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CATALOG NUMBER

For 1934-35

Announcements

1935-36

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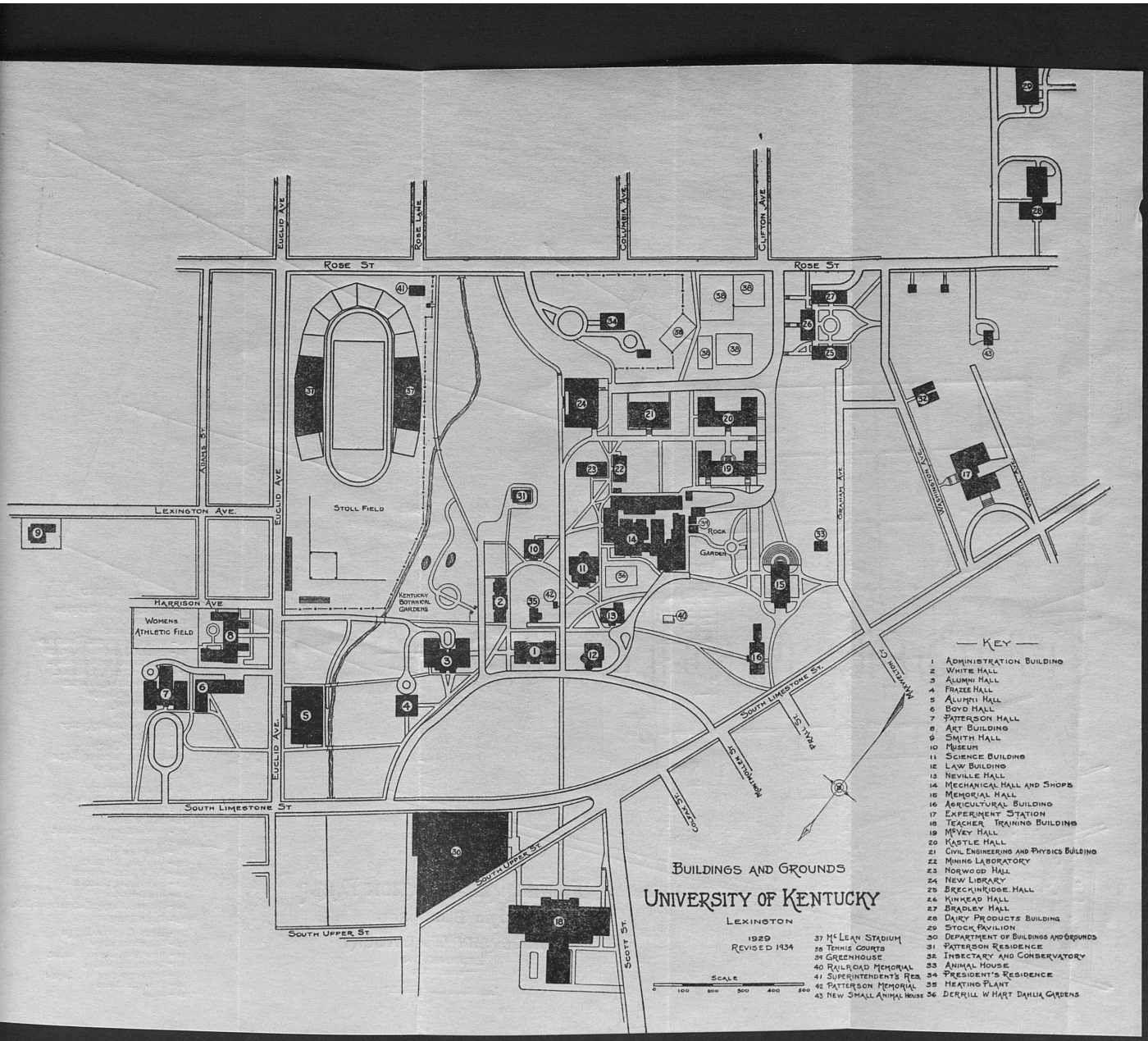
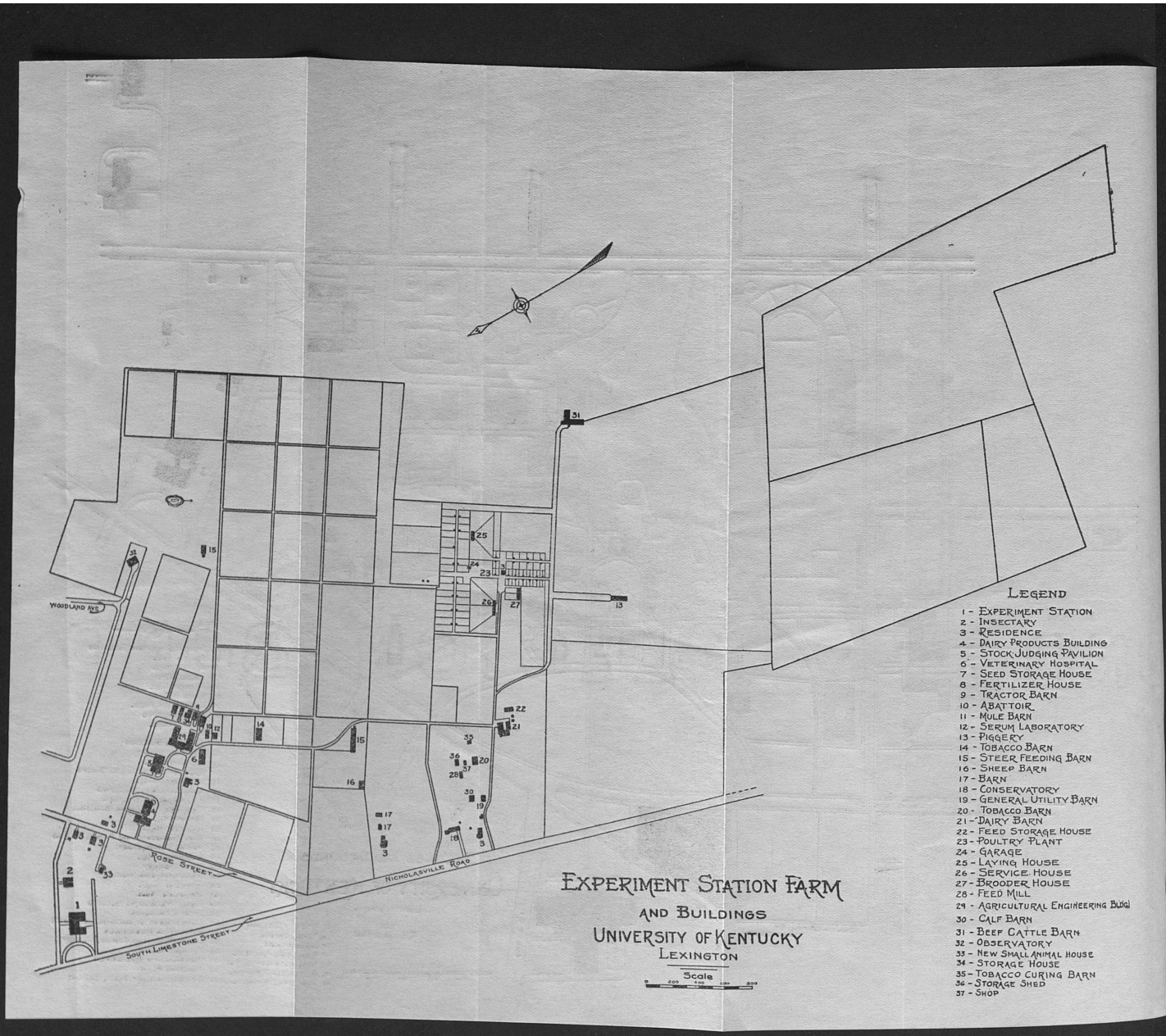

Buildings and Grounds
University of Kentucky
Lexington
1929
Revised 1934
Scale
0 100 200 300 400 500
Key
1 Administration Building
2 White Hall
3 Alumni Hall
4 Frazee Hall
5 Alumni Hall
6 Boyd Hall
7 Patterson Hall
8 Art Building
9 Smith Hall
10 Museum
11 Science Building
12 Law Building
13 Neville Hall
14 Mechanical Hall and Shops
15 Memorial Hall
16 Agricultural Building
17 Experiment Station
18 Teacher Training Building
19 McVey Hall
20 Kastle Hall
21 Civil Engineering and Physics Building
22 Mining Laboratory
23 Norwood Hall
24 New Library
25 Breckinridge Hall
26 Kinkead Hall
27 Bradley Hall
28 Dairy Products Building
29 Stock Pavilion
30 Department of Buildings and Grounds
31 Patterson Residence
32 Insectary and Conservatory
33 Animal House
34 President's Residence
35 Heating Plant
36 Derrill W Hart Dahlia Gardens
37 McLean Stadium
38 Tennis Courts
39 Greenhouse
40 Railroad Memorial
41 Superintendent's Res.
42 Patterson Memorial
43 New Small Animal House
Rose St
Euclid Ave
Rose Lane
Columbia Ave
Clifton Ave
Adams St
Lexington Ave.
Harrison Ave
Womens Athletic Field
Stoll Field
Kentucky Botanical Gardens
Rock Garden
Graham Ave
Washington Ave
Virginia Ave
South Limestone St
South Upper St
Scott St
Prall St
Montmollen St
Colfax St
Maxwelton Ct



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
29 - AGRICULTURAL ENGINEERING BUILDING
30 - CALF BARN
31 - BEEF CATTLE BARN
32 - OBSERVATORY
33 - NEW SMALL ANIMAL HOUSE
34 - STORAGE HOUSE
35 - TOBACCO CURING BARN
36 - STORAGE SHED
37 - SHOP

CATALOG NUMBER
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LEXINGTON, KENTUCKY

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UNIVERSITY CALENDAR FOR 1935–36

FIRST SEMESTER

1935

September 16	Monday, 7 a. m.–10 a. m. Registration of freshmen.
September 17,18	Tuesday, Wednesday. Registration for upper classmen.
September 19	Thursday. Class work begins.
September 23	Monday. Last date for making changes in registration or in the schedule without payment of fees.
September 30	Monday. Last date on which a student may enter an organized class.
September 30	Monday. Last date on which a subject may be dropped without a grade by permission of the Dean.
October 14, 15	Monday, Tuesday. Period for filing application for degrees to be granted in 1936.
November 28	Thursday, 8 a. m. to Friday, 8 a. m. Thanksgiving holiday.
December 10	Tuesday. Meeting of Board of Trustees.
December 21	Saturday noon. Christmas holiday begins.

1936

January 6	Monday, 8 a. m. Christmas holiday ends.
Jan. 25–Feb. 1	Saturday to Saturday. Mid-year examination.
February 2	Sunday. Baccalaureate services for candidates for degrees.
February 3	Monday. First semester commencement.

SECOND SEMESTER

February 4, 5	Tuesday, Wednesday. Registration for second semester.
February 6	Thursday. Instruction resumed.
February 11	Tuesday. Last date for making changes in registration or in the schedule without payment of fees.
February 17	Monday. Last date on which a student may enter an organized class.
February 17	Monday. Last date on which a subject may be dropped without a grade by permission of the Dean.
February 24	Monday. Date for filing applications for degrees, by students who were not in school the first semester.
April 7	Tuesday. Meeting of the Board of Trustees.
April 9–14	Thursday, 8 a. m. to Tuesday, 8 a. m. Easter holidays.
May 1	Friday. May Day. (Classes adjourned after second hour.)
May 27	Wednesday afternoon. Military Field Day.
May 28	Thursday, 9 a. m. Last date for reporting grades for candidates for degrees.
May 28–June 4	Thursday to Thursday. Final examinations.
June 4	Thursday. Baccalaureate address.
June 4	Thursday. Meeting of Board of Trustees.
June 5	Friday. Sixty-Ninth Annual Commencement.
June 8–13	Monday to Saturday. Junior Club Week.
June 15	Monday. Registration for first term of summer session.
July 20	Monday. Registration for second term of summer session.
August 21	Friday. Summer School Commencement.

Part I

OFFICERS OF ADMINISTRATION AND INSTRUCTION

BOARD OF TRUSTEES

1. EX OFFICIO MEMBERS

Ruby Laffoon, Governor
James H. Richmond, Superintendent of Public Instruction
Eugene T. Flowers, Commissioner of Agriculture

2. FROM THE STATE BOARD OF AGRICULTURE

James Rash, Henderson, 1936
W. C. Hanna, Shelbyville, 1940
C. O. Graves, 1938†
O. C. Whitfield, Madisonville, 1938

3. MEMBERS AT LARGE

Richard C. Stoll, Lexington, 1936
Robert G. Gordon, Louisville, 1936
Joe B. Andrews, Newport, 1940
Miller Holland, Owensboro, 1938
G. C. Wells, Paintsville, 1938
E. O. Robinson, 1940*
John S. Cooper, Somerset, 1940

4. ALUMNI MEMBERS

Louis Hillenmeyer, Lexington, 1936
James Park, Lexington, 1940
Dr. George Wilson, 1938

OFFICERS OF THE BOARD

Ruby Laffoon, Chairman
Richard C. Stoll, Vice Chairman
D. H. Peak, Secretary
John Skain, Treasurer

EXECUTIVE COMMITTEE

Richard C. Stoll, Chairman
Robert G. Gordon
Joe B. Andrews
James Park
Miller Holland

*Deceased
†Resigned

ADMINISTRATIVE OFFICERS AND STAFF

GENERAL

OFFICE OF THE PRESIDENT

Frank LeRond McVey, B. A., Ph. D., LL. D., President of the University
Jane J. Nichols, Secretary
Eloise Conner, M. A., Stenographer
Robert K. Salyers, A. B., Assistant

OFFICE OF THE BUSINESS AGENT

David Howard Peak, A. M., Business Agent
Linn Hemingway McCain, Accountant
Minnie Pherigo, Order Clerk
Mabel Lewis Hankes, Assistant Accountant
Ruth Earnest, Voucher Clerk
Emma G. Merrell, 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
Jessie Wilson, M. A., Assistant Recorder
Bessie O. Cleveland, Transcript Clerk
Ruth Lee, Stenographer
Queenie Morrow Grable, M. A., Assistant Secretary
Sarah Utterback, M. A., Statistical Clerk

DEAN OF MEN

T. T. Jones, M. A., Ph. D., Dean of Men
Bess Parry, A. B., Secretary
Columbus Rudolph Melcher, A. M., Dean of Men Emeritus

DEAN OF WOMEN

Sarah Gibson Blanding, A. M.
Sarah Bennett Holmes, A. B., Assistant Dean
Anita Gardner, Secretary

SECRETARIAL AND CLERICAL STAFF

Nancy Bentley, Department of Mining and Metallurgical Engineering
Cassie P. Bobbit, Bureau of School Service
Olive Gresham Bowden, Office of Dean of College of Education
Virginia Boyd Cox, A. B., Secretary, Music Department
Mary Williams Brock, Secretary, Department of Psychology
Elise Adele Bureau, A. B., B. S., Administrative Offices of College of Engineering
Eva Downing, Clerk, Department of University Extension
Martha Duncan Couch, Bureau of Business Research
Willena Duncan, Office of Dean of College of Arts and Sciences
Mary Dunne, A. B., Department of Military Science
Louise Ewing, Department of Mechanical Engineering
*Marie Forsting, Office of Director of University Training School
Katherine Hammack, A. B., Placement Bureau
Algar Hanks, Master Sergt. Clerk, Military Science Department
Willa Belle Hamilton, Department of Home Economics
Mary Cole Holloway, A. B., Secretary, English Department
Margaret Bell Humphries, Bureau of School Service
Beatrice Jacobs, Clerk, Department of University Extension
Mary Kerr, A. B., Offiice of Director of University Training School
Edna May Kirk, Office of Director of Summer Session
Bethel Lipps, Clerk, Department of University Extension
Edith Love, Department of Chemistry
Cecil McConathy, Department of Civil Engineering
Marjorie Mitchell, A. B., Department of Physics
Ruby H. Murphy, Secretary, Department of University Extension
Margaret O'Connell, Secretary, Physical Education Department
Beatrice R. Skidmore, Administrative Offices, College of Engineering
Marie Dickerson Stephenson, Department of Vocational Education
Billy Whitlow, A. B., Office of Director of Summer Session

STENOGRAPHIC BUREAU

Mary Johnston, Head Stenographer
Mabel Thacker Allen, Stenographer
Jessie Lee Jones, Stenographer
Mildred Morris, A. B., Stenographer

UNIVERSITY COMMONS

L. Maye Hoover, M. S., Director

---

* Resigned April 1, 1935.

POST OFFICE

CARRIE BEAN, Postmaster
ELOISE GRAY WEBB, Assistant Postmaster

CAMPUS BOOK STORE

JAMES E. MORRIS, A. B., Manager
LLOYD Q. MAUTZ, Assistant Manager
BESS MAYES, Secretary

LIBRARIES

MARGARET ISADORA KING, A. B., B. S., University Librarian
*HALLIE DAY BLACKBURN, A. B., Asst. Cataloger
BESSIE MARY BOUGHTON, A. B., Asst. Cataloger
JACQUELINE BULL, A. B., Secretary to Librarian
NORMA B. CASS, A. B., B. S., Reference Librarian
DAISY T. CROFT, A. B., Head of Circulation Department
MARY ELIZABETH HANSON, A. B., B. S., Periodical Librarian
*MARY ADA HONEY, Secretary to Librarian
MARGERY P. HORNSBY, B. L. E., A. B., Librarian in charge of gifts and exchanges
CATHERINE KATTERJOHN, A. B., B. S., Substitute Cataloger
JANE ANN MATHEWS, A. B., Acting Assistant in Reference Dept.
ANNIE SUE MONTGOMERY, A. B., B. S., Asst. Reference Librarian
MILDRED SEMMONS, A. B., Head of Department of Library Science
ELLEN B. STUTSMAN, A. B., Head Cataloger
ARTIE LEE TAYLOR, Librarian in charge Reserved Book Room
MARGARET HELMSING TUTTLE, A. B., B. S., Librarian in charge of Department Libraries
EMMA JANE WALKER, B. S., Order Clerk
CLARA W. WHITE, Librarian in charge of Educational Collection
ANNETTE ZINK DAVIS, A. B., LL. B., Law Librarian
GRACE L. SNODGRASS, A. B., Librarian, Experiment Station
LUCY GRAGG WOOD, A. B., B. S., Librarian, Training School Libr.

UNIVERSITY Y. M. C. A.

BART NIXON PEAK, A. B., Secretary
MARTHA HUBER, Assistant

UNIVERSITY Y. W. C. A.

AUGUSTA ROBERTS, A. B., Secretary

RESIDENCE HALLS

EDA M. GILES, Director of Residence Halls for Women
DORA K. BERKLEY, Director of Patterson Hall
MARGARET CHENAULT CRUTCHER, Men's Residence Halls

---

* On leave 1934-35.

OFFICE OF SUPERINTENDENT OF BUILDINGS AND GROUNDS

M. J. Crutcher, B. M. E., Superintendent
Thos. D. Boyd, B. S., Assistant
Laura Shade, Secretary
Claude Dickerson, Steam-Fitting and Plumbing Foreman
Carvel Hensley, Painter Foreman
G. C. Jones, Carpenter Foreman
Julius Rominger, Gardener
L. D. Kitchen, Electrician
Howard Jones, Custodian Men's Gymnasium
John Heckler, Supervisor of Janitors
H. O. Bradshaw, Labor Foreman

UNIVERSITY DISPENSARY

John S. Chambers, M. D., Director
Oliver H. Pinney, M. D., Associate Director
F. C. Thomas, M. D., Physician
*Frank A. Hughes, M. D., Physician
George Fergison Doyle, M. D., Physician
†Wilbur A. Heinz, A. B., Instructor
Elizabeth Desha, Registered Nurse
Lillie Davis, Registered Nurse
W. Brooks Hamilton, Bacteriologist and Instructor
Marvin Dunn, Technician
Katherine W. Owens, Secretary

BUREAU OF MINERAL AND TOPOGRAPHICAL SURVEY

Arthur C. McFarlan, A. B., Ph. D., Director and State Geologist
David M. Young, A. B., M. S., Curator of Museum and Assistant Geologist

ALUMNI ASSOCIATION

Robert K. Salyers, A. B., Secretary

PUBLICITY BUREAU

Elmer G. Sulzer, A. B., Director
Helen King, A. B., Assistant

---

* Died Nov. 24, 1934.
† On leave 1935-36.

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 OF ENGINEERING

JAMES HIRAM GRAHAM,† B. C. E., C. E., Dean
WILLIAM EDWIN FREEMAN, A. B., E. E., Acting Dean*
DANIEL VOIERS TERRELL, C. E., Acting Dean**
ETHEL JELLEY, Secretary

THE COLLEGE OF LAW

ALVIN E. EVANS, M. A., Ph. D., Dean
DOROTHY SALMON, B. S., Secretary

THE COLLEGE OF EDUCATION

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LUCY BLAKEMORE GARDNER, M. A., Secretary

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JANE EARLE MIDDELTON, A. B., Secretary

THE GRADUATE SCHOOL

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MARY FRANCES KRIEGEL, A. B., Secretary

THE SUMMER SESSION

JESSE E. ADAMS, A. M., Ph. D., Director

THE UNIVERSITY EXTENSION

LOUIS CLIFTON, M. A., Director University Extension

---

* On leave second semester 1934-35.
** Acting Dean second semester 1934-35.
† Elected June, 1935.

ALPHABETICAL LIST OF OFFICERS OF ADMINISTRATION AND INSTRUCTION AND EXPERIMENT STATION STAFF

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

ADAMS, ESTELLE, M. A. — 336 Linden Walk
Second Grade Critic Teacher

ADAMS, JESSE E., A. M., Ph. D. — Montclair Subdivision
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* On leave 1935-36.
† Resigned June 30, 1935.

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* On leave 1935-36.
† On leave 1934-35.

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Field Agent in Junior Club Work, Agricultural Extension Division

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Assistant in Farm Management, Experiment Station

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Assistant Western Kentucky Sub-Station

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Assistant in Chemistry, Experiment Station

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Assistant Professor of Art

CANADAY, EMMETT JOHN, A. B., M. A., 819 S. Limestone
Instructor in Mathematics

CAPURSO, ALEXANDER, B. S. in Music, M. A. 661 Maxwelton Court
Teacher of Music, University School

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Assistant Professor of Agricultural Economics, Assistant in Markets, Experiment Station

CARRELL, WILLIAM JOSEPH, C. E. 411 Linden Walk
Professor of Structural Engineering

CARTER, LUCIAN HUGH, M. A., Ph. D. 379 South Broadway Park
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Field Agent in Poultry, Agricultural Extension Division

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CHAMBERLAIN, LEO MARTIN, A. M., Ph. D. 203 Sycamore Road
Professor of Educational Administration, Head of Department, Director Bureau of School Service

---

* Resigned Dec. 31, 1934.
† On leave second semester 1934-35.

CHAMBERS, ALVIN LEE, C. E. 827 Sunset Drive
Assistant Professor of Testing Materials

CHAMBERS, JOHN SHARP, B. S., M. S., M. D. 121 Waller Avenue
Head Department of Hygiene and Public Health, Director of Dispensary

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Assistant Professor of History

‡CLEVELAND, F. F., A. B., M. S. 188 Richmond Ave.
Instructor in Physics

CLIFTON, LOUIS, A. B., A. M. 125 State Street
Assistant Director of University Extension

†CLYDE, PAUL H., A. B., A. M., Ph. D. 434 Oldham Ave.
Professor of History

COHEN, LEON W., A. B., A. M., Ph. D. 176 Market St.
Associate Professor of Mathematics

COLE, ESTHER, Ph. D. 12 Dunn Apts., South Limestone
Assistant Professor of Political Science

COLEMAN, EVELYN Winchester Pike
Teacher of Hygiene and Physical Education, University School

CONRAD, WILLIAM K., B. S. in M. E. 1033 South Limestone
Instructor in Machine Design

CONROY, KATHERINE, A. B., M. A. 146 McDowell Road
Sixth Grade Critic Teacher

COOPER, THOMAS POE, B. S. 1312 South Limestone
Dean College of Agriculture, Director of Experiment Station, Director Agricultural Extension Division

CRAWFORD, ALBERT BYRON, Ph. D. 123 University Ave.
Assistant, Bureau of School Service

*CRAYTON, SHERMAN G., M. A., Ph. D. 416 Ridgeway
Director of University High School and University Elementary School

CRISWELL, HOWARD D., 1st Lieutenant Inf. (D. O. L.) 112 Johnson Blvd.
Assistant Professor of Military Science

CROUSE, CHARLES STEVENS, E. M. 137 Waller Avenue
Professor of Metallurgy, Head of the Department of Mining and Metallurgical Engineering

---

‡ Resigned September 1934.
† On leave 1933-34 and one semester 1934-35.
* On leave 1935-36.

CRUTCHER, MAURY JULIAN, B. M. E. 421 Rose Street
Superintendent of Buildings and Grounds

CULLIS, MRS. LELA 327 Aylesford Place
Instructor in Applied Music (Organ)

CUNOV, HARVEY FREDERICK, B. S. C. 122 Hamilton Park
Assistant Bacteriologist, Experiment Station

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

DANIEL, ETHELEEN, B. S., M. A. Cromwell Apartments
Fifth Grade Critic Teacher

DANTZLER, LEHRE LIVINGSTON, A. M., Litt. D. 1533 South Limestone
Professor of Philology, Head of Department of English

DAVENPORT, IRIS, M. A. 110 Maxwelton Ct.
Field Agent in Home Economics, Agricultural Extension Division

DAVIS, JOSEPH MORTON, M. A. 340 Madison Place
Professor of Mathematics, Emeritus

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STEWART, OLUS JESSE, A. B., M. S., Ph. D. — 1303 Audubon Ave.
Associate Professor of Chemistry

STOUT, FLORENCE OFFUTT — 129 Preston Avenue
Professor of Physical Education

STRIPLIN, CHARLES F. — 809 Tremont Ave.
Assistant Trainer, Custodian Athletic Equipment

STURGEON, NEWTON R. — 402 Clifton Avenue
Instructor in Foundry

SULLIVAN, HARRIS M., M. S. — 258 Rodes Ave.
Part-Time Instructor in Physics

SULLIVAN, RODMAN, A. B., A. M. — 1401 S. Limestone
Assistant Professor of Economics

SULZER, ELMER GRIFFITH, A. B. — 422 Aylesford Place
Director of Publicity Bureau

SUTHERLAND, WILLIAM ROBERT, A. B. — 136 E. Second St.
Assistant Professor of English

TAYLOR, ESTHER M. — Louisville
Part-Time Instructor in Sociology

TAYLOR, JESSIE TERRY — 206 University
Seed Analyst, Experiment Station

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

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

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

TERRELL, WILLIS GRANVILLE 204 State Street
Inspector of Feed and Fertilizer, Experiment Station

TERRY, GEORGE S., M. A. 613 Columbia Ave.
Bacteriologist, Public Service Laboratories, Experiment Station

THOMAS, FRANK CARLTON, A. B., M. D. 211 South Hanover
Part-Time Physician, University Dispensary

THURMAN, GORDON OWEN 396 Linden Walk
Head of Department of Practical Mechanics, Superintendent of Shops

*TODD, JARVIS, M. A. 1135 Richmond Road
Assistant Professor of Physics

TOLMAN, WILLIAM A., A. B., M. A. 140 Ransom Avenue
Instructor in Economics

TRIMBLE, ERNEST G., A. B., Ph. D. 123 Goodrich Avenue
Assistant Professor of Political Science

TRIPLETT, AUSTIN, Captain U. S. Army 108 Desha Road
Assistant Professor of Military Science

TUCKER, THOMAS C. 1705 South Limestone
Instructor in Wood Shop

TURNER, JOB DARBIN, B. Ped., LL. B. 135 Washington Ave.
Head of the Department of Feed Control, Experiment Station

TUTHILL, EDWARD, A. B., Ph. D. 253 South Limestone
Professor of History, Head of the Department

TUTTLE, FRANKLIN ELLIOTT, M. A., Ph. D. 125 East Maxwell
Professor of Chemistry, Head of the Department, Emeritus

TWOMEY, TED ALOYSIUS, B. C. S. 809 Tremont Ave.
Assistant Varsity Football Coach

VALLEAU, WILLIAM DORNEY, Ph. D. 1041 South Limestone
Professor of Plant Pathology; Pathologist, Experiment Station

VANDENBOSCH, AMRY, Ph. D. 122 Johnston Blvd.
Professor of Political Science, Acting Head of Department

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† Acting Dean second semester 1934-35.
* On leave 1934-35.

VAUGHN, ERLE C., A. B. 157 Penmoken Park
Field Agent in Improved Seed Production, Agricultural Extension Division

VAUGHN, MARY BELLE, B. S. Versailles, Ky.
Critic Teacher in Home Economics

VENNES, L. A., M. S. 203 Sycamore Road
Field Agent in Markets, Agricultural Extension Division

WADE, GERTRUDE ELIZABETH, A. M. Preston Arms Apts.
Associate Professor of Home Economics

WALTMAN, CLAIR SMITH, M. S. 109 Shawnee Place
Instructor in Horticulture, Assistant in Horticulture, Experiment Station

WARBURTON, F. W., A. B., Ph. D. 141 Iroquois Court
Associate Professor of Physics

WARD, WILLIAM S., A. B., M. A. 1033 South Limestone
Instructor in English

WATKINS, ISAAC G. 333 Clifton Avenue
Assistant in Electrical Laboratory

WEAVER, RALPH HOLDER, M. S., Ph. D. 347 Transylvania Pk.
Associate Professor of Bacteriology

WEBB, LOUISE GRAY 656 East High Street
Instructor in Mechanical Drawing

WEBB, WILLIAM SNYDER, M. S. Cherokee Park
Professor of Physics, Head of the Department, Professor of Archaeology, Head of Department of Anthropology and Archaeology

WELCH, EARL G., B. S. 108 Hamilton Park
Field Agent in Agricultural Engineering, Agricultural Extension Division

WELDON, MYRTLE, A. M. 235 East Maxwell
State Leader of Home Demonstration Agents, Agricultural Extension Division

WEST, MARY LUCILLE, M. A. Preston Arms
Critic Teacher in the Languages

WHITAKER, PAUL K., A. B., M. A. 449 E. High
Instructor in German

WHITE, M. M., M. A., Ph. D. 136 Shawnee Place
Professor of Psychology

WHITEHOUSE, JAMES W., M. S. 127 Waller Avenue
State Leader in Junior 4-H Club Work, Agricultural Extension Division

WIEST, EDWARD, A. M., Ph. D. 1020 Fontaine Road
Professor of Economics, Dean of the College of Commerce

WIGGINS, G. H., B. S. Quicksand, Kentucky
Forester, Robinson Substation

WILFORD, EDWARD JAMES, M. S. in Agr. 703 Rose Street
Associate Professor of Animal Husbandry in Charge Meats Laboratory, Assistant in Animal Husbandry, Experiment Station

*WILKINS, JAMES E., E. E. 189½ North Limestone
Instructor in Electrical Engineering

WILLIAMSON, MARY LOIS, B. S., M. S. 110 Maxwelton Ct.
Instructor in Home Economics Education

WILLSON, LOUISE, A. B. 265 Lyndhurst Place
Third Grade Critic Teacher

WILSON, WILLIAM CLARK, B. S. 322 McDowell Road
Assistant State Agent, Agricultural Extension Division

WOOD, LUCY GREGG, A. B., B. S. 327 S. Upper
Librarian, University High School and University Elementary School, Part-Time Instructor in Library Science

WOODS, RALPH HICKS, M. A., Ph. D. 128 Arcadia Park
Associate Professor of Agricultural Education

WYNNE, CHESTER ALLEN, LL. B. 146 Cherokee Park
Director of Athletics

YATES, LAWRENCE, M. A. 175 Kentucky Ave.
Assistant Professor of English

YOUNG, DAVID M., A. B., M. S. 445 Transylvania Park
Instructor in Geology, Curator, Museum

YOUNG, DAVID W., B. S., M. S. 249 Delmar Avenue
Assistant in Chemistry, Experiment Station

ZEMBROD, ALFRED CHARLES, M. A. 456 W. Fourth Street
Professor of Romance Languages and Literature, Head of the Department, Emeritus

* On leave 1934-35.

SECRETARIAL AND CLERICAL STAFF OF THE EXPERIMENT STATION

BAKER, DORA
Clerk, Extension Division

BASCOM, KATHERINE
Clerk, Experiment Station

BUSH, LUCILE
Clerk, Extension Division

CASWELL, ETHEL V. T.
Clerk, Experiment Station

CASWELL, JESSIE FRAZER
Clerk, Experiment Station

CHASE, GARNETT RAINEY
Clerk, Experiment Station

COMBS, SOPHIA
Clerk, Teaching Division

COX, TILLA
Clerk, Extension Division

DOLAN, MARY
Clerk, Experiment Station

FRIED, KATHERINE
Clerk, Extension Division

FRIED, KATHERINE E.
Clerk, Experiment Station

FUGAZZI, FRANCES
Clerk, Experiment Station

GINOCCHIO, OLEVA L.
Secretary to the Dean and Director

GOLDEN, SARAH K.
Clerk, Experiment Station

GRAVES, LUCILLE
Clerk, Experiment Station

GUYN, MARY LOU
Clerk, Teaching Division

LAWRENCE, NELLIE MAE
Clerk, Experiment Station

MCCULLOUGH, ANNE
Clerk, Experiment Station

MEEKS, MARIETTA GERARD
Clerk, Extension Division

MERRITT, FANNY BUSH
Clerk, Experiment Station

MOORES, HAZEL
Clerk, Extension Division

MORRIS, MARGARET G.
Clerk, Experiment Station

PHARIS, LOULA FLORENCE
Clerk, Experiment Station

RAMSEY, MATTIE
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.
Secretary, Office of the Dean

SNODGRASS, GRACE LEE
Librarian, Experiment Station

STILWELL, MARY E.
Clerk, Extension Division

UTTERBACK, MARY BRONSTON
Clerk, 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) together with four members elected by the University Senate.

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 recommendation 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

1934–35

1. Accredited Relations
   P. P. Boyd (Chm.), Ezra L Gillis, W. D. Funkhouser, Edward Wiest, W. S. Taylor, Alvin E. Evans

2. Athletics
   W. D. Funkhouser (Chm.), Enoch Grehan, P. P. Boyd, E. A. Bureau, M. E. Ligon.

3 Auditing Committee for Student Enterprises
   H. H. Downing (Chm.), H. E. Curtis, D. H. Peak, Robt. Haun.

4. Commencement Exercises
M. E. Ligon (Chm.), W. L. Roberts, Ezra L Gillis, Brinkley Barnett, Sarah G. Blanding, Eda M. Giles, B. E. Brewer, Flora LeStourgeon, R. D. McIntyre, A. J. Olney.

5. Duplication of Courses
Ezra L Gillis (Chm.), Jesse Adams, C. S. Crouse, E. S. Good, A. E. Evans, W. S. Webb, R. N. Maxson.

6. Extension Committee
Jesse E. Adams (Chm.), E. F. Farquhar, W. D. Funkhouser, W. W. Jennings, Louis Clifton, George Roberts.

7. Grants and Aids
D. V. Terrell (Chm.), S. A. Boles, B. L. Pribble, C. O. Wynn, T. T. Jones.

8. Library
George K. Brady (Chm.), J. W. Martin, Edward Tuthill, C. S. Crouse, John Kuiper, T. D. Clark.

9. Music
W. E. Freeman (Chm.), C. A. Lampert, Edward Wiest, Wellington Patrick, Elmer G. Sulzer, Frank C. Fowler, R. D. McIntyre.

10. Publication of Monographs
Edward Wiest (Chm.), E. F. Farquhar, George Roberts, A. C. McFarlan.

11. Rules
P. P. Boyd (Chm.), Ezra L Gillis, W. E. Freeman, Edward Wiest, W. S. Taylor, Sarah G. Blanding, L. J. Horlacher, Frank H. Randall.

12. Scholarship and Attendance
P. P. Boyd, T. T. Jones, L. J. Horlacher, Alvin E. Evans, W. E. Freeman, Ezra L Gillis, W. S. Taylor, Edward Wiest, Sarah G. Blanding.

13. Student Social Affairs
T. T. Jones (Chm.), A. J. Olney, Sarah G. Blanding, Eda M. Giles, B. E. Brewer.

14. Student Welfare
J. S. Chambers (Chm.), T. T. Jones, 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.

15. Study of Ability and Training
J. B. Miner, Edw. Wiest, Ezra L Gillis, C. C. Ross.

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 John B. 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 1916 the name was again changed to the University of Kentucky and additional maintenance was arranged by legislative act.

This institution at Lexington has a campus of 94 acres with forty buildings, and an 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, and by railroads; from the north by the Southern and L. & 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.

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

The various institutes, conferences, and short courses under the conduct of the University, touch the lives of many of Kentucky's citizens. 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 buildings of the University are listed below and may be located on the map facing page one of this catalog.

Administration Building
Law Building
Kastle Hall
Mechanical Hall
Woodshop and Machine Shop
Science Hall
Gymnasium and Armory
Frazee Hall
University Museum
Superintendent's Residence
President's Residence
Norwood Hall
Mining Laboratory
Agricultural Hall
Civil Engineering and Physics Building
University Library
McVey Hall
College of Education Buildings
Memorial Hall
Observatory
White Hall
Neville Hall
Gymnasium for Women
Men's Gymnasium
Women's Building
Patterson Hall
Smith Hall
Boyd Hall
Scovell Hall
Insectary and Conservatory
Animal House
Residences for Men: Breckinridge, Bradley and Kincaid Halls
Art Center and Guignol Theater
Dairy Building
Judging Pavilion
Agricultural-Engineering Building
Animal Laboratory

The University Library, of Georgian Colonial architecture and built of red brick with Bedford stone trimmings, is situated on the east end of the campus. The building was opened for use in 1931 and makes available 700 seats in various reading rooms, stacks, and seminar rooms. For advanced students, special facilities are afforded in the immediate vicinity of the books, and ample provisions are made for serving undergraduates.

The libraries of the University contain 165,000 volumes, of which 14,000 are deposited in 10 department libraries connected with laboratories and classrooms. The library receives regularly 1,172 periodicals and is a depository for U. S. government publications.

The Patterson Library, gift of former President Patterson, is housed on the fourth floor of the General Library. The Browsing Room, on the second floor, affords a comfortable place for relaxation in leisure moments and for the reading and enjoying of the special open shelf collection of interesting books. The display tables and wall cases located on the first floor, contain exhibits of interesting and rare books or museum objects owned by the University or loaned for its use.

In addition to the book facilities of the General Library and the department libraries, the faculty and students may use the closely associated Law Library, the Agricultural Experiment Station Library, the Training School Library, the Lexington Public Library, with its especially fine collection of old newspapers, and the Transylvania University Library, rich in early medical books and other historical material.

A guide to the use of the library is provided by a bulletin, available at the circulation desk, which presents the rules and regulations governing its use.

A staff of trained librarians is ready and willing to serve all members of the University and the general public.

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 it is recommended that he 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. Credits should be sent in before the opening of the term. Students who come from high schools not on the accredited list may enter if they successfully pass examinations for admission. Applicants for admission to the freshman class who are not residents of Kentucky and who do not rank in the upper two-thirds of their graduating class must also pass the examination for entrance.

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. Credit is not allowed on transfer for work done with the lowest passing grade.

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	1	Mathematics	
Foreign Languages*		Advanced Arithmetic	½—1
French	1 —3	Advanced Algebra	1
German	1 —3	Solid Geometry	½
Greek	1 —3	Trigonometry	½
Latin	1 —4	Sciences	
Spanish	1 —3	Biology	½—1
Social Sciences†		Botany	½—1
History and Civics	1 —4	Chemistry	½—1
Economics	½	General Science	½—1
Prob. of Democracy	1	Geology	½—1
Sociology	½	Physics	½—1
Education (including		Physical Geography	½—1
Psychology)	½—1	Physiology and Hygiene	½—1½
Teaching	1	Zoology	½—1

* Not less than one unit in Foreign Languages will be accepted.

† Students offering credit in Problems of Democracy may not offer credit in Sociology, Economics, and Civics.

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
		Typewriting	½—1

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 two residence halls for women and a cooperative house. There are three residence halls for men. These buildings are modern, well furnished, thoroughly heated and satisfactorily lighted. The atmosphere is homelike and pleasant. Each of the women's residence halls is under the supervision of a resident housemother, 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 spiritually. The dormitories for men are under the supervision of a resident director.

Applications for reservations in the residence halls should be made to the Dean of Women or the Dean of Men and should be accompanied by a deposit of $6.00 which will suffice for the general deposit paid by all students. This deposit will be returned at the end of the year, less any charges that may be assessed against it. If a room is reserved and not occupied the general deposit will be forfeited unless notice of cancellation is given the Dean of Men or Dean of Women before the opening of the term for which the reservation is made.

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‡ Not more than one unit may be offered for any one subject in Agriculture and Home Economics.

The University does not maintain dining halls in the men's dormitories. However, the University Commons, located on the third floor of McVey Hall, serves excellent and inexpensive meals. The Commons is conveniently located and students may easily get their meals there.

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 T. T. Jones 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, established 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. Chambers, and one full-time physician. Dr. O. H. Pinney, two part-time physicians, Dr. F. C. Thomas, eye specialist, Dr. Geo. F. Doyle, ear, nose and throat specialist. 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 roooms.

FEES AND EXPENSES PER SEMESTER

Total Fees for Regular Students

	*Registration Fee	Incidental Fee	Total
(Residents of Kentucky)			
All Colleges except Law	$5.00	$42.00	$47.00
College of Law	5.00	45.00	50.00

* The registration fee is payable each semester by all students and is not returnable.

(Non-Residents)

In all Colleges (in addition to other fees) $130

(Part-Time Students)

Undergraduate (except Law)	2.00	4.00 per cr. hr.
Graduate and Law	2.00	5.00 per cr. hr.

(Non-Residents)

Undergraduate (except Law)	2.00	5.00 per cr. hr.
Graduate and Law	2.00	6.00 per cr. hr.

(Auditors)

In lecture and recitation courses	2.00	1.00 per cr. hr.
In studio and laboratory courses	2.00	4.00 per cr. hr.

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 four-credit course in Applied Music.

$20.00 per semester for each student in two-credit courses 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, the total not to exceed $3.00.

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 and Board. Room and board in the residence halls for women is $260 a year, payable quarterly in advance.

Rooms in the Men's Residence Halls range from $37.50 to $49.00 per semester.

General Deposit. A general deposit of $6.00 will be required of all students, this to be returned at the end of the year less any charges that may be assessed against it. This deposit takes the place of a number of deposits formerly required.

Privileges Granted Ex-Service Men

Ex-service men who were residents of Kentucky at the time of enlistment in the World War, will be granted free tuition and free room rent in the residence halls for men. Application for ex-service privileges should be made to the Registrar of the University and if a room is desired special application should be made to the Dean of Men thirty days in advance of the opening of the semester or term. After that date, rooms not taken will be assigned other students.

Privileges Granted Children of Ex-Service Men

Children not under sixteen years of age and not over twenty-one years who have had their homes in Kentucky for the preceding twelve months and whose fathers were killed in action or died from other causes in the World War from April 6, 1917, to July 2, 1921, while serving in the army, navy or marine corps of the United States are entitled to receive aid under Sections 4376b-11 to 4376b-13, inclusive, of the 1930 Supplement to Baldwin's Edition of Carroll's Kentucky Statutes. Each war orphan is entitled to receive not more than $150 a year, this fund to be used in attending state maintained educational or training institutions and for the sole purpose of providing for matriculation fees, board, room rent, books and supplies. For this privilege, application must be made to the State Board of Education, Frankfort, Ky.

Refunds

The registration fee is not refunded and no other fees are refunded after the ninth week of the semester. Students leaving during the first nine weeks of the semester will receive a refund, the amount of which will depend upon the date of withdrawal.

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, valued 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.

Probation

A regular student who fails to pass in three-fourths of the normal load required by his college in his preceding year (preceding semester of a new student) may be placed on probation by the Committee on Scholarship and Attendance. If during the semester of probation he again fails to pass in three-fourths of the normal load, he may be dropped from the University for at least one semester. The Committee on Scholarship and Attendance has power to reinstate students who have been dropped for poor scholarship, and to place a student on probation at any time.

A part-time student, carrying less than three-fourths of the normal load, may be placed on probation by the Committee on Scholarship and Attendance if he fails to pass in half of the scheduled load.

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 Science in Medical Technology (B. S. in Med. Tech.)
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 Architectural Engineering (B. S. in A. E.)
Bachelor of Science in Electrical Engineering (B. S. in E. E.)
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.)
Master of Science in Civil Engineering (M. S. in C. E.)
Master of Science in Electrical Engineering (M. S. in E. E.)
Master of Science in Mechanical Engineering (M. S. in M. E.)
Master of Science in Metallurgical Engineering (M. S. in Met. E.)
Master of Science in Mining Engineering (M. S. in E. M.)
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

General

The Algernon Sidney Sullivan Medallions (Three)
Women's Self Government Association Prize ($100)
Young Men's Christian Association Key (Gold Key)
Graduate fellowships and scholarships

College of Agriculture

Alpha Zeta (Medal)
Block and Bridle Cups
Phi Upsilon Omicron (Medal)
James B. Haggin Memorial Essay Contest

College of Arts and Sciences

The Charles S. Brent Memorial Prize in American History
The Bennet Prizes
Mortar Board Prizes (Two Cups)
Members of University Debating Team
Interscholastic Tournament Prizes

Engish Department:
The Chi Delta Phi Prizes ($10 each)
Cale Young Rice Prizes ($10 each)
Kentucky Kernel Cup
Sigma Delta Chi Scholarship Keys

Military Department:

Colonel Freeman Cup and Streamer
Lafayette Hotel Cup
Lexington Herald Cup
Lexington Leader Cup
Phœnix Hotel Cup
Reserve Officers Training Corps (Honor Graduates)
Reserve Officers' Association of Central Kentucky
Rotary Citizenship Trophy
Scabbard and Blade Cup
University Cup

College of Commerce

The Chi Omega Sorority Prize ($25.00)

College of Engineering

E. G. Ellis Prize ($100)

College of Law

The Lafferty Medal

Loan Funds

General Loan Fund
Alumni Loan Fund
Skain Loan Fund
Hughes Loan Fund
Lexington Kiwanis Loan Fund
W. S. G. A. 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
Elizabeth Waddy Scholarship
Walter Patterson Scholarship

PROFESSIONAL AND HONORARY FRATERNITIES

Phi Beta Kappa
Sigma Xi
Pi Mu Epsilon (Math.)
Mortar Board (Hr. Sr. Girls)
Tau Beta Pi (Honor. Engineer)
Kappa Delta Pi (Honor. Educa.)
Theta Sigma Phi (Women's Journalism)
Phi Upsilon Omicron (Home Ec.)
Scabbard and Blade (Military)
Chi Delta Phi (Literary-Women)
Phi Beta (Music-Women)
Alpha Zeta (Agriculture)
Phi Alpha Delta (Law)
Beta Gamma Sigma (Honor. Commerce)
Phi Delta Phi (Law)
Lances (Junior)
Sigma Gamma Epsilon (Geology)
Alpha Chi Sigma (Chemistry)
Omicron Delta Kappa (Campus Leaders)
Sigma Delta Chi (Journalism-Men)
Omega Beta Pi (Pre-Med.)
Lamp and Cross (Senior)
Alpha Delta Sigma (Advertising)
Phi Mu Alpha (Music-Men)
Keys (Sophomore)
Phi Sigma Pi (Biological Science)
Eta Sigma Phi (Latin and Greek)
Pi Sigma Alpha (Political Science)
Phi Delta Kappa (Honor. Grad. Ed.)
Sigma Pi Sigma (Physics)
Order of Coif (Law)
Delta Sigma Pi (Commerce)
Cwens (Honorary Sophomore Women)
Beta Sigma Alpha (Social Service-Boy Scouts)
Phi Epsilon Phi (Botany)
Delta Kappa Alpha (DeMolays)

ORGANIZATIONS AND SOCIETIES

Agricultural Society
Block and Bridle Club
American Institute of Elec. Eng. (Student Branch)
American Society of Mech. Eng. (Student Branch)
American Society of Civ. Eng. (Student Branch)
American Society of Mining and Metallurgical Eng. (Student Branch)
Norwood Mining Society
Strollers
SuKy
White Mathematics Club
English Club
German Club
Cercle Francais
Ateneo Castellano
History Club
Young Men's Christian Association
Young Women's Christian Association
Women's Student Government Association
Men's Student Government Association
Woman's Pan-Hellenic
Inter-Fraternity Council
Pryor Premedical Society
Women's Athletic Association
Men and Women's Glee Clubs
Pan-Politikon
International Relations Club
Dairy Club
The Hort Club

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 and visiting preachers the opportunity is given the students to consult with sympathetic and able persons. The Newman Society cooperates 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 seven 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 lecturers to the University. The Art Department introduces not only to its students, but also to the whole University, exhibits of great paintings, of etchings, or drawings. The Music Department sponsors a philharmonic orchestra, a university band, men's glee club, and women's glee club, all of which 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, studies thru the various departments and activities of the University the social, political and cultural life of foreign countries. Departmental clubs add effectively to the cultural life of the University.

UNIVERSITY OF KENTUCKY

CONVOCATIONS AND SPEAKERS FOR 1934-35

Memorial Hall

CONVOCATIONS 1934-35.

September 13, 1934 "All University Convocation".
Address: President McVey

October 18—Dr. S. Parkes Cadman, Speaker.
Subject:

November 27 Dr. Goodwin Watson, Speaker.
Subject: "Building a New America".

December 17 President McVey, Speaker
Subject: "Between Us".

January 21 A. A. Berle, Jr., (Speaker) New York City
Subject:

February 28 Mr. Charles F. Kelley of Art Institute of Chicago.
Subject: "Art in Industry".

March 22 M. Guillaume Fatio, (Speaker)
Subject: "The Machinery and Activities of the League of Nations".

April 15 Prof. Robert A. Millikan of California Institute of Technology, Pasedena, Cal.
Subject: "The Social Significance of Science".

May 3 May Day Convocation.

May 31 Commencement, George Fort Milton, "The World You Live In".

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 yearbook 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 yearbooks. Both of these publications have had a long history. The Department of Psychology publishes the Personnel Bulletin and the College of Law publishes the Kentucky Law Journal. 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, 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.

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-five departments: Anatomy and Physiology, Ancient Languages and Literatures, Anthropology and Archaeology, Art, Bacteriology, Botany, Chemistry, English Language and Literature, Geology, German Language and Literature, History, Hygiene and Public Health, Journalism, Library Science, Mathematics and Astronomy, Military Science, Music, Philosophy, Physical Education, Physics, Political Science, Psychology, Romance Languages and Literature, Sociology, Zoology. These twenty-five departments have been grouped into four divisions: Literature, Philosophy and the Arts, Social Studies, Physical Sciences, Biological Sciences. The chairmen 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.

AIM

The aim of the College of Arts and Sciences is the training of the individual student as thoroughly as possible in the four years in the directions of his interest and powers, in order that he may lead a happy and useful life and contribute his share of leadership in social, intellectual, economic and political advancement.

The College strives to attain its purpose by imparting knowledge and by training the student in the proper methods of acquisition and use of knowledge, to the end that he may be broadly informed and skillful in the solution of problems, which is the essence of thinking and may develop habits of self-reliance, initiative, judgment and those inner resources that lead to self-mastery and happiness.

The distinctive character of the College is that it insists on an acquaintanceship with the main fields of intellectual interest and, in addition, as deep a knowledge as possible in the time allotted in some one special field. While all students are trained along lines useful in various vocations, the College emphasizes preparation *for* vocations

rather than *in* them by the building of a well-rounded life, rich in interests, resourceful, capable of continuous growth and of adaptation to times and circumstances.

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 concentration fields, leading to the degrees of A. B. and B. S.

2. Professional courses leading to special degrees: in Industrial Chemistry, in journalism, in music, and in medical technology.

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

4. Preprofessional 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. and B. S. and a degree in agriculture, engineering, law, education, commerce, medicine, dentistry,

6. Graduate courses leading to the Master's and the Doctor's degrees in the graduate school.

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, Bachelor of Science in Medical Technology. 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; and in the departments of Anatomy and Physiology, Ancient Languages, Economics, Geology, German, Mathematics and Astronomy, Philosophy, Physics, Political Science, Zoology pass a final comprehensive examination on his major subject. The detailed conditions are as follows:

* 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.

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 credit.

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 Studies, 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

The student is required to gain, while registered in the Upper Division, at least 40 credits in a Field of Concentration. These 40 credits are to be elected subject to the approval of his adviser and the dean of the college, and must be in courses not open to freshmen. The college recognizes two types of Fields of Concentration:

1. Fields consisting of departmentally or generically related courses.
2. Fields consisting of topically related courses.

Generically Related Fields

The college recognizes four general fields of generically related subject matter:

1. *Literature, Philosophy and the Arts*
   This field includes Ancient Languages and Literatures, Art, English Language and Literature, German Language and Literature, Journalism, Library Science, Music, Philosophy, Romance Languages and Literatures.

2. *Social Studies*
   This field includes Anthropology, Archaeology, Commerce, Economics, Education, History, Law, Philosophy, Political Science, Psychology (social phases), Sociology.

3. *Physical Sciences*
   This field includes Chemistry, Engineering, Geology, Mathematics, Astronomy, Military Science, Physics.

4. *Biological Sciences*
   This field includes Anatomy, Physiology, Agriculture (biological phases), Bacteriology, Botany, Chemistry (biological phases), Hygiene, Public Health, Physical Education, Psychology (biological phases), Zoology.

Courses outside of the formal field of concentration may be included in the required 40 credits if in the opinion of the adviser and the dean they contribute logically to the student's program of concentration.

The student is required to gain at least 15 of his required 40 credits in a department which he chooses as his major.

The dean and head of the major department will appoint an adviser for each student of the Upper Division. This adviser is to have general oversight of the student's work and especially of the content of the field of concentration.

During the last semester of the sophomore year, the student's program of concentration is to be worked out for the entire two years by the student and his adviser, and when approved by adviser and dean is to be filed in the dean's office and constitutes a part of the student's requirements for graduation. Alterations in this plan may later be made if they are approved by the adviser and the dean.

A minimum of 6 credits is required as a prerequisite for a major in any department. As a general rule the prerequisites are to be acquired while the student is registered in the lower division.

In order to avoid working a hardship upon students who wish to secure a teacher's certificate, it is provided that, if necessary, 6 credits in Education may be included in the 40 credits of the concentration field, in fields other than Social Studies.

A student electing a combination course in Arts and Medicine, Dentistry or Law, is required to complete 20 credits in his concentration field, before transferring to the professional school.

Topically Related Fields

The student may elect for his concentration field some topic, and choose for the field courses which contribute to this central interest. This may lead to choices of courses from two or more of the generically related fields.

Tutorial Work and Comprehensive Examinations

Students majoring in the departments of Anatomy and Physiology, Ancient Languages, Economics, Geology, German, Mathematics and Astronomy, Philosophy, Physics, Political Science and Zoology will be required to schedule tutorial courses as specified by their major departments and to take final comprehensive examinations covering their major work. Passing the comprehensive examination is a prerequisite for graduation for major students in these departments. If a student fails to graduate because of failure in this examination, he may be given another examination when his major department is satisfied that he has made sufficient additional preparation.

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 thorough, 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 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 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.

Classification in Foreign Languages

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 entrance 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 field 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 the College of Arts and Sciences, 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 must, 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.

Maximum and Minimum Credits Allowed

A regular student is required to carry, each semester, work

amounting to at least 12 credits. He may carry, without special permission, 16 credits.

To be eligible to carry extra work the student must have a standing* of at least 2 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 University during his senior year and have gained at least 30 credits in the University and have registered in this college during his last semester. 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

A maximum of 60 credits, taken by extension, may be counted toward the baccalaureate degree. Not more than 12 credits of extension work can be taken in one calendar year and not more than 6 of the last 12 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 science.

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 details of the course see the statement of the Department of Journalism.

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. 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.

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

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. See the statement of the Department of Music.

THE DEGREE OF B. S. IN MEDICAL TECHNOLOGY

The degree of B. S. in Medical Technology is offered to those who complete a required course, which will be found outlined under the Department of Bacteriology. The aim is to prepare men and women for positions in hospital laboratories, physicians' and surgeons' clinics, and federal, state and municipal laboratories. This course also fits the especially adapted student for either commercial or research laboratory work requiring a knowledge of medical bacteriology in its broadest sense.

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 have gained at least 20 credits in his field of concentration 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 "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 duplicating 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

The College of Arts and Sciences offers a two years' preparatory course for the study of medicine. This course complies with the entrance requirements of the American Medical Association and the Association of American Medical Colleges which hold for all American medical schools, except those which require three years or a degree for entrance.

As stated above, the student may also pursue a combination Arts-Medicine course spending three years at the University before transferring to the medical school and obtaining his A. B. or B. S. after the first year in medical school. See page — for the detailed requirements.

Students who complete a four years' course of study and, thereby, obtain their degrees will have time to meet the requirements for entrance to all medical schools. This gives an opportunity for a broader background in the natural and social sciences and the arts, which will be of advantage both in medical school and in later life. The student may elect any Field of Concentration and may major in any department of the field which he desires.

Since the requirements of Medical Schools vary considerably as to specified entrance subjects, it is essential that the student decide early as to the schools to which he wishes to apply for entrance and inform the adviser of pre-medical students. The Adviser will give him full information concerning the additional entrance requirements that are specified by the various medical schools.

RECOMMENDED COURSES 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 Chem.	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
Physical Edu. 1a	Gymnasium or Field Athletics		2	.7

* Students who plan to spend more than two years in the University may extend the required subjects into the third or fourth years and thus make room for Social Science and other arts courses in the lower division.

Second Semester

English 1b	English Composition	3		3.
Chemistry 1b	General Inorganic Chem.	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 18	Plane Trigonometry	2		2.
Mil. Science 1b	First Year Basic Course, Infantry	1	2	1.3
Physical Edu. 1b	Gymnasium or Field Athletics		2	.7

* Two years of Foreign Language in college are recommended, or the equivalent in high school, although a few medical schools require none or only 1 year. If the student is a candidate for the A. B. or B. S., he will be required to take from 1 to 3 years' work in Foreign Language, according to his entrance units.

† Prerequisite to Physics 2a. To carry this course, the student must have a standing of 2 or better.

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
†Chemistry 2a or	Organic Chemistry	3	4	5.
Chemistry 4	Qualitative Analysis	1	6	4.
Physics 1a or	General Physics	4	2	5.
Physics 2a	General College Physics	3	4	5.
German 2a or	Intermediate German	3		3.
Rom. Lang. 2a	French Reading	3		3.
*Elective	Elective	3		3.
Mil. Science 6a	Second Year Basic Course, Infantry	1	2	1.5
Physical Edu. 2a	Gymnasium or Field Athletics		2	.7

Second Semester

†Chemistry 2b or	Organic Chemistry	3	4	5.
Chemistry 8	Quantitative Analysis	1	8	5.
Physics 1b or	General Physics	4	2	5.
Physics 2b	General College Physics	3	4	5.
German 2b or	Intermediate German	3		3.
Rom. Lang. 2b	French Reading	3		3.
*Elective	Elective	3		3.
Mil. Science 6b	Second Year Basic Course, Infantry	1	2	1.5
Physical Edu. 2b	Gymnasium or Field Athletics		2	.7

* This should be a group requirement or a prerequisite for the major.
† Some medical schools require only 1 semester of Organic Chemistry.

Upper Division

The student in his junior and senior years will proceed to complete the group and field requirements and the additional specific requirements demanded by the medical school to which he will apply for admission. He should consult both his "major professor" and his "Pre-Medical Adviser."

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.

PRE-LAW COURSES

Two years of college work (sixty credits, exclusive of physical education and military science) will be required for admission to the College of Law, which preliminary work will usually be done in the College of Arts and Sciences. Students expecting to enter the College of Law later are advised to lay especial emphasis on English, history, economics, accounting, political science and psychology.

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.

TRAINING FACILITIES FOR SOCIAL WORK

Under present economic and social conditions there is an unprecedented demand for qualified social workers, and a demand that is constantly increasing. The work is in fact to a large extent becoming of professional character and on a professional basis. The extensive programs in particular of the Federal Government and of the State Government with respect to relief are providing wide opportunities for capable men and women with proper training. The American Red Cross also is a particular organization concerned with relief activities. Other forms of social work for which there is a greater or less call today are as follows: family welfare societies, charity organization societies, and associated charities; work in social settlements; leadership in boy scout work and corresponding work for girls; directing work in community centers and in playgrounds; work in prisons, reformatories, and other punitive and corrective institutions; probation and other forms of court work; work in home and institutions for the defective and dependent; various forms of child welfare work; medical social work; educational social work; directing and conducting 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; work in Y. M. C. A.'s and Y. W. C. A.'s and similar work.

To meet these new and enlarging demands, special schools of social work have been set up in certain of the larger cities of the country, while in some of the universities special training facilities have been made available. For the facilities offered at the University of Kentucky, see page —.

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 indispensable 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.

COURSES FOR NURSES

The college affords preliminary work for nurses. This covers anatomy and physiology, bacteriology, chemistry, hygiene and sanita-

tion, and 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.

Graduates of nursing schools approved by the University will be admitted with a maximum of 30 advanced credits.

LIBRARY SCIENCE

The college affords through the Department of Library Science, opportunity for thirty credit-hours of professional training in library work including practice and observation in well-organized libraries. The courses meet the standards of the Southern Assocation of Colleges and Secondary Schools, and are designed to fit students for librarianships in public school libraries and junior colleges, or for assistantships in the larger public and college libraries.

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, over fourteen years of age, and who conform to the physical requirements prescribed by the War Department.

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 qualify for a commission in the Officers' Reserve Corps of the army.

PUBLIC SERVICE CURRICULUM

Government service is offering an ever widening field of opportunity for the college trained man and woman. The last years have seen a tremedous increase in the number of civil employees. The

complexity of our public problems and the rising demand for an efficient public service has led to the demand for people qualified and trained for government positions.

The attention of students interested in this type of work is drawn to the courses of study prepared for various fields of public service. For further information concerning these courses, leading to a degree of Bachelor of Arts with a major in public service, see the statement of the Department of Political Science.

DEPARTMENTS OF INSTRUCTION

AGRICULTURE

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 at the University.

ANATOMY AND PHYSIOLOGY

Associate Professor Allen, Professor Pryor, Emeritus, Assistant Professor Sherwood and Assistant

The courses offered by the department are prepared with the purpose of making them of educational value and at the same time, providing a preliminary training in the theoretical aspects for those students who plan to study for advanced degrees in Anatomy, Physiology, or related subjects.

Pre-Medical students who intend to obtain their degree from the College of Arts and Sciences before entering the Medical School and who choose Anatomy and Physiology as their major will have met all the requirements and recommended courses of study of all medical schools.

Students of Anthropology, Art, Agriculture (Animal Husbandry, Animal Pathology, Genetics, Home Economics), Education, and Sociology will find advanced courses that will be of practical value to them.

Requirements for a Major. Prerequisites: Anatomy and physiology, 1a, 1b, or the equivalent; Chemistry, 1a, 1b; Zoology, 1a, 1b; Physics, one year. Required: Anatomy and Physiology, 116a, 116b and 14 additional credits of advanced work in Anatomy and Physiology. Major students are required to enroll in tutorial courses (A and P 116a, b) during the senior year and to pass a final comprehensive examination in the department.

Requirements in Field of Concentration. Forty credits in the field of Biological Sciences, including the major work, in courses not open to freshmen.

1a—GENERAL PHYSIOLOGY. This is an elementary course consisting of lectures, demonstrations and recitations. It includes the study of the chemical composition and general structure of the human body; nature and

properties of living protoplasm; the process of ossification or the formation and growth of bones; the skeleton; the structure and functions of the motor organs (muscles); the nervous system—structure and functions; and the special senses, namely, internal and cutaneous, smell, taste, hearing and vision. Not open to freshmen.

3 *credits; both semesters* (Allen, Sherwood)

1b—GENERAL PHYSIOLOGY. The course is a continuation of 1a. The vascular system, respiration, gastro-intestinal tract, digestion and absorption of foods, organs of excretion, production and regulation of the body's heat and the organs of speech are studied in detail. Not open to freshmen.

3 *credits; both semesters* (Allen, Sherwood)

3—PHYSIOLOGY. Required of Home Economics students; open to others. This is a study of the digestive system. The various organs of the system are considered separately with respect to location in body, structure and functions. Other systems of the body which are closely allied to the digestive system are also surveyed. Such are: The circulatory, respiratory and excretory. The latter are studied only in so far as they are related to the principal subject of the course. Lectures and recitations, two hours a week; laboratory, four hours a week.

Prerequisites: *Chemistry 1a and 1b or the equivalent.* 4 *credits; 1st semester* (Allen and Assistants)

4—ELEMENTARY ANATOMY. This course is arranged especially for students who are majoring in Physical Education; open to others. The muscles of a lower animal are dissected and carefully studied with respect to their relation with the bones of the animal's body. The results of the dissections are compared with the corresponding structures and arrangements found in the human body. This will be accomplished by means of charts and skeletons of the Human Being. Lecture, one hour a week; laboratory, four hours a week. Offered for 1935-36.

Prerequisite: *Sophomore standing.* 3 *credits; 1st semester* (Sherwood and Assistants)

5—PHYSIOLOGY. A course for students who are majoring in Physical Education but can be taken by others. Emphasis will be placed upon the physiology of muscle, circulation, respiration, digestion and absorption, energy metabolism, and excretion. Other subjects of the science will also be considered but not in great detail. Lecture, two hours a week; laboratory, two hours a week. Offered for 1935-36.

Prerequisite: *A. & P.* 4. 3 *credits; 2nd semester* (Allen and Assistants)

Courses open only to Upper Division and Graduate Students

103a to d—INDEPENDENT WORK IN ANATOMY. The pursuit of some advanced problems in anatomy under the direct supervision of the instructor. Discussion period, one hour a week; laboratory, four hours a week. Not given in 1934-35; not offered for 1935-36.

Prerequisites: *A. & P. 1a and 1b or 2a and 2b.* 3 *credits; both semesters* (Sherwood)

104a to d—INDEPENDENT WORK IN PHYSIOLOGY. A study of some advanced problem in physiology under the direct supervision of the instructor. Discussion period, one hour a week; laboratory, four hours a week. Given in 1934-35; not offered for 1935-36.

Prerequisites: *A. & P. 1a and 1b or 2a and 2b; Chemistry 1a and 1b.* — 3 *credits; 1st semester* (Allen)

105--ARCHITECTURE OF THE HUMAN SKELETON. The course is designed for the student who anticipates further advanced study in Anatomy and Physiology, for students of Anthropology, for students in Art, and for those who are preparing for the study of medicine. The study begins with the development of the skeleton and joints. This is followed by the process of ossification and the histology of bones. Each bone is studied in detail, organized demonstrations are given with architecture and function being stressed. Variations in the skeleton are considered. When possible, the bone is compared with that of the lower vertebrates. The physiology of the bone, joint and muscular relations are studied in detail. Lecture and recitation, one hour a week; laboratory, six hours a week. Offered for 1935-36.

Prerequisite: *Junior standing.* — 4 *credits; 1st semester* (Sherwood and Assistant)

106—INTRODUCTION TO ENDOCRINOLOGY. An introductory study of the glands of internal secretion or endocrine glands in which the general development, anatomical location and structure, and fundamental functions of the organs will be presented. The purpose of the course is to give a general knowledge that will be of value not only to the student of Anatomy and Physiology and related subjects but also, to those of educational and sociological interests. Lectures and recitations, three hours a week. Offered for 1935-36.

Prerequisites: *A. & P. 1a and 1b or the equivalent; Zoology 7b; Chemistry 1a and 1b; and the instructor's consent.* — 3 *credits; 2nd semester* (Allen)

107—ADVANCED ANATOMY. An introduction to the anatomy and physiology of the nervous system. The aim of the course is to provide an introductory laboratory course on the form, structure and functional arrangements of the nervous system for students of biology, physiology, psychology and those preparing for the study of medicine. The work of the course includes a careful study of the nervous systems of vertebrates. The simpler types of nervous system are compared with that of man. The development of the various reflexes are considered. The relation of the structure of the nervous system to psychological reactions are studied. Lectures and recitations, two hours a week; laboratory, four hours a week. Offered for 1935-36.

Prerequisites: *A. & P. 1a and 1b or the equivalent.* — 4 *credits; 2nd semester* (Sherwood)

108a—ADVANCED PHYSIOLOGY. The course is designed for students who anticipate further advanced study in physiology and also, for those who are preparing for the study of medicine. In the course, graphic records which show the character of contraction of muscle (skeletal and smooth) are made. This is followed by observing the different factors that

vary the character of the contraction. Experiments are performed to show that muscle is a thermogenic and an electrogenic organ. The nervous system which includes the structures and functions of the spinal cord, the medulla oblongata, the cerebellum, the cerebrum and the autonomic system are taken up in great detail. The course will close with an intensive study of the special sense organs. Practically half of the semester will be devoted to the nervous system. Lectures and recitations, two hours a week; laboratory, four hours a week. Given in 1934-35; offered for 1935-36.

Prerequisites: *A. & P.* 1*a and* 1*b; Chemistry* 1*a and* 1*b; Physics* 1*a and* 1*b.* 4 *credits; 1st semester* (Allen, Sherwood)

108b—ADVANCED PHYSIOLOGY. This is a continuation of 108a. The course is opened with the study of the circulatory system. Much time is given to the consideration of the mechanics of the heart, its nervous regulation and the functional peculiarities of its tissues. The mechanics of the circulation (hemodynamics) which includes the nervous regulation of the blood vessels are also surveyed. Other subject material to be covered consists of the respiratory system; the gastro-intestinal tract with its secretory organs; the processes of digestion, absorption, excretion, heat production; voice and the production of speech. Lectures and recitations, two hours a week; laboratory, four hours a week. Given in 1934-35; offered for 1935-36.

Prerequisite: *A. & P.* 108*a.* 4 *credits; 2nd semester* (Allen, Sherwood)

109—APPLICATION OF PHYSICAL PRINCIPLES TO THE HUMAN BODY. This course is especially designed for students interested in Anatomy and Physiology or the natural sciences. Students of the physical sciences as well as others will, likewise, find the course to be of practical and cultural value. The course is opened by thoroughly acquainting the student with the various physical phenomena that are to be considered. This will be followed by applying the same to the physiological processes of the body, which will include stress and strain with respect to the bones of the skeleton, types of levers involved in joint action, permeability, calorimetry, mechanics of circulation and temperature regulation, mechanics of vision, mechanics of hearing, mechanics of speech or voice. The early part of the course will be given by the Department of Physics while the balance or greater part will be presented by the Department of Anatomy and Physiology. Lecture and recitation, two hours a week; laboratory, two hours a week. Not offered for 1935-36.

Prerequisites: *A. & P.* 1*a and* 1*b or the equivalent; Physics* 1*a and* 1*b; Chemistry* 1*a and* 1*b.* 3 *credits; 1st semester* (Allen, Assistant and members of the staff of the Department of Physics)

116a—SEMINAR IN ANATOMY AND PHYSIOLOGY. All students who are majoring in the Department are required to take this course. At each meeting of the seminar, an assigned scientific article of physiological or anatomical subject matter will be reviewed thoroughly by a member of the seminar and then discussed by the seminar in general. In addition to the foregoing, each member of the seminar will be required to follow closely the current publications bearing upon the subjects of the class and present

brief reports of such articles which are of interest. One two-hour discussion period a week. Open only to Seniors and Graduates. Given in 1934-35; offered for 1935-36.

Prerequisites: *A. & P. 1a and 1b or the equivalent.* — 1 *credit; 1st semester* (Allen, Sherwood)

116b—SEMINAR IN ANATOMY AND PHYSIOLOGY. Continuation of 116a. One two-hour discussion period a week. Open only to Seniors and Graduates. Given in 1934-35; offered for 1935-36.

Prerequisites: *A. & P. 1a and 1b or the equivalent.* — 1 *credit; 2nd semester* (Allen, Sherwood)

Courses open only to Graduate Students

201a—RESEARCH IN PHYSIOLOGY. The pursuit of an assigned problem in which the student will have the opportunity to demonstrate his or her originality. Conferences and laboratory ten hours a week. Given in 1934-35; offered for 1935-36.

Prerequisites: *A. & P. 1a and 1b or the equivalent; Chemistry 127a and 127b or the equivalent; Physical Chemistry desirable; Physics, one year.* — 5 *credits; 1st semester* (Allen, Sherwood)

201b—RESEARCH IN PHYSIOLOGY. Continuation of 201a. Conferences and laboratory, ten hours a week. Given in 1934-35; offered in 1935-36.

Prerequisites: *A. & P. 1a and 1b or the equivalent; Chemistry 127a and 127b or the equivalent; Physical Chemistry desirable; Physics, one year.* — 5 *credits; 2nd semester* (Allen, Sherwood)

SUGGESTED COURSE FOR MAJOR IN ANATOMY AND PHYSIOLOGY

JUNIOR YEAR†

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Social Science	History, Pol. Science, Sociology, or Economic Hist.	3		3.0
Psychology 2a	General Psychology	2	2	3.0
Chemistry 127a	Organic Chemistry	3	4	5.0
Zoology 101a	Histology	1	4	3.0
Anat. & Phys. 105	Architecture of Human Skeleton	1	6	4.0

Second Semester

Social Science	(Continue in the Department elected in first semester)	3		3.0
Psychology 2b	General Psychology	2	2	3.0
Chemistry 127b	Organic Chemistry	3	4	5.0
Zoology 106	Embryology	2	4	4.0
Anat. & Phys. 106	Introduction to Endocrinology	3		3.0

† For the full schedule of the Junior Year, the student must obtain permission to carry the extra work.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Anat. & Phys. 116a	Seminar (Tutorial Course)		2	1.0
Anat. & Phys. 108a or Anat. & Phys. 109	Advanced Physiology or Application of Physical Principles to the Body	2	4	4.0
		2	2	3.0
Chemistry 101	Physical Chemistry	3	4	5.0
English 3a	History of English Lit.	3		3.0
Elective	Modern Language, social subject, or Botany	3		3.0

Second Semester

Anat. & Phys. 116b	Seminar (Tutorial Course)		2	1.0
Anat. & Phys. 108b or Anat. & Phys. 107	Advanced Physiology or	2	4	4.0
	Advanced Anatomy	2	4	4.0
Bacteriology 52	Principles of Bacteriology	2	4	4.0
English 3b	History of English Lit.	3		3.0
Elective	(Continue subject elected in first semester)	3		3.0
Hygiene 1	Personal and Community Health			1.0

ANCIENT LANGUAGES AND LITERATURE

Professor Jones and Assistant

REQUIREMENTS FOR A MAJOR. Prerequisites: First two years of college Latin. Required: A. L. 16a, b; a minimum of 15 credits of Ancient Languages. Major students are required to enroll in tutorial courses during the senior year and to pass a final comprehensive examination in the department.

REQUIREMENTS IN FIELD OF CONCENTRATION. Forty credits in the field of Literature, Philosophy and the Arts, including the major work, in courses not open to freshmen.

LATIN

*1—BEGINNING LATIN.
3 *credits; 1st semester* ( )

*2—CAESAR AND SELECTIONS. The equivalent of four books of Caesar.
Prerequisite: *Latin* 1. 3 *credits; 2nd semester* ( )

*3—CICERO AND SELECTIONS. The equivalent of five orations of Cicero.
Prerequisite: *Latin* 2. 3 *credits; 1st semester* ( )

*4—VIRGIL. (Books I, II, IV, VI of the Aeneid.)
Prerequisite: *Latin* 2 *or* 3. 3 *credits; 2nd semester* ( )

*5—LIVY. (Book I and Selections.)
Prerequisite: *Latin* 3 *or* 4. 3 *credits; 1st semester* (Jones)

*6—HORACE. (Odes and Selected Satires.)
Prerequisite: *Latin* 4 *or* 5. 3 *credits; 2nd semester* (Jones)

7—TACTITUS (Germania and Agricola); OVID (Selections).
Prerequisite: *Latin* 5 *or* 6. 3 *credits; 1st semester* (Jones)

8—PLINY'S LETTERS (Selections); TERENCE (two plays).
Prerequisite: *Latin* 5 *or* 6. 3 *credits; 2nd semester* (Jones)

Courses open only to Upper Division and Graduate Students

16a—TUTORIAL WORK IN ANCIENT LANGUAGES.
1 *credit; 1st semester* (Jones)

16b—TUTORIAL WORK IN ANCIENT LANGUAGES.
1 *credit; 2nd semester* (Jones)

109a—LATIN LITERATURE. (Selections from various authors.)
Prerequisite: *Latin* 7 *or* 8. 3 *credits; 1st semester* (Jones)

109b—LATIN LITERATURE. (Continuation of 109a.)
Prerequisite: *Latin* 7 *or* 8. 3 *credits; 2nd semester* (Jones)

* Courses open to Freshmen.

110a—LATIN LITERATURE. (Continuation of 109b.)
Prerequisite: *Latin* 7 *or* 8. 3 *credits; 1st semester* (Jones)

110b—LATIN LITERATURE. (Continuation of 110a.)
Prerequisite: *Latin* 7 *or* 8. 3 *credits; 2nd semester* (Jones)

Note: The authors read in the preceding four courses are not specified because the classes are composed of students from colleges with different reading requirements.

114a—ADVANCED LATIN COMPOSITION. Easy selections of connected discourse.
Prerequisite: *Latin* 5. 1 *credit; 1st semester* (Jones)

114b—ADVANCED LATIN COMPOSITION. (Continuation of 114a.)
Prerequisite: *Latin* 5. 1 *credit; 2nd semester* (Jones)

115a—LATIN COMPOSITION. (Continuation of 114b.)
Prerequisite: *Latin* 5. 1 *credit; 1st semester* (Jones)

115b—LATIN COMPOSITION. (Continuation of 115a.)
Prerequisite: *Latin* 5. 1 *credit; 2nd semester* (Jones)

120—SURVEY OF GREEK CIVILIZATION. History, Public and Private Life, Archaeology.
Prerequisite: *Junior standing.* 3 *credits; 1st semester* (Jones)
Given 1934-35; not offered 1935-36.

121—SURVEY OF ROMAN CIVILIZATION. (Continuation of 120.)
Prerequisite: *Junior standing.* 3 *credits; 2nd semester* (Jones)
Not given 1934-35; offered 1935-36.

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 only in summer school.
Prerequisite: *Junior standing.* 2 *credits; 1st term s. s.* (Jones)

150b—TEACHERS' COURSE IN LATIN; BASED ON SECOND YEAR 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 only in summer school.
Prerequisite: *Latin* 2 *or* 150*a*. 2 *credits; 2nd term s. s.* (Jones)

"Two-hundred" courses open to Graduate Students only

201a—LATIN PASTORAL POETRY.
Prerequisite: *Latin* 109*a or equivalent.* 3 *credits; 1st semester* (Jones)
Not given 1934-35; offered 1935-36.

201b—LATIN ELEGIAC POETRY.
Prerequisite: *Latin* 109*a or equivalent.* 3 *credits; 2nd semester* (Jones)
Not given 1934-35; offered 1935-36.

GREEK

51—BEGINNING GREEK. Beginners.
Prerequisite: *Freshman standing.* 3 *credits; 1st semester* (Jones)
Given each year.

Courses open only to Upper Division and Graduate Students

122a—GREEK LITERATURE IN ENGLISH TRANSLATION; EPIC AND LYRIC POETRY.
Prerequisite: *Junior standing.* 3 *credits; 1st semester* (Jones)
Given 1934-35; not offered 1935-36.

122b—GREEK LITERATURE IN ENGLISH TRANSLATION; DRAMA, ORATORY, PHILOSOPHY.
Prerequisite: *Junior standing.* 3 *credits; 2nd semester* (Jones)
Not given 1934-35; offered 1935-36.

149—EASY SELECTED READINGS FROM GREEK AUTHORS.
Prerequisite: *Greek* 51. 3 *credits; 2nd semester* (Jones)
Given each year.

152—ANABASIS.
Prerequisite: *Greek* 51. 3 *credits; 1st semester* (Jones)
Given 1934-35; offered 1935-36.

153—HOMER. Selections.
Prerequisite: *Greek* 149. 3 *credits; 2nd semester* (Jones)
Given 1934-35; offered 1935-36.

154—PLATO. Selections.
Prerequisite: *Greek* 149. 3 *credits; 1st semester* (Jones)
Not given 1934-35; offered 1935-36.

155—HERODOTUS. Selections.
Prerequisite: *Greek* 149. 3 *credits; 2nd semester* (Jones)
Not given 1934-35; offered 1935-36.

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. 2 *credits; 1st semester* (Funkhouser)

102—KENTUCKY ARCHAEOLOGY. Lectures three hours a week. 2 *credits; 2nd semester* (Webb)

105—ETHNOLOGY. Lectures three hours a week. 2 *credits; 2nd semester* (Funkhouser)

ART

Professor Rannells, Assistant Professor Fisk, Miss Callihan, Miss Lowry, Mr. Barron

REQUIREMENTS FOR A MAJOR. Prerequisites: 61a, 61b or 63a and 62a (10 credit hours in lower division).

REQUIRED: 9 to 12 credits in studio courses—63a, 63b, 64a, 64b, 55a, 55b, 159a, 159b; 9 to 12 credits in history courses—35, 36, 137, 138 (a minimum of 18 credits in upper division).

REQUIREMENTS IN FIELD OF CONCENTRATION. Forty credits in the

field of Literature, Philosophy and the Arts, including the major work, in courses not open to freshmen. Advanced courses in European history counted in the field of concentration.

DRAWING AND PAINTING

*61a—DRAWING. The study of line and form in pencil and charcoal mediums. Six studio hours and weekly problems.
3 *credits; both semesters* (Rannells)

*61b—DRAWING. Continuation of 61a.
3 *credits; 2nd semester* (Rannells)

63a—INTERMEDIATE DRAWING. Problems in analysis and construction of form. Value drawing in monochrome. Nine studio hours a week.
Prerequisite: 61*b*. 3 *credits; 1st semester* (Rannells, Fisk)

63b—INTERMEDIATE DRAWING. Continuation of 63a.
3 *credits; 2nd semester* (Rannells, Fisk)

65a—PAINTING. Still life and outdoor painting in oil and water color mediums. Composition problems and fifteen studio hours a week.
Prerequisites: 63*b and* 62*a*. 5 *credits; 1st semester* (Fisk)

65b—PAINTING. (Continuation of 65a.)
5 *credits; 2nd semester* (Fisk)

55a—PAINTING. A short course in painting as in 65a. Nine studio hours a week.
Prerequisites: 63*b and* 62*a*. 3 *credits; 1st semester* (Fisk)

55b—PAINTING. Continuation of 55a.
3 *credits; 2nd semester* (Fisk)

(Note: 55*a*, 55*b are equivalent to* 65*a*.)

"One-Hundred" courses open only to Upper Division and Graduate Students

112a—ADVANCED COMPOSITION. A study of pictorial organization for advanced students. Six studio hours a week.
Prerequisites: 62*a*, 63*b and approval of department head*. 2 *credits; 1st semester* (Rannells, Fisk)

112b—ADVANCED COMPOSITION. Continuation of 112a.
2 *credits; 2nd semester* (Rannells, Fisk)

115a to d—INDEPENDENT WORK. Open only to advanced students upon approval of department head. Specialized problems in Painting or Design; individual research in art history. Each semester's work subject to review by the staff.
3 *credits; both semesters* (Rannells)

116a—ADVANCED ETCHING. Open to advanced students upon approval of department head. Eight studio hours and weekly problems.
Prerequisites: 62*a and* 63*b*. 4 *credits; 1st semester* (Fisk)

116b—ADVANCED ETCHING. Continuation of 116a.
4 *credits; 2nd semester* (Fisk)

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* Courses open to Freshmen.

159a—INTERMEDIATE PAINTING. Still life and outdoor painting as in 65b. Nine studio hours a week.
Prerequisites: 55*b* or 65*a* and 62*a*. 3 *credits; 1st semester* (Fisk)

159b—INTERMEDIATE PAINTING. Continuation of 159a.
3 *credits; 2nd semester* (Fisk)
(Note: 159*a*, 159*b*, *are equivalent to* 65*b*.)

DESIGN

62a—DESIGN. Fundamentals in design and color. Lectures, note-books, studio work.
Prerequisite: 61*a*. 2 *credits; 1st semester* (Rannells)

62b—DESIGN. Continuation of 62a.
2 *credits; 2nd semester* (Rannells)

64a—INTERMEDIATE DESIGN. Consideration of materials and processes in designing objects of use. Lecture, six studio hours and weekly problems.
Prerequisites: 61*a* and 62*b*. 3 *credits; 1st semester* (Callihan)

64b—INTERMEDIATE DESIGN. Continuation of 64a.
3 *credits; 2nd semester* (Callihan)

*2a—ART STRUCTURE. For students in Home Economics. Lectures, four studio hours and weekly problems in design.
2 *credits; both semesters* (Callihan)

*2b—ART STRUCTURE. Continuation of 2a.
2 *credits; both semesters* (Callihan)

HISTORY AND APPRECIATION OF ART

*17a—ART APPRECIATION. Survey of the plastic arts.
1 *credit; 1st semester* (Rannells, Lowry)

*17b—ART APPPECIATION. Survey of painting.
1 *credit; 2nd semester* (Rannells, Lowry)

21—PERIOD FURNITURE. A history of furniture. One lecture and weekly problems.
2 *credits; 2nd semester* (Callihan)

22—AMERICAN ARTS AND CRAFTS. One lecture, note-book and weekly problems. 2 *credits; 2nd semester* (Callihan)

23a—DECORATIVE ARTS OF THE 18TH CENTURY IN ENGLAND. One lecture, note-book and weekly problems.
2 *credits; 1st semester* (Callihan)

23b—DECORATIVE ARTS OF THE 18TH CENTURY IN FRANCE. One lecture, note-book and weekly problems.
2 *credits; 2nd semester* (Callihan)

35—HISTORY OF ANCIENT ART. Not open to freshmen. Lectures, conferences and reports. 3 *credits; 1st semester* (Lowry)

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* Courses open to Freshmen.

36—HISTORY OF MEDIEVAL ART. Not open to freshmen. Lectures, conferences and reports. 3 *credits; 2nd semester* (Lowry)

41—ARCHITECTURE OF THE UNITED STATES. One lecture and weekly problems. 1 *credit; 1st semester* (Barron)

"One-Hundred" courses open only to Upper Division and Graduate Students

137—HISTORY OF RENAISSANCE ART IN ITALY. Lectures, conferences and reports. 3 *credits; 1st semester* (Lowry, Barron)

138—HISTORY OF RENAISSANCE ART IN THE NORTH. Lectures, conferences and reports. 3 *credits; 2nd semester* (Lowry)

139a—HISTORY OF MODERN ART. Lectures, conferences and reports. 3 *credits; 1st semester* (Lowry)

139b—HISTORY OF MODERN ART. Lectures, conferences and reports. 3 *credits; 2nd semester* (Lowry, Barron)

140—SURVEY OF ARTS. For juniors and seniors who have not scheduled history or appreciation of art courses. 3 *credits; 2nd semester* (Rannells)

142a—DIRECTED TRAVEL AND STUDY IN EUROPE. A survey of European art. Lectures, readings, notebooks—day-by-day preparation for the study of original works of art on the tour. This work begins on ship board. 3 *credits; summer* (Rannells)

142b—DIRECTED TRAVEL AND STUDY IN EUROPE. Study of actual buildings, monuments, paintings and related arts in European art centers. Concurrent with Art 142a. Tour, lectures, note-books, term report. 3 *credits; summer* (Rannells)

145a—HISTORY OF ARCHITECTURE. Architectural styles and periods including the several factors influencing their development. Lectures and reports. One hour a week. 1 *credit; 1st semester* (Barron)

145b—HISTORY OF ARCHITECTURE. Continuation of 145a. One hour per week. 1 *credit; 2nd semester* (Barron)

146a—HISTORY OF ARCHITECTURE. Analytical study of architecturai styles; comparisons of outstanding examples for each period and style. Recitations and weekly problems. Concurrent with lecture course Art 145a. Two hours per week. 2 *credits; 1st semester* (Barron)

146b—HISTORY OF ARCHITECTURE. Continuation of 146a. Concurrent with lecture course Art 145b. Two hours per week. 2 *credits; 2nd semester* (Barron)

PUBLIC SCHOOL ART

10—PUBLIC SCHOOL ART. A study of art principles in preparation for teaching art in the elementary grades. Lectures, four studio hours and weekly problems. 2 *credits; both semesters* (Haines)

Note: Other courses, such as Lettering, Water Color Painting, Illustration, Interior Decoration, etc., are given from time to time.

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* Courses open to Freshmen.

BACTERIOLOGY

Professor Scherago, Associate Professor Weaver, Assistant Professor Maxwell, Mr. Snyder, Mr. Stokes

The department of Bacteriology affords opportunity for students to gain the A. B. or B. S. degree with bacteriology as a major, and also provides a course in Medical Technology. The course in Medical Technology is a prescribed course thruout and leads to the degree of Bachelor of Science in Medical Technology. This course is designed to prepare men and women for positions in hospital laboratories, physicians' and surgeons' clinics, and federal, state and municipal laboratories and to fit the especially adapted student for either commercial or research laboratory work in bacteriology. It also meets all the requirements of the United States Civil Service Commission for the rank of Junior Bacteriologist (30 credits in Bacteriology).

The University of Kentucky is registered as an approved school for the training of laboratory technicians by the Board of Registry of the American Society of Clinical Pathologists.

Graduates of this course who may desire to enter medical school will have all the requirements of the American Medical Association and the Association of American Medical Colleges for entrance to all Class A medical schools provided they take two years of foreign language.

Course 52 or 102 may be taken to fulfill the requirement of students in the College of Agriculture and those taking the pre-medical course. Courses 2a and 2b are recommended for students desiring to major in bacteriology and for those taking bacteriology to fulfill the biological group requirement.

REQUIREMENTS FOR A MAJOR. Prerequisites: Chemistry 1a and 1b; Bacteriology 2b, 52 or 102. Required: Two credits in Seminar, plus an additional thirteen credit hours of advanced work in bacteriology, including Bacteriology 125.

REQUIREMENTS IN FIELD OF CONCENTRATION. Forty credits in the Biological Sciences Field, including the major work, in courses not open to freshmen.

*2a--ELEMENTARY MICROBIOLOGY. A study of the fundamental nature of bacteria and other microorganisms, special attention being given to morphology. This course is recommended for Bacteriology majors and for those taking Bacteriology to fulfill a biological requirement, and should be followed by 2b. No prerequisites. Lectures and recitations two hours; laboratory four hours a week.

4 *credits; both semesters* (Weaver)

*2b—ELEMENTARY MICROBIOLOGY. Continuation of course 2a. A cultural study of bacteria. Microbial physiology. A discussion of the relationship of microorganisms to soil fertility, foods, industrial fermentations, disease, etc. Lectures and recitations two hours; laboratory four hours a week.

Prerequisite: *Bacteriology 2a.* 4 *credits; both semesters* (Weaver)

*8—BACTERIA IN RELATION TO MAN. An elementary lecture course dealing in a general way with the relation of microorganisms to man, and his environment. This course will not substitute for the required courses, 2a and 2b, 52 or 102 and does not fulfill the requirements for advanced work in Bacteriology. 2 *credits; summer school* (Weaver)

52—PRINCIPLES OF BACTERIOLOGY. An alternative course for students who do not have the prerequisites for 102. Lectures and recitations two hours; laboratory four hours a week.

Prerequisite: *Must be preceded or accompanied by Chemistry 1b.* 4 *credits; both semesters* (Scherago and Stokes)

Courses open only to Upper Division and Graduate Students

102—GENERAL BACTERIOLOGY. Morphology, classification, physiology, observation and cultivation of bacteria and related microorganisms; their relation to food preservation, soil fertility and disease. Microorganisms in milk, water, air, soil, etc. Lectures and recitations two hours; laboratory four hours a week.

Prerequisite: *Chemistry 1b.* 4 *credits; 2nd semester* (Scherago and Stokes)

103—PATHOGENIC BACTERIOLOGY. A study of human and animal pathogens; especially their morphological cultural and pathogenic properties. Lectures and recitations two hours; laboratory four hours a week.

Prerequisites: *Bacteriology 52 or 102; or 2b and Chemistry 1b.* 4 *credits; 1st semester* (Scherago)

104—APPLIED BACTERIOLOGY. A course in advanced technique. Laboratory four hours a week.

Prerequisites: *Bacteriology 102 or 52; or 2b and Chemistry 1b.* 2 *credits; 2nd semester* (Weaver)

{ 56—BACTERIOLOGY OF FOODS (for Sophomores.) } { 106—BACTERIOLOGY OF FOODS. } Microbiology of milk, butter, cheese, ice cream and other milk products; eggs, tomato products, meat and meat products; food preservation; bacterial food poisoning. Relation of microorganisms to food production and handling. Standard methods of bacterial analysis as used in official food and public health laboratories. Lectures and recitation two hours; laboratory four hours a week.

Prerequisites: *Bacteriology 102 or 52; or 2b and Chemistry 1b.* 4 *credits; 1st semester* (Weaver)

{ 57—BACTERIOLOGY OF WATER AND SEWAGE (for Sophomores). } { 107—BACTERIOLOGY OF WATER AND SEWAGE. } Microflora of water; importance of colon-typhoid group in water; standard methods of water analysis and interpretation of results, water purification;

* Courses open to Freshmen.

bacteriology of sewage disposal; swimming pools, bacterial examination, purification, control, etc. Water purification plants, sewage disposal plants and swimming pools will be visited and studied. Lectures and recitations two hours; laboratory four hours a week.
Prerequisites: *Bacteriology* 102 *or* 52*; or* 2*b* and *Chemistry* 1*b*. 4 *credits; 2nd semester* (Weaver)

110a—LABORATORY DIAGNOSIS. Laboratory methods employed in diagnostic and public health laboratories. Designed for students specializing in Public Health Bacteriology. Examination of sputum, urine and blood. Laboratory six hours a week.
Prerequisite: *Preceded or accompanied by Bacteriology* 103. 3 *credits; 1st semester* (Scherago)

110b—LABORATORY DIAGNOSIS. Continuation of 110a. Laboratory diagnosis of intestinal parasitism, examination of stomach and intestinal contents; laboratory methods used in diagnosis of gonorrhea, typhoid fever, diphtheria, syphilis, etc. Laboratory six hours a week.
Prerequisite: *Bacteriology* 110*a*. 3 *credits; 2nd semester* (Scherago)

111—GENERAL PATHOLOGY. A course in general pathology, consisting of lectures and recitations and in the laboratory the demonstration of pathological histology and of fresh and museum specimens showing the effect of disease on the organs and tissues of the human body. Degenerations, infiltrations, regenerations, inflammation, disturbances of the circulation, infectious granulomata, neoplasms, etc., will be studied.
Prerequisites: *Physiology* 1*a-b, Zoology* 7*b* and 101*b, Bacteriology* 103 *and consent of Head of Dept.* 4 *credits* (Maxwell)

115a to d—INDEPENDENT WORK. Students will be assigned special problems in laboratory work and reference reading. Laboratory six hours a week.
Prerequisite: *Any course above* 102. 3 *credits* (Scherago, Weaver and Maxwell)

120a—HOSPITAL LABORATORY PRACTICE. Students will be required to carry out, under supervision, the laboratory work in one of the hospitals in Lexington. Laboratory twelve hours a week.
Prerequisites: *Bacteriology* 110*a and b, consent of Head of Dept.* 4 *credits* (Maxwell)

120b—HOSPITAL LABORATORY PRACTICE. Continuation of 120a. Eighteen hours laboratory.
Prerequisites: *Bacteriology* 110*a and b, consent of Head of Dept.* 6 *credits* (Maxwell)

125—IMMUNOLOGY AND SEROLOGY. The theories and mechanism of infection and immunity. The production of antibodies; study of antigens; their practical applications. Lectures and recitations two hours; laboratory six hours a week.
Prerequisite: *Bacteriology* 103. 5 *credits; 2nd semester* (Scherago)

150a or c—SEMINAR. One two-hour discussion a week on current literature and assigned topics.
Prerequisite: *Any course in Bacteriology.* 1 *credit; 1st semester* (Staff)

150b or d—SEMINAR. Same as 150a and c.
credit; 2nd semester (Staff)

Courses open only to Graduate Students

201a—RESEARCH IN BACTERIOLOGY. Laboratory ten hours a week. 5 *credits; 1st semester* (Scherago, Weaver and Maxwell)

201b—RESEARCH IN BACTERIOLOGY. Laboratory ten hours a week. 5 *credits; 2nd semester* (Scherago, Weaver and Maxwell)

203a—PUBLIC HEALTH BACTERIOLOGY. This course considers the public health aspects of bacteriology including the etiology, epidemiology, immunology, and laboratory diagnosis of infectious diseases; the bacteriology of air, water and sewage; food poisoning; the production, standardization and practical applications of biological products used in the diagnosis, treatment and prevention of infectious diseases; the standardization of disinfectants.

Prerequisites: *Open only to physicians and health officers or those with equivalent training.* 3 *credits* (Scherago)

Offered in the summer session only.

203b—PUBLIC HEALTH BACTERIOLOGY. Continuation of Course 203a.

Prerequisite: 203*a*. 3 *credits* (Scherago)

Offered in the summer session only.

OUTLINE OF COURSE LEADING TO THE DEGREE B. S. IN MEDICAL TECHNOLOGY

FRESHMAN YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Matric. Lec.	Required of all Freshmen	1		.3
English 1a	English Composition	3		3.
Chemistry 1a	General Inorganic Chemistry	3	4	5.
Bacteriology 2a	Elementary Microbiology	2	4	4.
Zoology 1a	General Zoology	2	4	4.
Military Science 1a	First Year Basic Course	1	2	1.3
Physical Ed. 1a	Gymnasium Practice		2	.7
				18.3

Second Semester

Hygiene 1	General and Personal Hygiene	2		1.
English 1b	English Composition	3		3.
Chemistry 1b	General Inorganic Chemistry	3	4	5.
Bacteriology 2b	Elementary Microbiology	2	4	4.
Zoology 1b	General Zoology	2	4	4.
Military Sc. 1b	First Year Basic Course	1	2	1.3
Physical Ed. 1b	Gymnasium Practice		2	.7
				19.0

SOPHOMORE YEAR*

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Chemistry 4	Qualitative Analysis	1	6	4.
Physics 1a	General Physics	4	2	5.
Bacteriology 56	Bacteriology of Foods	2	4	4.
Anat. and Phys. 1a	General Physiology	3		3.
Military Sc. 2a	Second Year Basic Course	1	2	1.5
Physical Ed. 2a	Advanced Gymnasium Practice		2	.7
				18.2

Second Semester

Zoology 7b	Comparative Anatomy	2	4	4.
Physics 1b	General Physics	4	2	5.
Bacteriology 57	Bacteriology of Water and Sewage	2	4	4.
Anat. and Phys. 1b	General Physiology	3		3.
Military Sc. 2b	Second Year Basic Course	1	2	1.5
Physical Ed. 2b	Advanced Gymnasium Practice		2	.7
				18.2

* Women students must substitute one year of foreign language for the two years of Military Science. This should be taken in the sophomore year.

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Chemistry 8	Quantitative Analysis	1	8	5.
Zoology 101a	Histology	1	4	3.
Bacteriology 103	Pathogenic Bacteriology	2	4	4.
Foreign Lang.	Elective	3		3.
Bacteriology 110a	Laboratory Diagnosis		6	3.
				18.

Second Semester

Zoology 101b	Histology	1	4	3.
Bacteriology 125	Immunology and Serology	2	6	5.
Zoology 106	Embryology	2	4	4.
Foreign Lang.	Elective	3		3.
Bacteriology 110b	Laboratory Diagnosis		6	3.
				18.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Chemistry 127a	Organic Chemistry	3	4	5.
Bacteriology 111	General Pathology	2	4	4.
Bacteriology 150a	Seminar	2		1.
Bacteriology 120a	Hospital Laboratory Practice		12	4.
Math., Phil., Psych. or Social Science	Elective			3.
				17.

Second Semester

Chemistry 127b	Organic Chemistry	3	4	5.
Bacteriology 150b	Seminar	2		1.
Physics 120	X-Ray Technique		4	2.
Bacteriology 120b	Hospital Laboratory Practice		18	6.
Math., Phil., Psych. or Social Science	Elective			3.
				17.

Students will be given an opportunity in the summer to obtain additional practical experience in one of the hospitals in and around Lexington.

Totals credits 143.7.

BOTANY

Professor McFarland, Assistant Professor McInteer

REQUIREMENTS FOR A MAJOR. Prerequisites: Botany 7a, 7b; 12. Required: Botany 6, 15, 19, 125a, 125b; Zoology 1a, 1b; a minimum of 15 credits of advanced work in Botany.

REQUIREMENTS IN FIELD OF CONCENTRATION. Forty credits in the field of Biological Sciences, including the major work, in courses not open to freshmen.

*7a—GENERAL BOTANY. An introductory course in the study of the phenomena of plants—a study of the vegetative structures and the behavior of plants. Three recitations per week.

3 *credits; 1st semester* (McFarland, McInteer)

*7b—GENERAL BOTANY. A continuation of Botany 7a in which a study is made of reproduction in the higher plants, heredity, and a comparison of the type forms of the various groups of plants with reference to structure and methods of reproduction. Three recitations per week.

3 *credits; 2nd semester* (McFarland, McInteer)

* Courses open to Freshmen.

6—PLANT HISTOLOGY. A laboratory course dealing with the principles of killing, fixing, imbedding, sectioning, staining, mounting and studying of various kinds of plant tissues. Laboratory six hours.

Prerequisites: *Botany 7a, 7b;* 12. 4 *credits; 1st semester* (McFarland)

12—ADVANCED MORPHOLOGY. This course is designed for those students who wish to make a more detailed study of type forms than was permitted in General Botany 7a, 7b.

Prerequisites: *Botany 7a, 7b.* 4 *credits; 1st semester* (McFarland, McInteer)

15—LOCAL FLORA (Systematic Botany). A laboratory course dealing with the identification of unknown flowers and ferns. The use of manuals and method of making are taken up for study. The various systems of classification are taken up in detailed study, as well as the laws of nomenclature.

Prerequisites: *Botany 7a, 7b;* 12. 3 *credits; 2nd semester* (McFarland)

19—DENDROLOGY. This is a field course in which the student is taught the principles of identification of trees, as well as how to recognize them by their leaf, bark and bud characters. Three lectures a week.

2 *credits; either semester* (McFarland)

Courses open only to Upper Division and Graduate Students

103—PLANT PHYSIOLOGY. A course dealing with the fundamental functions of the plant cell life, nature of protoplasmic membranes, osmotic phenomena, metabolism, growth and responses of various kinds. Lecture one hour; recitation one hour; laboratory four hours.

Prerequisites: *Botany 7a, 7b.* 4 *credits; 2nd semester* (McInteer)

106a—SPECIAL PROBLEM. A course designed to give students who have acquired at least 18 advanced credits in botany an opportunity to take up independently some problem that may be assigned by the instructor in charge. The problem will depend upon the qualifications and fitness of the student.

Prerequisite: *Eighteen hours Advanced Botany.* 3 *credits; 1st semester* (McFarland, McInteer)

106b—SPECIAL PROBLEM. A continuation of course 106a.

3 *credits; 2nd semester* (McFarland, McInteer)

107—MORPHOLOGY OF THE ALGAE. A laboratory course dealing with representative algae with regard to structure and reproduction and the general classification of the algae.

Prerequistes: *Botany 7a, 7b.* 3 *credits; 2nd semester* (McInteer)

111—CLASSIFICATION OF PARASITIC FUNGI. A detailed study is made of many forms of fungi that are parasites on the higher plants. Attention is given to their structure and their position in the various schemes of classification.

Prerequisites: *Botany 125a-b.* 1 *credit; 1st semester* (McFarland)

114—ECOLOGY. Prerequisites, Bot. 7a, 7b. Bot. 15 desirable before electing this course. Frequent half-day and two all-day field trips are required of students taking this course. Lecture two hours, Laboratory two hours a week.

3 *credits; 2nd semester* (McInteer)

125a—MORPHOLOGY OF THE FUNGI. A comprehensive study is made of many type forms of the Myxomycetes, Phycomycetes and a few of the Ascomycetes. Their structure, method of reproduction and classification are studied in detail. Laboratory four hours: lecture one hour; recitation one hour.
Prerequisites: *Botany 7a, 7b;* 12. 4 *credits; 1st semester* (McFarland)

125b—MORPHOLOGY OF THE FUNGI. A continuation of course 125a. The rest of the fungi groups are taken up and a study is made as in the previous semester. The Ascomycetes and Basidiomycetes are studies as well as the Fungi imperfecti. Laboratory four hours; lecture one hour; recitation one hour.
Prerequisite: *Botany* 125*a*. 4 *credits; 2nd semester* (McFarland)

126a—MYCOLOGY. In this course the student spends the entire time in identifying unknown species of fungi. Considerable time is spent in the field in collecting and learning the habits of the various fungi. Laboratory six hours.
Prerequisites: *Botany* 125*a-b*. 3 *credits; 1st semester* (McFarland)

126b—MYCOLOGY. A continuation of course 126a.
3 *credits; 2nd semester* (McFarland)

150a—ADVANCED SYSTEMATIC BOTANY. In this course the student is expected to identify many more species than given in course 15. It is expected that each student study critically some group of plants. Laboratory six hours.
Prerequisite: *Botany* 15. 3 *credits; 1st semester* (McFarland, McInteer)

150b—ADVANCED SYSTEMATIC BOTANY. A continuation of course 150a. 3 *credits; 2nd semester* (McFarland, McInteer)

Courses open only to Graduate Students†

206a—RESEARCH IN MORPHOLOGY. Laboratory ten hours a week.
5 *credits; 1st semester* (McFarland, McInteer)

206b—RESEARCH IN MORPHOLOGY. Laboratory ten hours a week.
5 *credits; 2nd semester* (McFarland, McInteer)

207a—RESEARCH IN MYCOLOGY. Laboratory ten hours a week.
5 *credits; 1st semester* (McFarland)

207b—RESEARCH IN MYCOLOGY. Laboratory ten hours a week.
5 *credits; 2nd semester* (McFarland)

210a—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 the due regard to the previous preparation in physics and chemistry. Laboratory ten hours a week. 5 *credits; 1st semester* (McInteer)

210b—RESEARCH IN PLANT PHYSIOLOGY. A continuation of course 210a. Laboratory ten hours a week.
5 *credits; 2nd semester* (McInteer)

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† Given only as occasion demands.

213a—RESEARCH IN SYSTEMATIC BOTANY. Students who desire to work in systematic botany will be assigned to some group or groups of plant for critical study. This study may include plants from the lowest type to the flowering ones. Laboratory ten hours a week.
Prerequisites: *Botany* 15, 150*a*, 150*b*. 5 *credits; 1st semester* (McFarland, McInteer)

213b—RESEARCH IN SYSTEMATIC BOTANY. A continuation of course 213a. Laboratory ten hours a week.
5 *credits; 2nd semester* (McFarland, McInteer)

CHEMISTRY

Professor Maxson, Professor Tuttle, Emeritus, Professor Barkenbus, Professor Bedford, Assistant Professor Mitchell, Assistant Professor Stewart, Mr. Keller,† Mr. Krewson, Mr. Gabbard, Mr. Baker, Mr. Amis

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, 110, 111, 102, 105, 129.

REQUIREMENTS IN FIELD OF CONCENTRATION. Forty credits in the Field of Physical Sciences, including the major work, in courses not open to freshmen.

*1a—GENERAL INORGANIC CHEMISTRY. One hour lecture; two hours recitation; four hours laboratory a week.
5 *credits; both semesters* (Mitchell, Keller, Krewson, Gabbard, Amis)

*51—GENERAL INORGANIC CHEMISTRY. One hour lecture; four hours laboratory a week.
Prerequisite: *One year of high school chemistry.* 3 *credits; 1st semester* (Mitchell)

*1b—GENERAL INORGANIC CHEMISTRY. One hour lecture, two hours recitation, four hours laboratory a week.
Prerequisite: *Chemistry 1a.* 5 *credits; both semesters* (Mitchell, Keller, Krewson, Gabbard, Amis)

*2a—GENERAL INORGANIC CHEMISTRY FOR ENGINEERS. One hour lecture, one hour recitation, four hours laboratory a week.
4 *credits; 1st semester* (Mitchell and others)

† On leave of absence 1935-1936.
* Courses open to Freshmen.

*2b—GENERAL INORGANIC CHEMISTRY FOR ENGINEERS. One hour lecture, one hour recitation, four hours laboratory a week.
Prerequisite: *Chemistry* 2*a*. 4 *credits; 2nd semester* (Mitchell and others)

*3—INORGANIC PREPARATIONS. The basic principles of general chemistry illustrated by typical inorganic syntheses. Laboratory four hours a week.
Prerequisites: *Chemistry* 1*a and continuation of* 1*b*. 2 *credits; 2nd semester* (Maxson)

4—QUALITATIVE ANALYSIS. One recitation and six laboratory hours a week.
Prerequisite: *Chemistry* 1*b*. 4 *credits; both semesters* (Maxson)

6—QUALITATIVE ANALYSIS FOR MINING AND METALLURGICAL ENGINEERS. One recitation and six laboratory hours a week.
Prerequisite: *Chemistry* 2*a*. 4 *credits; both semesters* (Maxson)

7—ORGANIC CHEMISTRY. Brief course. Three recitations and two laboratory hours a week.
Prerequisite: *Chemistry* 1*b*. 4 *credits; both semesters* (Baker)

8—QUANTITATIVE ANALYSIS. Introductory course. Recitation one hour; laboratory eight hours a week.
Prerequisite: *Chemistry* 4. 5 *credits; both semesters* (Stewart)

10—QUANTITATIVE ANALYSIS. For mining engineers. Recitation one hour; laboratory eight hours a week.
Prerequisite: *Chemistry* 4. 2.5 *credits; one-half 2nd semester* (Stewart)

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 soils, fertilizers and agricultural products. Recitation one hour; laboratory eight hours a week.
Prerequisite: *Chemistry* 1*b*. 5 *credits; both semesters*

17—GAS ANALYSIS. Laboratory two hours a week.
Prerequisite: *Chemistry* 1*b*. 1 *credit; both semesters* (Bedford)

20a—ORGANIC CHEMISTRY. Three recitations and four laboratory hours a week.
Prerequisite: *Chemistry* 1*b*. 5 *credits; 1st semester* (Barkenbus)

20b—ORGANIC CHEMISTRY. Continuation of 20a.
Prerequisite: *Chemistry* 1*b*. 5 *credits; 2nd semester* (Barkenbus)

49a—CHEMISTRY FOR NURSES. One hour lecture, one hour recitation, one hour laboratory a week. 2 *credits* ( )

49b—CHEMISTRY FOR NURSES. Continuation of 49a. One hour lecture, one hour recitation, one hour laboratory a week.
2 *credits* (Baker)

Courses open only to Upper Division and Graduate Students

101—PHYSICAL CHEMISTRY. For students in Agriculture and the biological sciences. Lectures and recitations three hours; laboratory four hours a week.
Prerequisites: *Chemistry* 7, 8; *Physics* 1*b*; *Mathematics* 17. 5 *credits; both semesters* (Bedford)

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* Courses open to Freshmen.

102—ELECTRO CHEMISTRY. Elementary electro-analysis, electro-plating and preparation of some inorganic and organic substances by electrolysis. Laboratory ten hours a week.
Prerequisites: *Chemistry* 101 *or* 131*b*, 109, 127*b*. 5 *credits; both semesters* (Bedford)

109—QUANTITATIVE ANALYSIS. Recitation one hour; laboratory eight hours a week.
Prerequisite: *Chemistry* 8 *or* 11. 5 *credits; both semesters* (Stewart)

110—PHYSICAL CHEMISTRY. Intermediate course. Recitation and lectures three hours a week.
Prerequisites: *Chemistry* 131*b* and *Calculus*. 3 *credits; both semesters* (Bedford)

111—PHYSICAL CHEMISTRY. Intermediate course. Laboratory four hours a week.
Prerequisite: *Chemistry* 110, *or may be taken at the same time*. 2 *credits; both semesters* (Bedford)

112—AGRICULTURAL ANALYSIS. Laboratory eight hours a week.
Prerequisite: *Chemistry* 8 *or* 11. 4 *credits; both semesters*

127a—ORGANIC CHEMISTRY. Three recitations and four laboratory hours a week.
Prerequisite: *Chemistry* 1*b*. 5 *credits; 1st semester* (Barkenbus, Baker)

127b—ORGANIC CHEMISTRY. Three recitations and four laboratory hours a week.
Prerequisite: *Chemistry* 127*a*. 5 *credits; 2nd semester* (Barkenbus, Baker)

114—ADVANCED QUANTITATIVE ANALYSIS. The analysis of iron, steel and related metallurgical products. Recitation one hour; laboratory eight hours a week.
Prerequisite: *Chemistry* 109. 5 *credits; both semesters* (Stewart)

131a—PHYSICAL CHEMISTRY. Recitation two hours; laboratory four hours a week.
Prerequisites: *Chemistry* 8; *Physics* 2*a*, *ought to be taken at the same time; Mathematics* 20*a*. 4 *credits; 1st semester* (Bedford)

131b—PHYSICAL CHEMISTRY. Lectures and recitations two hours; laboratory four hours a week.
Prerequisite: *Chemistry* 131*a*. 4 *credits; 2nd semester* (Bedford)

118—WATER ANALYSIS. Laboratory four hours a week.
Prerequisite: *Chemistry* 109. 2 *credits; 1st semester* (Stewart)

119a—INDUSTRIAL CHEMISTRY.
Prerequisite: *Chemistry* 131*b*. 2 *credits; both semesters* (Maxson)

119b—INDUSTRIAL CHEMISTRY.
Prerequisite: *Chemistry* 131*b*. 2 *credits; both semesters* (Maxson)

122a—JOURNAL CLUB. Training in the use of chemical literature and special reports on typical research publications.
Prerequisite: *Chemistry* 131*b*. 1 *credit; both semesters* (Maxson)

122b—JOURNAL CLUB. Continuation of 122a.
Prerequisite: *Chemistry* 131*b*. 1 *credit; both semesters* (Maxson)

129—FOOD CHEMISTRY AND ANALYSIS. Lectures and recitation one hour; laboratory eight hours a week.
Prerequisites: *Chemistry* 7 *or* 127*a*, 8. 5 *credits; 1st semester*

130a—PHYSIOLOGICAL CHEMISTRY. A study of the chemistry of living processes. Two lectures, six laboratory hours a week.
Prerequisites: *Chemistry* 8, 127*b*. 5 *credits; 1st semester* (Barkenbus)

130b—PHYSIOLOGICAL CHEMISTRY. Continuation of Chemistry 130a. Two lectures, six laboratory hours a week.
Prerequisite: *Chemistry* 130*a*. 5 *credits; 2nd semester* (Barkenbus)

104—ADVANCED SYNTHETIC INORGANIC CHEMISTRY. Laboratory ten hours a week.
Prerequisite: *Chemistry* 150, *or to be taken at the same time.* 5 *credits; both semesters* (Maxson)

103—QUALITATIVE ORGANIC ANALYSIS. A systematic study of the separation and identification of organic compounds. Laboratory ten hours a week.
Prerequisite: *Chemistry* 127*b*. 5 *credits; both semesters* (Barkenbus)

106—ADVANCED ORGANIC CHEMISTRY. Laboratory ten hours a week.
Prerequisite: *Chemistry* 127*b*. 5 *credits; both semesters* (Barkenbus, Baker)

107—SELECTED PROBLEMS IN QUANTITATIVE ANALYSIS. Laboratory ten hours a week.
Prerequisite: *Chemistry* 109. 5 *credits; both semesters* (Stewart)

108—COLLOID CHEMISTRY. A course involving the study of the physical and the chemical properties of matter in the colloidal state. Laboratory and conferences ten hours a week.
Prerequisite: *Chemistry* 101 *or* 131*a*. 5 *credits; both semesters* (Maxson)

140—INDUSTRIAL STOICHIOMETRY. Chemical calculations of manufacturing processes. Recitations three hours a week.
Prerequisite: *Chemistry* 119*a*. 3 *credits; 2nd semester* (Bedford)

150—ADVANCED INORGANIC CHEMISTRY. Primarily for students specializing in chemistry. Two recitations and four laboratory hours a week.
Prerequisite: *Chemistry* 101 *or* 131*a*. 4 *credits; both semesters* (Maxson)

Courses open only to Graduate Students

201—SYNTHETIC INORGANIC CHEMISTRY. Laboratory ten hours a week. 5 *credits; both semesters* (Maxson)

202—QUANTITATIVE ANALYSIS. Research. Laboratory ten hours a week. 5 *credits; both semesters* (Stewart)

204a—ORGANIC CHEMISTRY. Laboratory ten hours a week.
Prerequisite: *Chemistry* 106. 5 *credits; both semesters* (Barkenbus)

204b—ORGANIC CHEMISTRY. Laboratory ten hours a week.
Prerequisite: *Chemistry* 204*a*. 5 *credits; both semesters* (Barkenbus)

205a—ADVANCED PHYSICAL CHEMISTRY.
Prerequisites: *Chemistry* 131*b and Calculus*. 2 *credits; both semesters* (Bedford)

205b—ADVANCED PHYSICAL CHEMISTRY. Continuation of 205a.
Prerequisite: *Chemistry* 205*a*. 2 *credits; both semesters* (Bedford)

206a—ADVANCED PHYSICAL CHEMISTRY. Laboratory course on selected topics, in advanced physical or electro-chemistry. Six or more hours a week.
Prerequisite, or accompanied by: *Chemistry* 205*a*. 3 *credits; both semesters* (Bedford)

206b—ADVANCED PHYSICAL CHEMISTRY. Continuation of Chemistry 206a. Six or more laboratory hours a week.
Prerequisite, or accompanied by: *Chemistry* 205*b*. 3 *credits; both semesters* (Bedford)

207a—SYSTEMATIC INORGANIC CHEMISTRY. Lectures and conferences, two hours a week.
Prerequisite: *Chemistry* 131*b or its equivalent*. 2 *credits; either semester* (Maxson)

207b—SYSTEMATIC INORGANIC CHEMISTRY. Continuation of Chemistry 207a. Lectures and conferences, two hours a week.
2 *credits; either semester* (Maxson)

208b—THEORETICAL CHEMISTRY. A historical survey of atomic theories and their influence upon the development of chemistry. Two lectures and assigned reading a week. 2 *credits; either semester* (Stewart)

210a, b, c, or d—SEMINAR. Reports and discussions on recent research and current literature. 1 *credit; both semesters* (Staff)

COURSES IN INDUSTRIAL CHEMISTRY

German 2 must be completed and one year's work in French, so that a fair reading knowledge of both languages may be acquired. 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 17	College Algebra	3		3.
Mathematics 18	Plane Trigonometry	2		2.
German 1a	Elementary German	3		3.
Eng'n'g Draw. 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
				19.6

Second Semester

English 1b	English Composition	3		3.
Mathematics 19	Analytical Geometry	3		3.
German 1b	Elementary German	3		3.
Chemistry 1b	General Inorganic Chemistry	3	4	5.
Eng'n'g Draw. 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
Hygiene 1	Personal and Community Health	2		1.
				18.3

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Physics 2a	General College Physics	3	4	5.
Mathematics 20a	Differential Calculus	4		4.
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
				18.2

Second Semester

Physics 2b	General College Physics	3	4	5.
German 2b	Intermediate German	3		3.
Chemistry 8	Quantitative Analysis	1	8	5.
Mathematics 20b	Integral Calculus	4		4.
Military Science 6b	Second Year Basic Course, Infantry	1	2	1.5
Physical Ed. 2b	Gymnasium or Field Athletics		2	.7
				19.2

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 1	Principles of Economics	3		3.
French 1a	Elementary French	3		3.
Geology 109a	Mineralogy		4	2.
				22.

Second Semester

Chemistry 127b	Organic Chemistry, Cyclic Series	3	4	5.
Chemistry 17	Gas Analysis		2	1.
Commerce 15	Economic Problems	3		3.
Chemistry 131b	Physical Chemistry, Continued	2	4	4.
French 1b	Elementary French	3		3.
Physics 123	Prin. of Thermodynamics			3.
				19.

SENIOR YEAR
First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
{Elec. Engr. 105 or	Direct Currents and Machinery	3	3	4. }
{Physics	Advanced Physics			3. }
Chemistry 119a	Industrial Chemistry	2		2.
Chemistry 122a	Journal Club	1		1.
English	Elective	3 or 2		3. or 2
Chemistry 118	Water Analysis		4	2.
Chemistry 103	Qualitative Organic Analysis		10	5.
Physics	Elective	3		3.
				18, 19, 20

Second Semester

{Elec. Engr. 106 or	Alternating Currents	3	3	4. }
{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.
Chemistry 140	Industrial Stoichiometry	3		3.
				20, 21, 22

Minimum credits for a degree 154.3.

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

ECONOMICS

REQUIREMENTS FOR A MAJOR. Prerequisites: Junior standing; six credits of Economics. Required: A minimum of 15 credits of advanced work in Economics. Arts and Sciences students majoring in Economics are required to pass a final comprehensive examination.

REQUIREMENTS IN FIELD OF CONCENTRATION. Forty credits of advanced work in the Field of Social Studies, including the major work.

1—PRINCIPLES OF ECONOMICS. An examination of the fundamental principles of economics and the application of these principles to practical problems. Not open to freshmen.

3 *credits; both semesters* (Wiest and others)

*2—ECONOMIC HISTORY OF EUROPE. A survey of conditions preceding the modern period with a more intensive study of the subsequent development of agriculture, industry, and finance. Open only to freshmen and sophomores. 3 *credits; 1st semester* (Jennings and others)

*3—ECONOMIC HISTORY OF THE UNITED STATES. A brief sketch of economic life in the colonies, followed by a more detailed account of the national evolution in agriculture, manufacture, transportation, commerce and finance. Open only to freshmen and sophomores.
3 *credits; 2nd semester* (Jennings and others)

7a—PRINCIPLES OF ACCOUNTING. Instruction in the science and adaptation of the accounts of going concerns, together with sufficient practice to acquire proficiency. Recitation two hours; laboratory four hours a week.
Not open to freshmen. 4 *credits; 1st semester* (Haun and Lawrence)

7b—PRINCIPLES OF ACCOUNTING. Continuation of 7a. Recitation two hours a week; laboratory four hours a week.
Not open to freshmen. 4 *credits; 2nd semester* (Haun and Lawrence)

8—ECONOMIC GEOGRAPHY. A brief study of the earth's physical characteristics and their relation to man's activities, including the effects of climate, natural resources and means of transportation upon the development of social, political and economic phases of life.
3 *credits; 1st semester* (Carter)

9—FORMS OF BUSINESS ORGANIZATION. A study of business organization primarily from a social point of view. The course traces the origin and development of forms of business organization; treats of advantages and disadvantages of the various forms; includes a study of the trust or combination movement and its effects upon society.
3 *credits; 2nd semester* (Tolman and others)

12—ECONOMIC GEOGRAPHY OF NORTH AMERICA. A detailed study of the agricultural, mineral, lumber, fishery and other economic resources of North America. The emphasis is placed upon the resources of the United States, the various geographical sections being intensively studied.
3 *credits; 2nd semester* (Carter)

15—ECONOMIC PROBLEMS. Fundamental aspects of money and banking, industrial efficiency, marketing, transportation, public utilities, public finance, social control, et cetera.
3 *credits; 2nd semester* (Weist and others)

102—LABOR PROBLEMS. A study of the labor market in its industrial setting, including such directly related topics as immigration, unemployment, and labor organization.
Prerequisite: Course 1. 3 *credits; 1st semester* (Carter)

103—TRANSPORTATION. Railways, waterways, highways, airways, rates, service, management, regulation.
Prerequisite: Course 1. 3 *credits; 2nd semester* (Sullivan)

104—PUBLIC FINANCE. A study of public receipts; public expenditures; the principles of taxation with special reference to their application to the tax systems, federal and state.
Prerequisite: Course 1. 3 *credits; 1st semester* (Martin and Sullivan)

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* Courses open to Freshmen.

105—MONEY AND BANKING. Nature and functions of money; the importance of credit; relation of money and credit to prices; bank deposits and loans; complete study of our national banking system.
Prerequisite: *Course* 1. 3 *credits; 1st semester* (Wiest and Sullivan)

107—STATISTICAL METHOD. Training in the process of treating multiple phenomena with mathematical exactitude. The methods are illustrated with material from the fields of psychology, education, economics and sociology. Recitation one hour; laboratory four hours. Not open to freshmen and sophomores. 3 *credits; 1st semester* (Palmer)

110—BUSINESS CYCLES. The nature and characteristics of the economic factors which underlie the cyclical fluctuations in business conditions; the methods of business and investment forecasting.
Prerequisites: *Courses* 1 *and* 107. 3 *credits; 2nd semester* (Palmer)

120—ORGANIZATION OF ECONOMIC GROUPS. A survey of economic groups and their economic and social relationships; the business organization aspects of farmers' organizations, chambers of commerce, trade and industrial associations.
Prerequisite: *Course* 1. 3 *credits; 1st semester* (Sullivan)

124—STATE AND LOCAL TAXATION. Classified property taxes; separation of sources of revenue; taxation of banks, forests, public utilities, mines, and rural and urban real estate; income, inheritance, and sales taxes.
Prerequisite: *Course* 1. 3 *credits; 2nd semester* (Martin)

125—ADVANCED ECONOMIC HISTORY OF EUROPE. An advanced study of population, immigration, labor, agriculture, industry, and finance and the effects of the various lines of development upon national life.
Not open to freshmen and sophomores nor to students who have had course 2 *except when doing graduate work.* 3 *credits; 1st semester* (Jennings)

126—ECONOMICS OF PUBLIC UTILITIES. No credit for this course can be given if the student has credit for Political Science 158. Growth and development of public utilities; valuation; rate-making; financing; the holding company; regulation; current problems; accounting.
Prerequisite: *Course* 1. 3 *credits; 1st semester* (Carter)

127—INTERNATIONAL ECONOMIC POLICIES. Modern fallacies respecting foreign trade; free trade; protectionism; preferential tariffs; colonial tariff policies; dumping, commercial treaties; control of raw materials; encouragement of shipping; international investments and the movement of capital; international debts; reparations.
Prerequisite: *Course* 1. 3 *credits; 2nd semester* (Sullivan)

130—LABOR LEGISLATION. The status of labor law, mediation, conciliation, arbitration, the minimum wage, the eight-hour day, unemployment relief, safety and health legislation, and social insurance.
Prerequisite: *Course* 1. 3 *credits; 2nd semester* (Carter)

134—ADVANCED ECONOMIC HISTORY OF THE UNITED STATES. An advanced study of English colonial policy, population growth, immigration, territorial expansion, agriculture, manufactures, tariff, labor, industrial combinations, commerce, transportation facilities, money and banking, and conservation.
Not open to freshmen and sophomores nor to students who have had course 3 *except when doing graduate work.* 3 *credits; 2nd semester* (Jennings)

141—MANAGERIAL STATISTICS. An advanced practical course in the use of charts and graphs by the business manager; logarithmic, double logarithmic and other rulings, pin maps, organization charts, work schedule graphs, computation graphs and monographs, plotting the error area of trends, construction of three dimensioned surfaces, etc. Data will be drawn from the fields of accounting, advertising, personnel work, credit granting, purchasing, scheduling, and the like.

Prerequisite: *An elementary course in statistics.* 3 *credits; 1st semester* (Palmer)

142—INDEX NUMBERS. The problems of sampling, selection of formula, and weighting in the construction of index numbers, a study of the construction and use of the common index numbers of prices and production.

Prerequisite: *An elementary course in statistics.* 2 *credits; 2nd semester* (Palmer)

147—AMERICAN BUSINESS LEADERS. Biographical sketches of a selected list of men including their business achievements and their relationships to the economic and social life of their time.

1 *credit; 1st semester* (Jennings)

148—EUROPEAN BUSINESS LEADERS. Biographical sketches of a selected list of men including their business achievements and their relationships to the economic and social life of their time.

1 *credit; 2nd semester* (Jennings)

202a—SEMINAR. An extended original investigation of some specific topic with a view to giving training in methods of research and studying intensively a particular subject in the field of economics.

3 *credits; 1st semester* (Martin and others)

202b—SEMINAR. Continuation of 202a.

3 *credits; 2nd semester* (Martin and others)

203—HISTORY OF ECONOMIC THOUGHT. A survey of the history of economic thought from the ancient period to about the end of the Classical School.

Prerequisite: *Course* 1. 3 *credits; 1st semester* (Wiest)

204—ECONOMIC HISTORY OF THE UNITED STATES PRIOR TO 1860. An examination of original sources and class reports; intensive investigation of all the subjects in detail prior to 1860.

Not open to students who have had course 134 *for graduate credit.* 2 *credits; 1st semester* (Jennings)

205—ECONOMIC HISTORY OF THE UNITED STATES SINCE 1860. A continuation of course 204, but may be taken independently.

Not open to students who have taken course 134 *for graduate credit.* 2 *credits; 2nd semester* (Jennings)

206—MUNICIPAL FINANCE. The budget problems of municipalities are analyzed; the debt policies critically examined; and the auditing and reporting plans compared and evaluated. Problems of taxation are dealt with incidently. Each individual conducts one or more independent investigations. 3 *credits; 1st semester* (Martin)

207—LITERATURE OF PUBLIC FINANCE. Several of the great masterpieces of government finance are read critically. Each student makes a careful study of one system or of the development of one idea. A reading knowledge of French or German is desirable, but not necessary.

3 *credits; 1st semester* (Martin)

208—ADVANCED ECONOMIC THEORY. A critical, comparative anaysis of "orthodox" economic theory in the light of recent criticism is attempted. The course is built around a comprehensive system of economic theory. 3 *credits; 2nd semester* (Martin)

209—COMPARATIVE BANKING AND MONETARY SYSTEMS. A comparative study of banking systems and monetary policies in the principal countries of the world; emphasis is placed upon present-day organization; the commercial bank with its monetary functions is the main theme of the course, but brief surveys of investment banking systems are also attempted. 3 *credits; 2nd semester* (Wiest)

210—RESEARCH STATISTICS. For those who wish to become connected with government, state, and industrial research bureaus; particularly devoted to the study of the practical applications of probable error formulae, in estimating the most profitable size of samples. Applications will be made in the fields of frequency series, correlation problems, and time series.
Prerequisites: *An elementary course in statistics and consent of the instructor.* 3 *credits; 2nd semester* (Palmer)

211—ADVANCED MONEY AND BANKING. A general survey of the subject is attempted with the emphasis upon its historical and theoretical aspects. 3 *credits; 2nd semester* (Wiest)

215—CONTEMPORARY ECONOMIC THOUGHT. A survey of current literature of theoretical economics. Special emphasis is placed on analysis of fundamental institutions.
Prerequisite: *Course* 1. 3 *credits; 1st semester* (Martin)

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.

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.

ENGLISH LANGUAGES 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 Galloway, Mr. Fithian, Mrs. Smith, Mr. Shannon, Mr. Ward, Miss Fox, Miss Neal

REQUIREMENTS FOR A MAJOR. Prerequisites: English 1a, 1b, 3a, 3b. Required: A minimum of 18 credits of advanced work in English.

REQUIREMENTS IN FIELD OF CONCENTRATION. Forty credits in the Field of Literature, Philosophy and the Arts, including the major work in courses not open to freshmen.

ENGLISH LANGUAGE AND RHETORIC

*D—ENGLISH COMPOSITION. A course for freshmen who are deficient in English. Students will be assigned to this course upon the basis of tests given in September.

0 *credits; both semesters* (Mrs. Smith, Miss Neal)

*1a—ENGLISH COMPOSITION. A course in English Composition for freshmen. 3 *credits; both semesters* (The Staff)

*1b—ENGLISH COMPOSITION. A continuation of English 1a. 3 *credits; both semesters* (The Staff)

2a—ADVANCED COMPOSITION. An advanced course for those who wish to continue writing. Emphasis upon clear thinking and writing. Devoted exclusively to expository writing including such variants as satire and parody.
Prerequisites: *English* 1*a*, 1*b*. 2 *credits; 1st semester* (Knight)

2b—THE SHORT STORY. Primarily a course in composition, not in the history of the short story form, altho such matter is introduced. Short stories are read and analyzed; one long short story is written.
Prerequisites: *English* 1*a*, 1*b*. 2 *credits; 2nd semester* (Knight)

30—BUSINESS ENGLISH. Primarily for juniors in the College of Commerce. A study of forms of business correspondence, and practice in writing such.
Prerequisites: *English* 1*a*, 1*b*. 2 *credits; both semesters* (Shannon)

The following "One-Hundred" courses open only to Upper Division and Graduate Students

102—HISTORY OF THE ENGLISH LANGUAGE. A survey of the development of the language, based upon Emerson's *History of the English Language;* other readings upon various phases of language development.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 2 *credits; 1st semester* (Dantzler)

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* Courses open to Freshmen.

125—PRONUNCIATION OF MODERN ENGLISH. A study of present day pronunciation; dialectical peculiarities. Students will become proficient in using a phonetic alphabet.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester* (Dantzler)

ENGLISH LITERATURE

3a—HISTORY OF ENGLISH LITERATURE. A survey of English literature from Beowulf to the present. Basic text—English Masterpieces (W. W. Norton and Company). Two classics will be read in addition during the semester.
Prerequisites: *English* 1*a*, 1*b*. 3 *credits; 1st semester* (The Staff)

3b—HISTORY OF ENGLISH LITERATURE. A continuation of English 1a. The same basic text will be used as in English 3a; two classics will be read during the semester.
Prerequisites: *English* 1*a*, 1*b*, 3*a*. 3 *credits; 2nd semester* (The Staff)

*34a—DRAMATIC PRODUCTION. This is a course designed to promote an appreciation of dramatic literature. It offers laboratory work in dramatic theory and experimentation, to prepare teachers to undertake community and high school dramatics; to develop the instinct for self-expression. The Guignol Theatre offers opportunity for acting.
2 *credits; 1st semester* (Fowler)

*34b—DRAMATIC PRODUCTION. This is a continuation of English 34a, which is not prerequisite altho desirable.
2 *credits; 2nd semester* (Fowler)

35—ADVANCED DRAMATIC PRODUCTION. This is a course which continues the work done in English 34a, 34b. Members of the class will write and produce plays in the Guignol Theatre.
Prerequisites: *English* 34*a*, 34*b*, *and consent of instructor*. 2 *credits; 2nd semester* (Fowler)

The following courses open only to Upper Division and Graduate Students

104—THE SEVENTEENTH CENTURY. Cavalier and Puritan Poetry: Milton, Burton, Browne, Bunyan, Walton; Restoration Prose and Poetry. About eight weeks will be given to Milton. 3 *credits* (Gallaway)

106—ENGLISH ROMANTICISM. A careful study of growing signs of Romanticism in the early part of the 18th century. The French Revolution and its influence on the chief poets of the Romantic Movement; special emphasis on Wordsworth, Byron, Shelley, Keats and other prominent poets of the first quarter of the 19th century.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 1st semester* (Brady)

107—VICTORIAN POETS. An extensive study of the ideas of the chief poets of the Victorian era, with special emphasis on the works of Tennyson, Browning, Arnold, Swinburne, and Rossetti.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester* (Brady)

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* Courses open to Freshmen.

108a—PRINCIPLES OF LITERARY CRITICISM. A course designed to show criticism as a growth and development in an historical survey and to give a corpus of opinion about literature.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 1st semester*
(Farquhar)

108b—PRINCIPLES OF LITERARY CRITICISM. A continuation of English 108a, which is not prerequisite altho desirable.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester*
(Farquhar)

109—PRE-SHAKESPEAREAN DRAMA. An historical course in English dramatic origins; a study of the works of Lyly, Kyd, Greene, Peele, Jonson, and Marlowe.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 1st semester*
(Farquhar)

110a—SHAKESPEARE COMEDY. Shakespeare's comedies will be studied in detail.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 1st semester*
(Farquhar)

110b—SHAKESPEARE TRAGEDY. A continuation of English 110a; which is not prerequisite, altho desirable.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester*
(Farquhar)

111a—THE ENGLISH NOVEL BEFORE SCOTT. A survey of the English novel from its beginning to Scott. A critical and appreciative study. Representative novels will be read.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 1st semester*
(Gallaway)

111b—THE ENGLISH NOVEL AFTER SCOTT. A continuation of English 111a, altho the latter is not a prerequisite; it aims to acquaint the student with the development of the novel to and including Stephen Crane, and to assist him in forming theories concerning the art of fiction and appreciation of masterpieces. Eleven novels will be read.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester*
(Knight)

116—THE CONTEMPORARY DRAMA. A course designed to show the development and tendencies in Continental, British and American dramatic literature, 1850 to 1918.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester*
(Farquhar)

119a—LITERATURE FOR ENGINEERS. A course for seniors in the College of Engineering. The content varies from year to year. The object of the course is to acquaint the student with masterpieces of literature and to develop taste for such.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 2 *credits; 1st semester*
(Farquhar)

119b—LITERATURE FOR ENGINEERS. A continuation of English 119a.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*; 119*a*. 2 *credits; 2nd semester*
(Farquhar)

123a—AMERICAN LITERATURE BEFORE 1860. A survey course designed to introduce the student to influences in American life and thought

as well as to its letters. The Puritan and Colonial writers. An anthology and two complete texts are used.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 1st semester* (Knight)

123b—AMERICAN LITERATURE AFTER 1860. A continuation of English 123a, which is not a prerequisite. Beginning with the Civil War, and with considerable attention to Walt Whitman, Emily Dickinson, and the rise of the short story, the realistic school of fiction and the various groups of modern poets, the survey ends with a discussion of contemporary novelists, essayists, poets, and dramatists.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester* (Knight)

124—THE RENAISSANCE. A survey of the literature of the Elizabethan period, exclusive of the drama. Foreign sources of the English Renaissance. The sonnet from its origins to its development in Spenser. The pastoral from Theocritus to Spenser. Utopian literature from Plato to More.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 1st semester* (Dantzler)

127a—LITERATURE OF THE BIBLE. A literary study of the Bible by Books. The purpose of the course is to develop an appreciation of literature generally because of the demand that literature identify itself with the highest thought and feeling.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 1st semester* (Farquhar)

127b—LITERATURE OF THE BIBLE. A continuation of English 127a, which is not prerequisite altho desirable.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester* (Farquhar)

130a—COMPARATIVE LITERATURE. Extensive reading of literary masterpieces from Homer to the present day. A study of traditions of civilization as reflected in literary movements. The readings are assigned in English translations, but a reading knowledge of at least one foreign language is desirable.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 1st semester* (Brady)

130b—COMPARATIVE LITERATURE. A continuation of English 130a, which is not prerequisite, altho desirable.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester* (Brady)

131a to d—INDEPENDENT WORK. A course for juniors and seniors of exceptional scholastic standing. Each student pursues a course independently. He writes a paper embodying the results of his study and submits to an examination by the staff of the Department.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 2 *credits; both semesters* (Dantzler and others)

133—THE DEVELOPMENT OF AMERICAN REALISM. Traces the progress of American realism from Yankee and pioneer humorists, through the local color school, the leading novelists of the eighties and nineties, their contemporaries in drama and poetry, to the writers of today. Especial attention is given to the social and economic conditions which motivated this literature.
3 *credits; 1st semester* (Knight)

136—VICTORIAN PROSE. A study of Carlyle, Ruskin, Newman, Spenser, Arnold, Huxley, and related writers of the period in the field of prose. Special emphasis is placed on Carlyle's *Sartor Resartus,* Newman's *Idea of a University,* and *Apologia Pro Vita Sua.*
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester* (Brady)

143—EDGAR ALLAN POE. A comprehensive study of Poe's works, poetry and prose. Primarily for the summer session.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; summer session* (Farquhar)

145—ELIZABETHAN DRAMA, EXCLUSIVE OF SHAKESPEARE. A survey of English Drama as the title indicates. Especial study of foreign drama upon Elizabethan drama.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester* (Kelley)

147—AGE OF JOHNSON. From the death of Pope to 1798. Johnson and his circle: Burke, Goldsmith, Gray, Walpole, Cowper. The preromantic movement.
Prerequisites: *English* 152*a or consent of instructor.* 3 *credits; 2nd semester* (Gallaway)

151—ROBERT BROWNING. A study of Robert Browning's poetry. Little will be read other than the poetry.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester* (Dantzler)

152—AGE OF POPE. Addison and Steele, Swift, Pope, Defoe.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 1st semester* (Gallaway)

153—RESTORATION—EIGHTEENTH CENTURY DRAMA. A study of the dramatic types that arose between the closing of the theatres in 1642 and the death of Sheridan.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 2nd semester* (Kelley)

The following courses open only to Graduate Students

201a—LITERARY CRITICISM. A course for graduate students only. Students who contemplate taking this course are strongly urged to take English 108a, 108b.
Prerequisite: *A. B. degree.* 3 *credits; 1st semester* (Farquhar)
[GIVEN 1934-35.]

201b—LITERARY CRITICISM. A continuation of English 201a.
Prerequisites: *A. B. degree; English* 201*a*. 3 *credits; 1st semester* (Farquhar)

202a—STUDIES IN CONTEMPORARY DRAMA. A course for graduate students only.
Prerequisite: *A. B. degree.* 3 *credits; 1st semester* (Farquhar)
[NOT GIVEN 1934-35.]

202b—STUDIES IN CONTEMPORARY DRAMA. A continuation of English 202a.
Prerequisites: *A. B. degree; English* 202*a*. 3 *credits; 2nd semester* (Farquhar)

204a—BEOWULF. A linguistic and literary study of *Beowulf.* Some acquaintance with Old English is desirable as a prerequisite.
Prerequisite: *A. B. degree.* 3 *credits; 1st semester* (Dantzler)

204b—BEOWULF. A continuation of English 204a.
Prerequisites: *English* 1*a*, 1*b*; 3*a*, 3*b*. 3 *credits; 1st semester*
English 204*a*. (Dantzler)

205—CHAUCER. A course in Chaucer. All the works of Chaucer will be read. Each student will prepare one lead.
Prerequisite: *A. B. degree.* 3 *credits; 2nd semester* (Dantzler)

206—ALFREDIAN PROSE. A course in Old English, centering in the works of Alfred. Some knowledge of Old English is desirable, tho not required.
Prerequisite: *A. B. degree.* 3 *credits; 1st semester* (Dantzler)
[NOT GIVEN 1934-35.]

207—SPENSER. A study of problems in Spenser research. Attention given to bibliographical material.
Prerequisite: *A. B. degree.* 3 *credits; 2nd semester* (Dantzler)

208—CARLYLE. A study of Carlyle as essayist, critic and literary historian.
Prerequisite: *A. B. degree.* 3 *credits; 1st semester* (Brady)

210a—SEMINAR. Studies in research. This course is required of all candidates for the master's degree in English.
3 *credits; 1st semester* (The Staff)

210b—SEMINAR. A continuation of English 210a.
3 *credits; 2nd semester* (The Staff)

PUBLIC SPEAKING

*6—THE ESSENTIALS OF SPEECH. The course is designed to give the student platform experience in the fundamentals of effective public address. Emphasis will be placed upon correct enunciation, correction of speech defects and other requisite aspects of delivery of the various types of informal address. The material will be commensurate with the interests of freshmen. For freshmen only. 2 *credits; 1st semester* (Sutherland)

7a—ELEMENTS OF PUBLIC SPEAKING. This course is designed to give the student experience in eflective extempore public speaking. Critical studies of contemporary educational, political, social, and economic institutions and problems are read to create a fund of knowledge as a basis for argument and discussion. 3 *credits; 1st semester* (Sutherland)

7b—PUBLIC SPEAKING. A continuation of English 7a, which is not prerequisite, tho desirable. 3 *credits; 1st semester* (Sutherland)

10a—PUBLIC SPEAKING. A course for students in the College of Engineering. The course is designed to give the student experience in effective extempore speaking. The reading in the course is much the same as in English 7a. 2 *credits; 1st semester* (Sutherland)

10b—PUBLIC SPEAKING. A continuation of English 10a. Reading, informal discussion and argument. 2 *credits; 2nd semester* (Sutherland)

11a—ARGUMENT AND DEBATE. This course is organized to familiarize the student with the classics of argumentative technique and to provide him with the opportunity to exercise his skill in making logical construction, logical defenses or refutations.
3 *credits; 1st semester* (Sutherland)

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* Courses open to Freshmen.

11b—ARGUMENTATION AND DEBATE. A continuation of English 11a, which is not prerequisite, tho desirable.

3 *credits; 2nd semester* (Sutherland)

15a—ORATORY. The work in this course is devoted to advanced extempore speaking and to the study of the art of formal address.
Prerequisites: *English 7a, 7b; or 10a, 10b.* 2 *credits; 1st semester* (Sutherland)

15b—ORATORY. A continuation of English 15a, which is not prerequisite tho desirable.
Prerequisite: *English 7a, 7b; or 10a, 10b.* 2 *credits; 2nd semester* (Sutherland)

GEOGRAPHY

The following courses in Geography are offered in the University and are collected here for the convenience of the students:

ECONOMICS

8—ECONOMIC GEOGRAPHY. A brief study of the earth's physical characteristics and their relation to man's activities, including the effects of climate, natural resources and means of transportation upon the development of social, political and economic phases of life.

3 *credits; 1st semester* (Carter)

12—ECONOMIC GEOGRAPHY OF NORTH AMERICA. A detailed study of the agricultural, mineral, lumber, fishery and other economic resources of North America. The emphasis is placed upon the resources of the United States, the various geographical sections being intensively studied.

3 *credits; 2nd semester* (Carter)

GEOLOGY

24a—ELEMENTS OF GEOGRAPHY. A study of natural environment. Climate and weather. Factors controlling the nature and distribution of climates. Weather, and weather forecasting. Climatic regions of the world. Human aspects. 3 *credits; 1st semester* (Young)

24b—ELEMENTS OF GEOGRAPHY. A study of natural environment. The earth's surface features, their origin and development. Materials of the earth, their origin and use. Physiographic regions of the different continents. Human aspects. Not available for credit to students who have had Geology 22a. 3 *credits; 2nd semester* (Young)

25a—REGIONAL PHYSICAL GEOGRAPHY. A regional study of climatic and physiographic regions in North America. An explanation of the nature and origin of these regions. Human aspects.
Prerequisites: *Geology 24a, b or 22a.* 3 *credits; 2nd semester* (Young)

GEOLOGY

Professor McFarlan, Associate Professor Robinson, Mr. Averitt, Mr. Young

REQUIREMENTS FOR A MAJOR. Prerequisites: Geology 22a, 22b, Required: Geology 15a, 15b, 9a, 9b, 19a, 19b, 101a, 101b, 106a, 106b, 109a, 109b, 117a, 117b, 118a, or 118b. *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 and coastal plain. 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.

Students majoring in Geology are required to enroll in tutorial courses during the senior year and pass a final comprehensive examination in the department.

REQUIREMENTS IN THE FIELD OF CONCENTRATION. Forty credits in the Field of Physical and Biological Science, including the major work in courses not open to freshmen.

*3—ELEMENTARY GEOLOGY FOR AGRICULTURAL STUDENTS. A brief course in general geology consisting chiefly of a study of geologic processes and a brief discussion of historical geology. Two recitations and lectures and one laboratory period a week. 3 *credits; 2nd semester*

7—ENGINEERING GEOLOGY. The practical application of geology to engineering work. A treatment of metallic and non-metallic mineral resources. Brief outline of historical geology.
Prerequisite: *Geology* 12. 2 *credits; 1st semester*

9a—FIELD GEOLOGY. Topographic mapping. Six hours of field work a week.
Prerequisites: *Geology 22a, b; 15a, b.* 2 *credits; 1st semester* (Averitt)

9b—FIELD GEOLOGY. Structure mapping and contouring. An introduction to field methods involving the identification and tracing of formations, elementary areal mapping and representation of structure by contours.
Prerequisites: *Geology 22a, b; 15a, b.* 2 *credits; 2d semester* (Young)

12—ELEMENTARY GEOLOGY FOR ENGINEERS. An introduction to the principles of Geology as a background for the work in Geology 7. Two recitations and one laboratory conference. 3 *credits; 2nd semester*

*14a—ELEMENTARY FIELD GEOLOGY. Visits are made to localities in the vicinity of Lexington, Ky., which illustrate various geologic phenomena. 1 *credit*

* Courses open to Freshmen.

*14b—ELEMENTARY FIELD GEOLOGY. Local field trips as in 14a. 1 *credit*

15a—ADVANCED GEOLOGY. A study of geological history and the interpretation of the geological record. A study of the various steps in the development of North America as it is today. An outline of the development of plant and animal life thruout geological time. To be accompanied by Geology 19a.
Prerequisites: *Geology* 22*a*, 22*b*. 3 *credits; 1st semester* (McFarlan)

15b—ADVANCED GEOLOGY. A continuation of 15a treated from a regional point of view. The geological history of selected regions in the United States. To be accompanied by Geology 19b.
Prerequisite: *Geology* 15*a*. 3 *credits; 2nd semester* (McFarlan)

19a—LABORATORY WORK IN HISTORICAL GEOLOGY. A laboratory background for Geology 15a.
Prerequisites: *Geology* 22*a, b*. 1 *credit; 1st semester* (Young)

19b—LABORATORY WORK IN HISTORICAL GEOLOGY.
Prerequisites: *Geology* 22*a, b*. 1 *credit; 2nd semester* (Young)

*22a—ELEMENTARY GEOLOGY. A study of the force and processes which determine the surface features of the earth and which in the past have determined the present conditions. Emphasis is placed on the application of an understanding of these processes to the interpretation of earth history. Three lectures, one laboratory conference per week. 4 *credits; 1st semester*

22b—ELEMENTARY GEOLOGY. A continuation of Geology 22a including an introduction to the study of mineral resources and earth history. Three lectures and one laboratory conference (or one field trip per week for one half semester) per week. 4 *credits; 2nd semester*

*23a—ELEMENTARY FIELD WORK IN REGIONAL GEOLOGY. Two weeks in the field in the Appalachian Mountains and coastal plain in a study of regional geological features. The course is offered as a part of the first summer session and is planned for the student with no other training than a year's introductory geology. The party works in conjunction with that of Geology 118a.
Prerequisites: *Geology* 22*a*, 22*b*. 2 *credits* (McFarlan and Young)

*23b—ELEMENTARY FIELD WORK IN REGIONAL GEOLOGY. A course the same type as 23a, but involving a different area.
Prerequisites: *Geology* 22*a*, 22*b*. 2 *credits* (McFarlan and Young)

24a—ELEMENTS OF GEOGRAPHY. A study of natural environment. Climate and weather. Factors controlling the nature and distribution of climates; weather, and weather forecasting. Climatic regions of the world. Human aspects. 3 *credits; 1st semester* (Young)

24b—ELEMENTS OF GEOGRAPHY. A study of natural environment. The earth's surface features, their origin and development. Minerals of the earth, their origin and use. Physiographic regions of the different continents. Human aspects. Not available for credit to students who have had Geology 22a. 3 *credits; 2nd semester* (Young)

25a—REGIONAL PHYSICAL GEOGRAPHY. A regional study of climatic and physiographic regions in North America. An explanation of the nature and origin of these regions. Human aspects.
Prerequisite: *Geology* 24*a-b* (*or* 22*a*). 3 *credits; 2nd semester* (Young)

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* Courses open to Freshmen.

The following courses open only to Upper Division and Graduate Students

101a—PALEONTOLOGY. A study of fossil invertebrates, their morphology, classification, and geological distribution. One lecture, two laboratory periods a week.
Prerequisites: *Geology* 15*a*, 15*b*, *and* *Zoology* 1*a*, 1*b or a* *Zoological background.* 3 *credits; 1st semester* (McFarlan)

101b—PALEONTOLOGY. A continuation of 101a directed toward the study of geological faunas and the determination of their age relationships. One lecture, two laboratory periods a week.
Prerequisite: *Geology* 101*a*. 3 *credits; 2nd semester* (McFarlan)

104a—ADVANCED FIELD GEOLOGY. A field course directed to unraveling of local stratigraphy and structure. Six hours in the field a week.
Prerequisite: *Geology* 9*b*. 2 *credits; 1st semester* (McFarlan)

104b—ADVANCED FIELD GEOLOGY. A continuation of Geology 104a. May be repeated. 2 *credits* (McFarlan)

105a to d—INDEPENDENT WORK IN GEOLOGY. Directed work in independent investigations. Thesis required. 3 *credits*

106a—ECONOMIC GEOLOGY. Non-metallic mineral deposits. A study of the origin, mode of occurrence, treatment and uses of deposits of economic importance. Two lectures, one laboratory period per week.
Prerequisites: *Geology* 15*a-b*. 3 *credits; 1st semester* (Averitt)

106b—ECONOMIC GEOLOGY. Metallic Mineral Deposits. A study of the origin and mode of occurrence of metalliferous deposits. The economics of various metal industries and methods of treatment of ores will be briefly considered. Two lectures, one laboratory period per week.
Prerequisites: *Geology* 15*a-b*. 3 *credits; 2nd semester* (Averitt)

109a—MINERALOGY. A laboratory course covering crystallography, and physical mineralogy. The course includes a study of the systems and classes of crystals, their use in mineral identification, and the physical properties of about 100 minerals stressing those characteristics that are important in recognizing minerals. Four hours laboratory a week.
Prerequisites: *Chemistry* 1*a-b*. 2 *credits; 1st semester* (Robinson)

109b—MINERALOGY. A laboratory course covering chemical, descriptive and determinative mineralogy (including blow-pipe analysis). The course includes a study of the origin, occurrence, association and alteration and identification of about 150 minerals. Four hours laboratory.
Prerequisite: *Geology* 109*a*. 2 *credits; 2nd semester* (Robinson)

116—OIL GEOLOGY. A discussion of the origin, accumulation and production of petroleum. The course includes a consideration of the stratigraphy and structure of the producing provinces of the United States and a study of geologic methods used in exploratory work.
Prerequisites: *Geology* 15*a-b*. 2 *credits; 2nd semester* (Robinson)

117a, b, c, d—SEMINAR. A course required of seniors in the department for the consideration of research work, independent work and review of current technical literature. May be repeated more than once.
1 *credit; each semester* (All members of staff)

118a—FIELD WORK IN REGIONAL GEOLOGY. Two weeks in the field in the Appalachian Mountains and coastal plain in a study of regional geological features. The course is an effort to bring the student into contact with geological phenomena and problems different from those found

locally. The course is offered as a part of the first summer session coming in between Commencement and the opening of the summer term. Required of major students at the end of their Junior year.
Prerequisites: *Geology* 15*a, b,* 16*a, b.* 2 *credits* (McFarland and Young)

118b—FIELD WORK IN REGIONAL GEOLOGY. A course of the same type as 118a but involving a different area. Offered on alternate years with 118a.
Prerequisites: *Geology* 15*a, b.* 2 *credits* (McFarlan and Young)

120a—GEOLOGY OF KENTUCKY. A study of the geological features of the state other than mineral resources. These include the major events in its geological history, the development of regional characters and an explanation of its scenic and natural wonders.
No prerequisite. 3 *credits* (McFarlan)

120b—GEOLOGY OF KENTUCKY. The mineral resources of the state, their distribution, origin and uses.
No prerequisite. 3 *credits* (McFarlan)

Courses open only to Graduate Students

202a—RESEARCH IN GEOLOGY. Registration only after consultation with instructor. May be repeated more than once.
5 *credits; 1st semester*

202b—RESEARCH IN GEOLOGY. 5 *credits; 2nd semester*

207a—PETROLOGY: OPTICAL MINERALOGY. A review of the principles of optics as applied to the petrographic microscope, the use of the microscope and other apparatus and descriptions of rock-forming minerals with their associations and alteration products. One recitation and lecture and four hours laboratory a week.
Prerequisites: *Geology* 109*a-b,* *Physics* 1*a-b.* 3 *credits; 1st semester* (Robinson)

207b—PETROLOGY. The origin, metamorphism and decay of igneous rocks. Practice in the use of the various mineralogical and chemical classifications in use of the present time and practice in writing descriptions from thin sections and hand specimens. One recitation and lecture and four hours laboratory a week.
Prerequisite: *Geology* 107*a.* 3 *credits; 2nd semester* (Robinson)

208—STRUCTURAL GEOLOGY. A study of rock structures, rock deformation and diastrophism with a consideration of the theories and principles involved.
Prerequisites: *Geology* 15*b,* 109*b,* *and Physics* 1*a-b.* 3 *credits; 1st semester* (Robinson)

210—STRATIGRAPHIC PALEONTOLOGY. The course deals with the succession of geological faunas of the different periods as a basis for the correlation and determination of the age relationships of geological formations. One lecture, two laboratory periods per week.
Prerequisites: *Geology* 101*a, b.* 3 *credits; 2nd semester* (McFarlan)

211—PRINCIPLES OF SEDIMENTATION. A study of the source, transportation and deposition of sediment as a basis for the determination of the origin of sedimentary strata, the conditions under which they were formed, and their correlation. One lecture, two laboratory periods per week.
Prerequisites: *Geology* 15*a, b,* 109*a, b.* 3 *credits; 2nd semester*

OUTLINE OF COURSES FOR GEOLOGY MAJOR

FRESHMAN YEAR

First Semester		Second Semester	
English 1a	3	English 1b	3
Foreign Language	3	Foreign Language	3
Mathematics 17	3	Mathematics 19	3
Mathematics 18	2	Geology 22b	4
Geology 22a	4		
Hygiene 1	1		

SOPHOMORE YEAR

First Semester		Second Semester	
Foreign Language	3	Foreign Language	3
Econ. or Pol. Sci.	3	Econ. or Pol. Sci.	3
Chemistry 1a	5	Chemistry 1b	5
Eng'n'g Draw. 1a	2	Civil Engin. 61	2
Geology 15a	3	Civil Engin. 62	1
Geology 19a	1	Geology 15b	3
		Geology 19b	1

JUNIOR YEAR

First Semester		Second Semester	
English 7a	3	English 7b	3
Zoology 1a	4	Zoology 1b	4
Chemistry 4	4	Geology 9b	2
Geology 9a	2	Geology 106b	2
Geology 106a	2	Geology 109b	2
Geology 109a	2	Chemistry 8	5
		Geology 118a (summer)	2

SENIOR YEAR

First Semester		Second Semester	
Psychology or Philosophy	3	Psychology or Philosophy	3
Physics 1a	5	Physics 1b	5
Zoology 108a	2	Zoology 108b	2
Geology 117a	1	Geology 117b	1
Geology 101a	3	Geology 101b	3
Geology 104a	2	Geology 104b	2
Metallurgy or Mining	2-3	Met. or Mining	2-3

GERMAN

Professor Bigge,† Professor Melcher, Emeritus, Dr. Hegeman, Mr. Whitaker

REQUIREMENTS FOR A MAJOR. Prerequisite Courses: 1a, 1b, 2a, 2b, Required: A minimum of 18 credits of advanced work independent of tutorial courses. Major students are required to enroll in tutorial courses. 1 credit a semester thru the junior and senior years, and to pass a final comprehensive examination in German.

REQUIREMENTS IN FIELD OF CONCENTRATION. Forty credits in the field of Literature, Philosophy and the Arts, including the major work in courses not open to freshmen.

† On leave 1935-36.

*1a—ELEMENTARY GERMAN. The essentials of grammar and translation of easy prose with practice in reading and writing German. No credit is given for Course 1a until Course 1b is completed.
3 *credits; both semesters* (Staff)

*1b—ELEMENTARY GERMAN. Continuation of German 1a, with more extended exercises in easy reading, writing, and pronunciation.
Prerequisites: *German 1a or one high school unit.* 3 *credits; both semesters* (Staff)

*2a—INTERMEDIATE GERMAN. Graded reader, followed by short stories from representative authors. Practice in writing and speaking German.
Prerequisite: *German 1b* 3 *credits; both semesters* (Staff)

*2b—INTERMEDIATE GERMAN. Continuation of German 2a. Selected readings. Grammar review and composition.
Prerequisite: *German 2a.* 3 *credits; 2nd semester* (Staff)

3a—SELECTED READING. Prose and poetry from standard German authors with brief outline of German literature.
Prerequisite: *German 2b.* 3 *credits; 1st semester* (Staff)

3b—SELECTED READING. Continuation of German 3a.
Prerequisite: *German 2b.* 3 *credits; 2nd semester* (Staff)

4a—CONTEMPORARY GERMAN LITERATURE. Leading tendencies in German literature since 1870. Readings, discussions, and reports.
Prerequisite: *3a.* 3 *credits; 1st semester* (Hegeman)
[NOT GIVEN 1934-35; OFFERED 1935-36]

4b—CONTEMPORARY GERMAN LITERATURE. Continuation of Course 4a.
Prerequisite: *3b.* 3 *credits; 2nd semester* (Hegeman)
[NOT GIVEN 1934-35; OFFERED 1935-36]

5—HISTORY OF GERMAN LITERATURE. With special emphasis on tendencies in literary development during the classical period. Readings and reports.
Prerequisite: *3b.* 3 *credits; 1st semester* (Whitaker)
[NOT GIVEN 1934-35; OFFERED 1935-36]

6a—SCIENTIFIC GERMAN. This course is designed primarily for students of the sciences.
Prerequisites: *2a and 2b.* 3 *credits; each semester* (Whitaker)
[GIVEN 1934-35; OFFERED 1935-36]

6b—SCIENTIFIC GERMAN. Continuation of 6a.
Prerequisite: *6a.* 3 *credits; each semester* (Whitaker)
[GIVEN 1934-35; OFFERED 1935-36]

Courses open only to Upper Division and Graduate Students

101a—NINETEENTH CENTURY LITERATURE. Studies in German literature of the 19th century with special emphasis on selected authors.
Prerequisite: *3b.* 3 *credits; 1st semester* (Hegeman)
[GIVEN 1934-35; OFFERED 1935-36]

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* Courses open to Freshmen.

101b—NINETEENTH CENTURY LITERATURE. Continuation of Course 101a.
Prerequisite: 3*b*. 3 *credits; 2nd semester* (Hegeman)
[GIVEN 1934-35; OFFERED 1935-36]

102a—TWENTIETH CENTURY LITERATURE. Reading discussions and reports.
Prerequisites: 4*a*, 4*b*. 3 *credits; 1st semester* (Hegeman)
[GIVEN 1934-35; OFFERED 1935-36]

102b—TWENTIETH CENTURY LITERATURE. Continuation of Course 102a.
Prerequisites: 4*a*, 4*b*. 3 *credits; 2nd semester* (Hegeman)
[GIVEN 1934-35; OFFERED 1935-36]

105a to d—INDEPENDENT WORK. This course is designed for students of particular excellence in the department.
3 *credits; both semesters* (Staff)

110a—GERMAN CONVERSATION AND COMPOSITION. This course is designed for students who have a good command of German grammar and fair conversational ability and who wish to achieve fluency and ease in the speaking and writing of German. The course will be conducted wholly in German, and conversation will be upon topics chosen from the field of literature, daily life, and current events. The composition work will consist in the reproduction in German of English articles and in the preparation of original themes.
Prerequisite: *German 2b or its equivalent.* 2 *credits; 1st semester* (Staff)

110b—GERMAN CONVERSATION AND COMPOSITION. Continuation of 110a.
Prerequisite: *German 2b or its equivalent.* 2 *credits; 2nd semester* (Staff)

120a, b—JUNIOR TUTORIAL IN GERMAN.
1 *credit; both semesters* (Staff)

130a, b—SENIOR TUTORIAL IN GERMAN.
1 *credit; both semesters* (Staff)

160a—LITERARY LANDMARKS OF GERMANY. This course will run approximately six weeks and will be devoted mainly to directed travel and study in Germany and Austria. It is the purpose of this course to review the noteworthy contributions of German men of letters and to acquaint the student with the actual circumstances calling forth the creation of these literary works. Tour, assigned readings, quizzes, lectures and reports.
Prerequisite: *German 2b*. 3 *credits;*† *summer* 1936 (Bigge)

160b—LITERARY LANDMARKS OF GERMANY. Continuation of 160a. 3 *credits;*† *summer* 1936 (Bigge)

HISTORY

Professor Tuthill, Professor Clyde, Associate Professor Knapp, Assistant Professor Hall, Assistant Professor Lunde, Dr. Clark.

Courses 2a, 2b will prepare the freshman for later courses in American history, law, and English history and literature. Courses

† 160a and 160b are to be scheduled concurrently.

4a, 4b for freshmen, are recommended for cultural values in European civilization, languages, foreign commerce, and a somewhat broader outlook on the world.

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

REQUIREMENTS FOR A MAJOR. Prerequisites: History 2a, 2b, or 4a and 4b. Required: A minimum of 18 credits of advanced courses in History. Should include the Senior Seminar.

REQUIREMENTS IN THE FIELD OF CONCENTRATION. Forty credits in the Field of Social Studies, including the major work, in courses not open to freshmen.

*2a—HISTORY OF THE BRITISH PEOPLE TO THE RESTORATION. From the Roman period to the Stuart period. A general survey of the various epochs and phases of the English people at home and abroad.
3 *credits* (Hall)

*2b—HISTORY OF THE BRITISH PEOPLE SINCE THE RESTORATION. From the Stuart period to the present. A continuation of 2a.
3 *credits* (Hall)

*4a—MODERN EUROPE TO THE FRENCH REVOLUTION. A general survey of the rise of modern states in Europe to the French Revolution, with related topics. Text. Class reports. Open to freshmen.
3 *credits; both semesters* (Lunde)

*4b—MODERN EUROPE FROM THE FRENCH REVOLUTION TO THE PRESENT. A continuation of Course 4a, treating European conditions from the French Revolution to the present, based on Schevill's History of Europe. For freshmen and others offering 4a or equivalent.
3 *credits; both semesters* (Lunde)

*5a—HISTORY OF THE UNITED STATES. Beginning about 1750, and tracing the principal features thereof to 1860. Designed especially to meet the requirements of elementary teachers' certificates in Kentucky. (Note: Students may not take 5a and 10a, nor 5b and 10b.)
3 *credits; both semesters* (Clark)

*5b—HISTORY OF THE UNITED STATES. A continuation of Course 5a, from 1860 to the present. See note on 5a.
3 *credits; both semesters* (Clark)

10a—HISTORY OF THE AMERICAS. A survey of the history of North and South America, the founding and development of the colonial empires of Spain, England, Portugal, France and The Netherlands, the movements for independence in North America and South America in the 18th and early 19th centuries, the political economic and social development of the United States and of the greater Latin-American Republics, the colonial empire in America, and the rise of the Americas in world politics. Lectures, texts, collateral reading and an essay. Recommended to all who intend to elect American History.
Prerequisite: *One year of college history.* 3 *credits; 1st semester* (Knapp)

10b—HISTORY OF THE AMERICAS. A continuation of Course 10a.
3 *credits; 2nd semester* (Knapp)

40—HISTORY OF KENTUCKY. A general survey of the chief periods of Kentucky's growth and development from 1750 to the present.
2 *credits* (Tuthill or Clark)

I. COURSES OPEN ONLY TO UPPER DIVISION AND GRADUATE STUDENTS

100a—THE DIPLOMACY AND FOREIGN POLICY OF THE UNITED STATES, TO 1860. A survey designed to acquaint the student with the principles of American foreign policy and their historical evolution in practice.
Prerequisite: *Course 10a, or equivalent.* 3 *credits; 1st semester* (Clyde)
[GIVEN 1934-35]

100b—THE DIPLOMACY AND FOREIGN POLICY OF THE UNITED STATES SINCE 1860. A continuation of course 100a.
Prerequisite: *Course 10b, or equivalent.* 3 *credits; 2nd semester* (Clyde)
[GIVEN 1934-35]

105—COLONIAL AMERICA. A study of the beginnings of the English colonies, the colonial background, political, social, and economic development, extension of their frontiers, inter-colonial wars, and external relations with the Dutch, French and Spanish. Emphasis on imperial policies and imperial control and the controversies arising therefrom.
Prerequisite: 1 *year of American or English History in college.* 3 *credits* (Knapp)
[GIVEN 1934-35]

106a—COLONIAL LATIN AMERICA. A survey of the founding and development of the Latin American Colonies and their struggle for independence.
[GIVEN 1934-35] 2 *credits* (Knapp)

106b—LATIN AMERICAN REPUBLICS. This course will include a study of the political, economic, and social institutions, and problems of the Latin American Republics from the attainment of independence to the present.
[GIVEN 1934-35] 2 *credits* (Knapp)

114—THE RENAISSANCE. A study of the Italian Renaissance from 1300 to 1500. The states and cities of Italy and their scholars; general movements, political and other; rise of the modern spirit along the several lines of art and science, education, philosophy, commerce and exploration.
[GIVEN 1934-35] 3 *credits; 1st semester* (Tuthill)

115—THE RENAISSANCE IN THE NORTH. A continuation of Course 114 with reference to the awakening of the new spirit in France, England, Germany, and the background of the Reformation period.
[GIVEN 1934-35] 3 *credits* (Tuthill)

116—SENIOR SEMINAR. A course for Seniors designed to present the bibliography and literature of selected fields.
[GIVEN 1934-35] 2 *credits; 2nd semester* (Tuthill and Staff)

119a—THE FRENCH REVOLUTION AND NAPOLEON. A study of the period 1789-1815 in Europe, treating of the appearance and manifestation of the spirit of revolt. Conditions in France and adjoining nations, the evolution of France from 1778 to 1795 and subsequent changes under Na-

poleon. Open to juniors, seniors and graduate students, with supplementary reading for the latter.
[GIVEN 1934-35] 3 *credits* (Tuthill)

119b—THE NINETEENTH CENTURY. Starting with the fall of Napoleon, this course treats the successive political changes in 1823, 1830, 1848 and 1871, together with the outstanding commercial, cultural and scientific features of European life after 1815; the expansion of Europe in Africa and Asia, and the reactions upon the great states of the world.
[GIVEN 1934-35] 3 *credits* (Tuthill)

120—THE TWENTIETH CENTURY. A study of recent and contemporary movements, chiefly in Europe. The rise and conflict of the chief colonial empires; European interference and control in Asia and Africa; forces and elements leading up to the great war; including socialism, public education, invention and discoveries. Reports on current literature and assigned reading on a liberal scale.
[NOT GIVEN 1934-35; OFFERED 1935-36] 3 *credits; 2nd semester* (Tuthill)

131a—ENGLISH CONSTITUTIONAL HISTORY TO 1603. A study of the backgrounds of the English constitution; the Anglo-Saxon contribution; the Norman conquest and development of governmental and legal institutions during the 12th and 13th centuries; the rise of Parliament; the Tudor strong monarchy to its close in 1603. Two hours a week.
Prerequisite: *History 2a or equivalent.* 3 *credits* (Hall)
[NOT GIVEN 1934-35; OFFERED 1935-36]

131b—ENGLISH CONSTITUTIONAL HISTORY SINCE 1603. A continuation of Course 131a. The constitutional struggle between the Stuart kings and Parliament; triumph of constitutional monarchy; rise of the Cabinet; effect of the spread of democracy in recent times. Two hours a week.
Prerequisite: *History 2b or equivalent.* 3 *credits* (Hall)
[NOT GIVEN 1934-35; OFFERED 1935-36]

135a—THE BRITISH EMPIRE (TO 1860). Review of the various elements affecting Great Britain and her Empire between 1783 and 1860: The Industrial Revolution; The French Revolution; Development of British Sea Power. The early growth and development of Canada, Australia, New Zealand, South Africa, and India. Lectures, class discussions, readings, reports. Three hours a week.
[NOT GIVEN 1934-35; OFFERED 1935-36] 3 *credits* (Hall)

135b—THE BRITISH EMPIRE (SINCE 1860). A continuation of 135a. Great Britain and the growth of the Dominions and the Commonwealth since 1860. Particular attention given to the history of the Canadian Dominion and the extension of the idea to other portions of the Commonwealth; their relations with the rest of the World. Three hours a week.
[OFFERED 1935-36] 3 *credits* (Hall)

140a to d—INDEPENDENT WORK. Under special conditions selected students may investigate special problems, with weekly reports to the instructor. 2 *credits* (Staff)

147—RECENT HISTORY OF THE UNITED STATES. An intensive

study of the principal movements and episodes in the history of the people of the United States from the Spanish American War to the present.
Prerequisite: *One year of American History.* 3 *credits; 2nd semester* (Knapp)
[GIVEN 1934-35]

160—THE CIVIL WAR PERIOD IN KENTUCKY. A close study of neutrality, war and readjustment with emphasis on political, economic, and social developments in Kentucky from 1860 to 1870. Open only to advanced students.
[NOT GIVEN 1934-35] 2 *credits* (Tuthill or Clark)

165—THE AMERICAN CIVIL WAR. The raising of troops, major strategies of the war, with special attention to slavery, foreign affairs, politics and economic life.
[NOT GIVEN 1934-35] 2 *credits* (Knapp)

166a—DIVISION AND REUNION, 1850-1865. An intensive study of sectionalism in the United States from 1850 to 1860. The political, military, economic, industrial, and educational aspects of the period of the Civil War. Emphasis on the problems of the Border States.
[NOT GIVEN 1934-35] 3 *credits* (Knapp)

166b—DIVISION AND REUNION, 1865-1877. A continuation of Course 166a, treating the various phases of reconstruction and the reunion of the states.
[NOT GIVEN 1934-35] 3 *credits* (Knapp)

170—THE ERA OF LOUIS XIV. A study of the general conditions of Western Europe from 1648 to 1715, and particularly of the institutions and power of France under the leadership of Louis XIV, as reflected in the life and culture of Europe and her colonies.
Prerequisite: 1 *year of European History.* 3 *credits* (Tuthill)
[NOT GIVEN 1934-35]

184—THE GEOGRAPHIC BASIS OF AMERICAN HISTORY. A study of the relationship of geography to history and the influence of the physiography upon the settlement and growth of various regions of the Americas.
Prerequisites: 10 *semester hours of American History.* 1 *credit* (Knapp)
[GIVEN 1934-35]

190a—THE FAR EAST TO 1900. European and American contacts with China, Japan, Korea, eastern Siberia and the Philippines to the close of the 19th century.
Prerequisite: *History* 4*b*. 3 *credits* (Clyde)
[GIVEN 1934-35]

190b—THE FAR EAST SINCE 1900. The developing influence of the Far East in world affairs during the 20th century.
Prerequisite: *History* 190*a*. 3 *credits* (Clyde)
[GIVEN 1934-35]

II. COURSES IN THE "200" GROUP

These courses are for graduate students, with a few selected seniors. They are content courses, presented by the lecture and discussion method, and as such are distinct in character from the "300" group, which is concerned with problems and the practice of research.

202—THE AMERICAN REVOLUTION.
3 *credits* (Knapp)

206—THE CONFEDERATION OF THE UNITED STATES.
3 *credits* (Knapp)

226—THE OLD SOUTH.
3 *credits* (Knapp)

230—THE POPULIST MOVEMENT.
3 *credits* (Knapp)

231—THE BRITISH EMPIRE SINCE 1815.
3 *credits* (Hall)

236—HISTORY OF THE WEST.
3 *credits* (Knapp)

280—EUROPEAN HISTORIOGRAPHY. Two hours.
2 *credits* (Tuthill)

281—AMERICAN HISTORIOGRAPHY. Two hours.
2 *credits* (Knapp)

282—HISTORICAL CRITICISM. Two hours.
2 *credits* (Tuthill)

III. COURSES IN THE "300" GROUP

SEMINARS—Basically research in character. These are not content courses. They provide laboratory training in historical research (collection and critical analysis of bibliography, note-taking and organization of materials, and the presentation of a properly documented thesis). It is desirable that the student take the Senior Seminar before enrolling in "300" courses. 3 hours credit, 2 class hours, 1 conference hour.

300a, b, c, d—SEMINAR IN AMERICAN DIPLOMACY.
3 *credits* (Clyde)

315a, b, c, d—HENRY CLAY.
3 *credits* (Knapp)

320a, b, c, d—ORIGINS OF THE GREAT WAR.
3 *credits* (Tuthill)

331—SEMINAR IN MODERN BRITISH HISTORY.
3 *credits* (Hall)

340a, b, c, d—SEMINAR IN AMERICAN DIPLOMACY IN THE PACIFIC AREA.
3 *credits* (Clyde)

365—THE AMERICAN CIVIL WAR.
3 *credits* (Knapp)

366—RECONSTRUCTION.
3 *credits* (Knapp)

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.

HYGIENE AND PUBLIC HEALTH

Professor Chambers, Associate Professor Pinney, Dr. Hughes†, Dr. Thomas, Dr. Doyle, Assistant Professor Heinz‡, Mr. Hamilton, Miss Desha, Miss Davis

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 physician 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. 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.

*1—PERSONAL AND COMMUNITY HEALTH. Lectures and Recitation. An introduction to the principles of personal and community health. 1 *credit; both semesters* (Hamilton)

*9—HYGIENE FOR TEACHERS. This course is designed to meet the State requirements of two credits in Hygiene for the elementary certificates. 2 *credits; both semesters* (Hamilton)

7—FIRST AID. A course designed especially for senior mining engineers. 1.3 *credits; first half of 2nd semester* (Pinney)

100a—PUBLIC HEALTH. Lectures, Recitations and Problems. A general consideration of different fields of public health.
Prerequisite: *Hygiene* 1. 3 *credits; 1st semester* (Chambers, Hamilton)

100b—PUBLIC HEALTH. A continuation of 100a.
Prerequisites: *Hygiene* 1 *and Hygiene* 100*a*. 3 *credits; 2nd semester* (Chambers, Hamilton)

110—HEALTH EDUCATION AND HEALTH SUPERVISION OF SCHOOLS. A general course covering the principles and practices of school health work. 3 *credits; summer school only* (Chambers)

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* Courses open to Freshmen.
† Died December 23, 1934.
‡ On leave 1935-36.

124—PUBLIC HEALTH NURSING. The principles and practices of Public Health Nursing. 3 *credits; summer school only* (Staff)

140—CURRENT TRENDS IN PUBLIC HEALTH. A lecture course arranged primarily for public health nurses, but open to others interested in public health. Its purpose is to present current scientific information relating to public health. The lectures will be presented by leaders in specialized fields. Topics that may be considered are: Mental Hygiene, Vital Statistics, Child Growth and Development, Sanitation, Correctible Defects, Maternity Care, Foods, Communicable Diseases, and Dietary Deficiency Diseases. 2 *credits; summer school only* (Staff)

150a—PROBLEMS IN HEALTH EDUCATION. An individual-problems course for teachers in service, based upon a systematic attack upon the health problems of a school. The work of the course will consist of an initial survey, a statement of problems, a diary of steps in problem solving, a report of related community activities, a final survey and a summary and evaluation of results. 3 *credits* (Staff)

150b—PROBLEMS IN HEALTH EDUCATION. A continuation of 150a. 3 *credits* (Staff)

160—COMMUNITY HEALTH EDUCATION. A course designed for public health nurses already engaged in the field for the purpose of acquainting them with principles and methods in adult education, that may be effectively applied in a community health program, particularly as it relates to the nurse's daily activities.
2 *credits; summer school only* (Staff)

200—EPIDEMIOLOGY. The control of communicable disease. For health officers only. 2 *credits; summer school only* (Staff)

212—PUBLIC HEALTH ADMINISTRATION. The organization and administration of public health. For health officers only.
2 *credits; summer school only* (Staff)

218—VITAL STATISTICS. Statistics of populations, births, deaths, marriage, morbidity. For health officers only.
2 *credits; summer school only* (Staff)

JOURNALISM

Professor Grehan, Assistant Professor McLaughlin, Assistant Professor Portmann, 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 function a Board of Student Publications, a Campus Bulletin, the Kentucky Kernel (student newspaper), and allied publications, the Alumnus (monthly), Kampus Kat (humorous paper), and The Kentucky Press (a monthly paper for the editors of the state press). All are used in laboratory work. The department is supplied with necessary standard equipment for the printing and publishing of a modern community newspaper, and for highgrade com-

mercial job printing which serves the student body. In this equipment also is a type laboratory for instructional purposes in the study of typography, make-up, and the mechanics of publishing and advertising.

REQUIREMENTS FOR A MAJOR. Prerequisites: Journalism 1a, 1b, and either 11 or 12. Required: Journalism 104a, 104b, 105, 106, 107, 108.

REQUIREMENTS IN THE FIELD OF CONCENTRATION. Forty credits in the Field of Literature, Philosophy and the Arts, including the major work in courses not open to freshmen.

The degree of A. B. in Journalism. Two sequences are offered which, when completed, lead to the degree of A. B. in Journalism. See outline below.

*1a—REPORTING. A study of the fundamentals of newspaper reporting; typewriting. Not open to juniors and seniors.
No prerequisites. 3 *credits; both semesters* (McLaughlin, Plummer)
[GIVEN 1934-35; OFFERED 1935-36]

*1b—REPORTING. Continuation of 1a.
Prerequisite: *Journalism* 1*a*. 3 *credits; both semesters* (McLaughlin, Plummer)
[GIVEN 1934-35; OFFERED 1935-36]

11—ADVANCED REPORTING. A study of specialized news reporting with emphasis placed on "beat" and court reporting.
Prerequisites: *Journalism* 1*a-b*. 3 *credits; both semesters* (Plummer)
[GIVEN 1934-35; OFFERED 1935-36]

12—FEATURE WRITING. A study of the writing of feature stories for newspapers, magazines, and other publications.
Prerequisites: *Journalism* 1*a-b*. 3 *credits; both semesters* (Plummer)
[GIVEN 1934-35; OFFERED 1935-36]

21—ETYMOLOGY. A study of words and their fundamental values with reference to development of a writing vocabulary.
Prerequisite: *Sophomore standing*. 3 *credits; both semesters* (Grehan)
[GIVEN 1934-35; OFFERED 1935-36]

Courses open only to Upper Division and Graduate Students

102—COMMUNITY JOURNALISM. A study of the problems which confront the community weekly and the small city daily.
Prerequisites: *Journalism* 1*a-b*; 11 *or* 12. 3 *credits; 1st semester* (Portmann)
[GIVEN 1934-35; OFFERED 1935-36]

103—NEWSPAPER ADMINISTRATION. A study of the business circulation, and accounting divisions of the newspaper with special emphasis placed on the community newspaper.
Prerequisites: *Journalism* 1*a-b*; 11 *or* 12. 3 *credits; 2nd semester* (Portmann)
[GIVEN 1934-35; OFFERED 1935-36]

104a—COPYREADING, PROOFREADING, TYPOGRAPHY, EDITING. No credit for 104a until 104b has been completed. Lecture one hour; laboratory four hours a week. Majors must take 104 in their junior year. A non-credit, one-hour laboratory course in linotype and other printing

* Courses open to Freshmen.

machinery is offered by Mr. Griffith in connection with 104a, to a selected group of students.

Prerequisites: *Journalism* 1*a-b*; 11 *or* 12. 3 *credits; 1st semester*
[GIVEN 1934-35; OFFERED 1935-36] (Portmann)

104b—COPYREADING, PROOFREADING, TYPOGRAPHY, EDITING. Continuation of 104a. Lecture one hour, laboratory four hours a week.

Prerequisites: *Journalism* 1*a-b*; 11 *or* 12; 104*a*. 3 *credits; 2nd semester* (Portmann)
[GIVEN 1934-35; OFFERED 1935-36]

105—LAW OF THE PRESS. A study of the special laws of libel, copyright, regulatory provisions, etc., that pertain to the press.

Prerequisites: *Journalism* 1*a-b*; 11 *or* 12. 3 *credits; 1st semester*
[GIVEN 1934-35; OFFERED 1935-36] (Portmann)

106—ETHICS AND PRINCIPLES OF JOURNALISM. A study of the practices and application of the ethics, principles, and standards in modern journalism.

Prerequisites: *Journalism* 1*a-b*; 11 *or* 12; *senior standing*. 3 *credits; 1st semester* (Portmann)
[GIVEN 1934-35; OFFERED 1935-36]

107—EDITORIAL WRITING. A study of editorial writings, and the editorial page and its contents, aims, and results, and of the critical writing of the fine arts.

Prerequisites: *Journalism* 1*a-b*; 11 *or* 12; *senior standing* 3 *credits; both semesters* (Grehan)
[GIVEN 1934-35; OFFERED 1935-36]

108—HISTORY OF JOURNALISM. A study of the rise and development of American journalism and newspapers.

Prerequisites: *Journalism* 1*a-b*; 11 *or* 12; *senior standing*. 3 *credits; 2nd semester* (Portmann)
[GIVEN 1934-35; OFFERED 1935-36]

110—SUPERVISION OF HIGH SCHOOL PUBLICATIONS. A study of the problems that confront the adviser of the high school newspaper or magazine. Open to advisers or prospective advisers with consent of the instructor. Two hours daily.

Prerequisite: *Senior college standing*. 3 *credits; 1st or 2nd summer session* (Portmann)
[GIVEN 1934-35; OFFERED 1935-36]

111—VERBAL CRITICISM. A study of words and their synonyms with reference to developing accuracy in use of English in journalistic work.

Prerequisite: *Junior standing*. 3 *credits; both semesters* (Grehan)
[GIVEN 1934-35; OFFERED 1935-36]

115—ADVERTISING TYPOGRAPHY AND LAYOUT. A study of the principles of typographic families, illustrations, decorations, etc., as pertains to modern advertising. Practical work with merchants is included in the latter part of the course. Lecture two hours; laboratory two hours.

Prerequisites: *Senior standing; Psychology* 5, *or consent of instructor*. 3 *credits; 2nd semester* (Portmann)
[GIVEN 1934-35; OFFERED 1935-36]

OUTLINE OF COURSE LEADING TO DEGREE A. B. IN JOURNALISM, GENERAL SEQUENCE

Students should elect this sequence at the beginning of their sophomore year. It can be elected at the beginning of the junior year providing all requirements of the freshman and sophomore years have been met.

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.	3		3.
Psychology 2a	General Psychology	2	2	3.
Hygiene 1	Personal and Community Health	2		1.
Military Science 1a	First Year Basic Course, Inf.	1	2	1.3
Physical Ed. 1a	Gymnasium or Field Athletics		2	.7
Matric. Lect.	Required of all	1		.3
				18.3

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.	3		3.
Psychology 2b	General Psychology	2	2	3.
Military Science 1b	First Year Basic Course, Inf.	1	2	1.3
Physical Ed. 1b	Gymnasium or Field Athletics		2	.7
				17.0

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 11	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 5a, Political Sci. 15 or 51, 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 or 18.2

Second Semester

Journalism 12	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 5b, Political Sci. 15 or 51, 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 or 18.2

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 104a	Copyreading, etc.	1	4	3.
Journalism 102	Community Journalism	3		3.
English 123a or 130a	Amer. Literature, Comparative Lit.	3		3.
Psychology 5	Advertising and Selling	3		3.
Journalism 105	Law of the Press	3		3.
				15.

Second Semester

Journalism 104b	Copyreading, etc.	1	4	3.
Journalism 103	Newspaper Administration	3		3.
English 123b or 130b	Amer. Literature, Comparative Lit.	3		3.
Electives	Journ. 111, History, English, Pol. Sc., Sociology (Numbers above 100)			6.
				15.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 106	Ethics and Principles	3		3.
Electives	Journ. 21, History, English, Pol. Sc., Sociology (Numbers above 100)			12.
				15.

Second Semester

Journalism 108	History of Journalism	3		3.
Journalism 107	Editorial Writing	3		3.
Electives	Journ. 111, Journalism 115, History, English, Pol. Sc., Sociology (Numbers above 100)			9.
				15.

Minimum credits required for degree 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	Astronomy or Elementary Geology	3		3.
Hygiene 1	Personal and Community Health	2		1.
Military Science 1a	1st Year Basic Course, Inf.	1	2	1.3
Physical Ed. 1a	Gymnasium, Field Athletics		2	.7
Matric. Lect.	Required of all	1		.3
				18.3

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	Astronomy or Elementary Geology	3		3.
Military Science 1b	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 11	Advanced Reporting	3		3.
Mod. For. Lang.	French, German, Spanish	3		3.
Biological Sci.	Bacteriology, Bot., Zool. or Physiol.	3		3.
Political Sci. 51 or 15	Amer. Govt. or Prob. of Citizenship	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

Journalism 12 or Journalism 21	Feature Writing or Etymology	3		3.
Mod. For. Lang.	French, German, Spanish	3		3.
Biological Sci.	Bacteriology, Bot., Zool. or Physiol.	3		3.
Political Sci. 51 or 15	Amer. Govt. or Prob. of Citizenship	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 104a	Copyreading, etc.	1	4	3.
Journalism 105	Law of the Press	3		3.
Journalism 102	Community Journalism	3		3.
Sociology 101	Social Dependence	3		3.
Political Sci 52	Municipal Government	3		3.
				15.

Second Semester

Journalism 104b	Copyreading, etc.	1	4	3.
Journalism 103	Newspaper Administration	3		3.
Sociology 5	Rural Social Economy	3		3.
Sociology 108	Community Surveys	3		3.
Political Sci. 153	City Administration	3		3.
				15.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Journalism 106	Ethics and Principles	3		3.
Psychology 5	Advertising and Selling	3		3.
Political Sci. 154	County Government	3		3.
Electives	History 10a, English 123a, Journ. 111, Political Sc., Sociology, English (Numbers over 100)			6.
				15.

Second Semester

Journalism 107	Editorial Writing	3		3.
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. 111, Journ. 115, Political Sc., Sociology, English (Numbers over 100)			3.
				15.

Minimum credits required for degree 130.

LAW

A student in the College of Arts and Sciences may elect towards the A. B. or B. S. degree a total of 30 credits from other colleges of the University. However, election of law courses is restricted.

LIBRARY SCIENCE

Professor Semmons, Miss Budd, Miss King, Mrs. Wood, Miss Cass.

The Department of Library Science affords opportunity for students in the College of Arts and Sciences to gain the A. B. Degree with Library Science as a major; for students in the College of Education to gain the A. B. in Education or B. S. in Education degree with Library Science as a second major, as outlined in the "Suggested Curriculum for Teacher Librarians" of the College of Education.

REQUIREMENTS FOR A MAJOR. Prerequisites: Senior or graduate standing. Good cultural background, especially in literature, language and the social sciences. Students desiring to enter Library Science courses should consult early in their college course with the Director

concerning preparation for matriculation. Previous experience in library work and facility in the use of the typewriter are considered assets. Required courses: 30 credits or full curriculum advised.

REQUIREMENTS IN FIELD OF CONCENTRATION. Forty credits of advanced work in the Field of Literature, Philosophy, and the Arts (or acceptable equivalent), including the major work.

126—PLACE, FUNCTION, ADMINISTRATION, AND OPPORTUNITY OF THE HIGH SCHOOL LIBRARY. A study of the place, function, administration and opportunity of the library in the modern school. Major topics discussed: The Librarian's relation to faculty, students, and outside agencies; the fundamentals of library planning and equipment; personnel problems and their management; business management, including accounts, records and statistics; methods of stimulating reading habits and handling an effective service.

[GIVEN 1934-35; OFFERED 1935-36] 3 *credits; 1st semester* (King)

128—CHILDREN'S LITERATURE. A brief introduction to the field of children's literature and a comparative study of different classes and types of books with regard to the independent reading of children of different age groups and reading interests, with special emphasis on myth, folk tale and legend, followed by the reading and discussion of all types of books suitable for the junior high school. Special study of story telling; of illustration and physical make-up of books; of editions; of children's magazines and book-reviewing periodicals; and of aids in the selection of books for young people.

Education 173 *accepted in lieu,* 1934-35. 2 *credits; 2nd semester*

[NOT OFFERED 1935-36] (Semmons)

129a, b—CATALOGING AND CLASSIFICATION. A study of the principles and forms of cataloging by the unit card system with some use of Library of Congress cards; of the assigning of subject headings, especially for the High School and elementary school library; and of the principles of classification with their application in the effective administration of the library. Practice work under supervision is required in classifying books by the Dewey Decimal System and in making a shelf list and dictionary catalog. Lectures, problems and assigned readings.

3 *credits; 1st semester* (Semmons)

[GIVEN 1934-35; OFFERED 1935-36] 2 *credits; 2nd semester* (Semmons)

131—LIBRARY SERVICE TO CHILDREN. The effective organization and administration of library work with children, with emphasis on the direction of children's reading, the equipment of children's rooms, and the assembly of special materials, especially for the elementary school library. Offered to supplement Education 173 and to provide the equivalent of Library Science courses 128 and 132 not offered during the regular academic year 1935-36.

[GIVEN 1934-35; OFFERED 1935-36] 1 *credit; 2nd semester* (Semmons)

132—LIBRARY WORK WITH CHILDREN. The effective organization and administration of library work with children, developed thru a study of the history of the work; of the economic and social background of the pupil; of the qualifications of the librarian; and of the equipment of rooms and the assembly of materials. Special emphasis on methods of directing the child's reading.

[NOT OFFERED 1935-36] 2 *credits; 2nd semester* (Semmons)

133a, b—REFERENCE AND BIBLIOGRAPHY. A study of essential reference works, particularly those most valuable in school libraries, including dictionaries, encyclopedias, atlases, yearbooks, periodical indexes, and reference books on special subjects; and of the more important subject and trade bibliographies, with discussion of government documents, and vertical file material, and of the standards by which such material is selected. Lectures, problems and assigned readings.

3 *credits; 1st semester* (Cass)
[GIVEN 1934-35; OFFERED 1935-36] 2 *credits; 2nd semester* (Semmons)

138—METHODS OF TEACHING THE USE OF THE LIBRARY. The course emphasizes the functions of the library in the modern school and community; the value of developing in students a love of reading and research and of teaching them the effective use of library facilities. It includes the reading of articles on library lessons in school; a study of methods of teaching the use of the library with adaptation to grade taught; of plans for presenting the various types of materials; and the organization and presentation by the class members of a definite course of lessons correlated with the subject curricula of the school.
Prerequisite: 133*a*. 2 *credits; 2nd semester* (Wood)
[GIVEN 1934-35; OFFERED 1935-36]

139—FIELD WORK. Comparable to practice teaching. Supervised practical work in all departments of the University Training School and other school libraries, two periods a week of two consecutive hours; supplemented by Seminar discussions.
Prerequisites: 129, 133, 150. 2 *credits; 2nd semester* (Wood)
[GIVEN 1934-35; OFFERED 1935-36]

144—LIBRARY RECORDS AND METHODS. A course planned to emphasize the essentials of library organization and the importance of routine processes in the library, as related to effective library service. The various procedures necessary to the acquisition, accessioning, circulation and care of books and minor materials, and purchase of supplies are studied by means of assigned readings, problems, class discussions and occasional lectures.
[GIVEN 1934-35; OFFERED 1935-36] 2 *credits; 1st semester* (Semmons)

150a, b—BOOK SELECTION. A study of principles and standards in the choice of books and periodicals for Junior and Senior High Schools. Practical problems in book selection and acquisition; a study of American publishers, inexpensive editions, of book reviewing periodicals and aids to book selection; the writing of book notes; the reading and discussion of typical books in the fields of biography, travel, essays, drama, poetry, fiction, history, sociology, art, and science.

3 *credits; 1st semester* (Semmons)
[GIVEN 1934-35; OFFERED 1935-36] 2 *credits; 2nd semester* (King)

154—SEMINAR. A survey of the field of library science through a brief study of the history and personnel of the modern library movement and the various agencies that have developed—library associations, schools, commissions, periodicals, etc.; of standards for professional training and certification; of the present library situation in the South and future needs; of current problems of special interest to the librarian. General discussion, with special reports on assigned topics.
Prerequisites: 133; 126, 129 *desirable*. 2 *credits; 2nd semester*
[GIVEN 1934-35; OFFERED 1935-36] (Semmons)

MATHEMATICS AND ASTRONOMY

Dean Boyd, Professor Davis, Emeritus, Professor Latimer, Professor Rees†, Professor Downing, Associate Professor LeStourgeon, Assistant Professor Cohen, Assistant Professor South, Assistant Professor Brown, Mr. Canaday, Miss Pence†, Mr. Allison, Mr. Hutchison, Mr. Palmquist, Mr. Donaldson

MATHEMATICS

Students planning to teach secondary-school mathematics should consider Courses 1 to 20b, 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 elementary calculus before counting work toward advanced degree. The White Mathematics Club and Pi Mu Epsilon meet regularly for the study of some book of general interest or for the presentation of special topics.

REQUIREMENTS FOR A MAJOR. Prerequisites, Courses 17, 18, 19, 20a. 20b will count on the major if taken in the junior year. Required: A minimum of 18 credits of advanced work in mathematics in upper division, including courses in the fields of algebra, geometry, analysis and applications. Major students are required also to enroll in tutorial courses, 1 credit a semester through the junior and senior years, and to pass a final comprehensive examination in mathemetics.

REQUIREMENTS IN THE FIELD OF CONCENTRATION, UPPER DIVISION. Forty credits in the Field of Physical Sciences, including the major work, in courses not open to freshmen.

*D—NON-CREDIT COURSE. Required as prerequisite to freshman courses of those assigned on basis of psychological and placement tests.
No credits; both semesters (Hutchison)

*1—ELEMENTARY ALGEBRA. For students entering with only one unit of algebra and who wish to take college algebra or trigonometry.
3 *credits; both semesters* (Latimer, Brown)

*2—SOLID GEOMETRY. For those who have not had the subject in high school and wish to take analytics.
3 *credits; both semesters* (Palmquist, Donaldson)

*17—COLLEGE ALGEBRA. The usual course leading to further work in mathematics.
Prerequisite: 1½ *units high school algebra.* 3 *credits; both semesters* (Staff)

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* Courses open to Freshmen.
† On leave 1935-36.

*18—PLANE TRIGONOMETRY. A course covering the essentials.
Prerequisite: 1½ *units high school algebra.* 2 *credits; both semesters* (Staff)

19—PLANE ANALYTIC GEOMETRY. The standard course, including plane and solid analytics.
Prerequisites: *Courses* 2, 17, 18. 3 *credits; both semesters* (Staff)

20a—DIFFERENTIAL CALCULUS. The course covers parts of differential calculus and an introduction to the integral.
Prerequisite: *Course* 19. 4 *credits; both semesters* (Staff)

20b—INTEGRAL CALCULUS. Completing the course in elementary calculus. Solid analytics will be treated briefly.
Prerequisite: *Course* 20*a*. 4 *credits; both semesters* (Staff)

11—SPHERICAL TRIGONOMETRY. Primarily for Civil Engineers. Two hours a week, second half of semester.
Prerequisite: *Course* 18. 1 *credit; 2nd semester* (Downing)

12—LEAST SQUARES. Primarily for Civil Engineers. Two hours a week first half of semester.
Prerequisite: *Course* 19. 1 *credit; 2nd semester* (Downing)

*14—MATHEMATICS OF FINANCE. Primarily for Commerce students.
Prerequisite: *Course* 17. 5 *credits; both semesters* (South, Brown)

16a-d—TUTORIAL WORK IN MATHEMATICS. Open only to majors in mathematics. 1 *credit; both semesters* (Senior Staff)

Courses open only to Upper Division and Graduate Students

102—VECTOR ANALYSIS. An elementary course in the algebra and calculus of vectors with numerous applications to geometry and physics.
Prerequisite: *Course* 20*b*. 3 *credits; 1st semester* (Downing)
[OFFERED 1935-36]

103—THEORY OF EQUATIONS. This course is based on Dickson's First Course in the Theory of Equations, which is used as a text.
Prerequisite: *Course* 20*a*. 3 *credits; 2nd semester* (Boyd, Downing)
[GIVEN 1934-35; OFFERED 1935-36]

105a—DIFFERENTIAL EQUATIONS. A first course in differential equations based on A. Cohen's text.
Prerequisite: *Course* 20*b*. 3 *credits; 1st semester* (LeStourgeon, Cohen)
[GIVEN 1934-35; OFFERED 1935-36]

106a—ADVANCED CALCULUS. Limits and infinite series. Continuous functions. The definite integral and derivative. Application to power series and Fourier series.
Prerequisite: *Mathematics* 20*b*. 3 *credits; 1st semester* (Cohen)
[OFFERED 1935-36]

106b—ADVANCED CALCULUS. Continuation of 106a. Functions of several variables. Partial differentiation. Multiple integrals. Green's Theorem. Maxima and Minima.
Prerequisite: *Math.* 106*a or consent of instructor.* 3 *credits; 2nd semester* (Cohen)
[OFFERED 1935-36]

* Courses open to Freshmen.

107—PROJECTIVE GEOMETRY. A brief course, based on a text like Dowling's.
Prerequisite: *Course* 20*a*. 3 *credits; 1st semester* (Boyd)
[GIVEN 1934-35]

110a-d—INDEPENDENT WORK IN MATHEMATICS. Limited to upper division students of high standing.
Prerequisite: *Course* 20*b*. 3 *credits; both semesters* (Senior Staff)
[GIVEN 1934-35; OFFERED 1935-36]

112—SERIES. Important theorems on limits, properties of infinite series, including differentiation and integration of infinite series, uniform convergence, multiplication of series.
Prerequisite: *Course* 20*b*. 3 *credits; 2nd semester* (Brown)
[GIVEN 1934-35]

115—SUBSTITUTION GROUPS. This course will cover the material contained in chapters 7 to 14 of Dickson's "Modern Algebraic Theories."
Prerequisite: *Math.* 20*a*. 3 *credits; 2nd semester* (Latimer)
[OFFERED 1935-36]

116—ANALYTIC MECHANICS. Topics included: Composition and resolution of forces; statics of a particle; moments; couples; center of gravity; friction; simple harmonic motion; constrained motion work and energy inertia impulse.
Prerequisite: *Course* 20*b*. 3 *credits; 2nd semester* (Downing)
[GIVEN 1934-35]

118—SOLID ANALYTIC GEOMETRY. Loci of Equations of first and second degree in three variables. Determinates and matrices. Methods and principles of use in various fields of higher mathematics.
Prerequisite: *Course* 20*b*. 3 *credits; 1st semester* (LeStourgeon)
[GIVEN 1934-35]

119—MODERN GEOMETRY. A course covering the ground substantially as presented in Allschiller Court's text.
Prerequisite: *Course* 20*a*. 3 *credits; 2nd semester* (Boyd)
[OFFERED 1935-36]

120—MATHEMATICAL STATISTICS. Topics considered: Averages, coefficients of dispersion and skewness, graphical representation, Bernoulli's Theorem, curve-fitting, theory of sampling, correlation, and regression lines.
Prerequisite: *Course* 20*a*. 3 *credits; 2nd semester* (South)
[OFFERED 1935-36]

122—ACTUARIAL MATHEMATICS. Theory and construction of mortality tables, life annuities, premiums, terminal venues, etc.
Prerequisites: *Math.* 14 *and* 20*a*. 3 *credits; 1st semester* (South)
[GIVEN 1934-35]

Courses open only to Graduate Students

202a—ALGEBRAIC CURVES. The classical theory as presented by Salmon, Willeitner or Ganguli.
[OFFERED 1935-36] 3 *credits; 1st semester* (Boyd)

203—THESIS. Required in addition to 24 credits for master's degree.
3 *credits; either semester* (Senior Staff)

204—CALCULUS OF VARIATIONS. Examples illustrating the various types of problems. The differential equation of a curve which min-

imizes a definite integral. Other properties of a minimizing are as deduced by Legendre, Weierstrass and Jacobi, Isoperimetric problems.
Prerequisites: *Courses* 105*a*, 106*a*. 3 *credits; 1st semester* (Downing)
[OFFERED 1935-36]

205—DIFFERENTIAL GEOMETRY. Introduction study of metric properties of surfaces and twisted curves. Although vector analysis is not required, vector methods will be found of great assistance in the study.
[GIVEN 1934-35] 3 *credits; 1st semester* (Downing)

208—THEORY OF FUNCTIONS OF A REAL VARIABLE. Theory of the real number systems. Elements of point-set theories; measure of sets. Study of continuities and discontinuities, and the Riemann and Lebesgue theories of integration.
Prerequisites: *Courses* 105*a*, 106*a*. 3 *credits; 2nd semester* (Cohen)
[GIVEN 1934-35]

209—THEORY OF FUNCTIONS OF A COMPLEX VARIABLE. Introduction to the algebra and calculus of complex numbers and their geometric representation. Conformal transformation. Theory presented mainly from the Cauchy-Riemann viewpoint, with reference to the Weierstrass development. Introduction to Riemann surfaces.
Prerequisites: *Courses* 105*a*, 106*a*. 3 *credits*; *2nd semester* (LeStourgeon)
[OFFERED 1935-36]

211—HIGHER ALGEBRA. This course covers the material in Chapters 2-11 inclusive and Chapter XX in Bocher's "Introduction to Higher Algebra."
Prerequisite: *Course* 20*a*. 3 *credits; 1st semester* (Latimer)
[OFFERED 1935-36]

220a-d—MATHEMATICS SEMINAR.
[GIVEN 1934-35] 2 *credits; both semesters* (Latimer)

ASTRONOMY

*51a—DESCRIPTIVE ASTRONOMY. An elementary, non-mathematical course. 3 *credits; 1st semester* (Downing, South)

*51b—DESCRIPTIVE ASTRONOMY. Continuation of 51a. 3 *credits; 2nd semester* (Downing, South)

Note: Other courses such as Fourier's Series, Potential Function, Advanced Analytics, second courses in various subjects, Algebraic Numbers, Algebraic Invariants, Celestial Mechanics, Practical Astronomy, Elementary Observations in Astronomy, will be given from time to time.

MILITARY SCIENCE

Major Brewer, Captain Scudder, Captain Triplett, Captain Scheibla, First Lieutenant LeStourgeon, First Lieutenant Criswell, Master Sergeant Short, Sergeant Kinker Sergeant Perkins

RESERVE OFFICERS' TRAINING CORPS

The University of Kentucky maintains an infantry unit of the

* Courses open to Freshmen

senior division of the Reserve Officers' Training Corps in conformity with the provisions of the National Defense Act of 1916, as amended.

Object

The 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 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 qualify students for positions of leadership in time of national emergency and to inculcate in them a respect for all lawful authority, and to teach the fundamentals of the military profession.

The primary purpose of all training is the development of character, leadership, and good citizenship; character through high standards of honor and integrity, leadership through the acquisition and use of knowledge, good citizenship through the idea of service as the real measurement of accomplishment and success.

Discipline of Body and Mind

The following characteristics of an officer and a gentleman will be insisted upon: Neatness in dress, the cultivation of the manners and habits of a gentleman, a dignified and military bearing, devotion to duty and consideration for others; 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, 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 continue in the Reserve Officers' Training Corps during the remainder of our course in this or any other institution where such course is offered, to devote five hours a week during such period to the military training prescribed and to pursue the course 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.

*1a—FIRST YEAR BASIC COURSE. Introductory course in Military Science covering the following subjects: Orientation, Obligations of Citizenship, Military History, Current International Situation, Military Discipline, Courtesies and Customs of the Service, Sanitation and First Aid, Organization, Map Reading, and Leadership. One recitation and two laboratory hours. 1.3 *credits; 1st semester* (Scudder, Kinker, Perkins)

*1b—FIRST YEAR BASIC COURSE. Continuation of introductory course in Military Science, covering the following subjects: Drill and Command, Map Reading and Weapons. One recitation and two laboratory hours. 1.3 *credits; 2nd semester* (Scudder, Kinker, Perkins)

*1a1—FIRST YEAR BASIC COURSE—BAND. For Freshmen. Three times a week. 1.3 *credits; 1st semester* (J. Lewis, Criswell)

*1b1—FIRST YEAR BASIC COURSE—BAND. For freshmen. Three times a week. 1.3 *credits; 2nd semester* (J. Lewis, Criswell)

6a—SECOND YEAR BASIC COURSE. Course in Military Science covering the following subjects: Military fundamentals, weapons, musketry. One recitation and two laboratory hours.
Prerequisites: *Military Science* 1*a-b*. 1.5 *credits; 1st semester* (Scheibla, Criswell, Short)

6b—SECOND YEAR BASIC COURSE. Course in Military Science covering the following subjects: Scouting and Patrolling, Combat Principles, Drill and Command. One recitation and two laboratory hours.
Prerequisites: *Military Science* 1*a-b*. 1.5 *credits; 2nd semester* (Scheibla, Criswell, Short)

6a1—SECOND YEAR BASIC COURSE—BAND. For Sophomores. Three times a week. 1.5 *credits; 1st semester* (J. Lewis, Criswell)

6b1—SECOND YEAR BASIC COURSE—BAND. For Sophomores. Three times a week. 1.5 *credits; 2nd semester* (J. Lewis, Criswell)

7a—FIRST YEAR ADVANCED COURSE. Course in Military Science covering the following subjects: Aerial Photography, Principles of Leadership, Instructional Methods, Weapons, Combat Training. Three recitation and two laboratory hours.
Prerequisites: *Military Science* 1*a-b*; 6*a-b*. 3.0 *credits; 1st semester*
[GIVEN 1934-35; OFFERED 1935-36.] (LeStourgeon)

7b—FIRST YEAR ADVANCED COURSE. Course in Military Science covering following subjects: Continuation of Combat Training, Drill and Command. Three recitations and two laboratory hours.
Prerequisites: *Military Science* 1*a-b*; 6*a-b*. 3.0 *credits; 2nd semester*
[GIVEN 1934-35; OFFERED 1935-36.] (LeStourgeon)

8a—SECOND YEAR ADVANCED COURSE. Course in Military Science covering the following subjects: Military Fundamentals, Military Law, Administration and Supply, Officers' Reserve Corps, Regulations, Leadership. Three recitations and two laboratory hours.
Prerequisites: 1*a-b*; 6*a-b*; 7*a-b*. 3.0 *credits; 1st semester* (Triplett)
[GIVEN 1934-35; OFFERED 1935-36.]

* Courses open to Freshmen.

8b—SECOND YEAR ADVANCED COURSE. Course in Military Science covering the following subjects: Continuation of Leadership, Weapons, Mechanization, Drill and Command, Signal Communications. Three recitations and two laboratory hours.
Prerequisites: 1*a-b*; 6*a-b*; 7*a-b*. 3.0 *credits; 2nd semester* (Triplett)
[GIVEN 1934-35; OFFERED 1935-36.]

MUSIC DEPARTMENT

Professor Lampert, Miss Mildred Lewis, Mr. John Lewis, Mrs. Dudley South, Mrs. Cullis, Mr. Alexander Capurso, Mrs. C. A. Lampert

The aim of this department is to provide musical leadership in Kentucky of a thoroughly 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 to work to apply on the degree of Bachelor of Science in Music.

The following courses are not open to students who are candidates for the A. B. degree or B. S. degree: Music 9a, 9b, 14a, 14b.

Not more than 16 credits in Applied Music may be offered to count toward the A. B. or B. S. degrees.

REQUIREMENTS FOR MAJOR: Prerequisites: Music 21a, 21b, 25a, 25b, Psychology 1. Required: Music 19a, 19b, 11a, 11b, 12a, 12b, 30a, 30b, 4a, 4b, 26.

REQUIREMENTS IN THE FIELD OF CONCENTRATION: Forty credits in the field of literature, philosophy and the arts, including the major work, in courses not open to freshmen.

4a—PUBLIC SCHOOL MUSIC. A course in methods of teaching music in the primary grades. 2 *credits; 1st semester* (M. Lewis)

4b—PUBLIC SCHOOL MUSIC. A course in methods of teaching music in the intermediate grades. 2 *credits; 2nd semester* (M. Lewis)

*21a—SIGHT READING. Drill in notation of music, scale and interval relations and rhythmic values, and their interpretation vocally. 1.5 *credits; 1st semester* (M. Lewis)

*21b—SIGHT READING. Continuation of previous semester's work and introduction of chords. 1.5 *credits; 2nd semester* (M. Lewis)

25a—ELEMENTARY HARMONY. Scale building, melodic and harmonic ear training, triads, and their relation in open and close position, the minor mode, classification of intervals, non-harmonic tones, inversions, the dominant seventh chord and its inversions, free composition. 3 *credits; 1st semester* (Lampert)

* Courses open to Freshmen.

25b—ELEMENTARY HARMONY. Secondary triads, modulation, supertonic seventh, dominant ninth, borrowed chords, free composition.
3 credits; 2nd semester (Lampert)

26—HIGH SCHOOL MUSIC. A course in methods of teaching music in high school.
2 credits; 1st semester (M. Lewis)

11a—ADVANCED HARMONY. Secondary seventh harmonies, chords of the ninth, altered chords, augmented sixth chords, free composition.
Prerequisite: *Harmony* 11*a*.
2 credits; 1st semester (Lampert)

11b—ADVANCED HARMONY. Chords with raised fifths, transition, modulation, modern tendencies, free composition.
Prerequisite: 11*a*.
2 credits; 2nd semester (Lampert)

12a—COUNTERPOINT AND COMPOSITION. Simple counterpoint in all species of applied counterpoint, including the conduct of single melodic part and the association of two melodic parts.
Prerequisites: 25*a*, 25*b*, 11*a*, 11*b*.
2 credits; 1st semester (Lampert)

12b—COUNTERPOINT AND COMPOSITION. Continuation of 12a, applied counterpoint, including various modes of imitation, the invention forms and analysis.
Prerequisites: 25*a*, *b*; 11*a*, *b*; 12*a*.
2 credits; 2nd semester (Lampert)

*9a—ORGANIZATION AND TRAINING OF MUSICAL GROUPS. The first four courses devoted to the technics, organizing, instructing and directing of instrumental ensembles. The first semester deals specifically with the string instruments.
2 credits; 1st semester (Lampert)

9b—ORGANIZATION AND TRAINING OF MUSICAL GROUPS. Deals with brass instruments and the use of percussion.
2 credits; 2nd semester (Capurso)

14a—ORGANIZATION AND TRAINING OF MUSICAL GROUPS. Deals with the clarinet, flute, saxophone, and double reed instruments.
2 credits; 1st semester (Capurso)

14b—ORGANIZATION AND TRAINING OF MUSICAL GROUPS. Technique and practice of conducting and arranging for symphony orchestra and wind band.
2 credits; 2nd semester (Lampert)

*15a—APPLIED MUSIC. Study of piano, voice, violin, organ or some symphonic orchestral instrument. B. S. students only.
3 credits; 1st semester
(Lampert, Mrs. Lampert, South, Cullis, J. Lewis)

*15b—APPLIED MUSIC. Continuation of 15a. B. S. students only.
3 credits; 2nd semester
(Lampert, Mrs. Lampert, South, Cullis, J. Lewis)

16a—APPLIED MUSIC. Continuation of 15b. B. S. students only.
3 credits; 1st semester
(Lampert, Mrs. Lampert, South, Cullis, J. Lewis)

16b—APPLIED MUSIC. Continuation of 16a. B. S. students only.
3 credits; 2nd semester
(Lampert, Mrs. Lampert, South, Cullis, J. Lewis)

17a—APPLIED MUSIC. Continuation of 16b. B. S. students only.
3 credits; 1st semester
(Lampert, Mrs. Lampert, South, Cullis, J. Lewis)

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* Courses open to Freshmen.

17b—APPLIED MUSIC. Continuation of 17a. B. S. students only.
3 *credits; 2nd semester*
(Lampert, Mrs. Lampert, South, Cullis, J. Lewis)

18a—APPLIED MUSIC. Continuation of 17b. B. S. students only.
3 *credits, 1st semester*
(Lampert, Mrs. Lampert, South, Cullis, J. Lewis)

18b—APPLIED MUSIC. Continuation of 18a. B. S. students only.
3 *credits; 2nd semester*
(Lampert, Mrs. Lampert, South, Cullis, J. Lewis)

35a-h—PIANO. The possible maximum of 16 credits for Applied Music may be gained in Piano, under the numbers 35a to 35h. One lesson and 10 hours' practice per week. A. B. students.
2 *credits* (Mrs. Lampert and Mrs. Cullis)

36a-h—VIOLIN. The possible maximum of 16 credits for Applied Music may be gained in Violin under the numbers 36a to 36h. One lesson and 10 hours' practice per week. A. B. students.
2 *credits* (Lampert and Capurso)

37a-h—VOICE. The possible maximum of 16 credits for Applied Music may be gained in Voice, under the numbers 37a to 37h. One lesson and 10 hours' practice per week. A. B. students. 2 *credits* (Mrs. South)

38a-h—ORGAN. The possible maximum of 16 credits for Applied Music may be gained in Organ, under the numbers 38a to 38h. One lesson and 10 hours' practice per week. A. B. students. 2 *credits* (Mrs. Cullis)

*40a-d—ORCHESTRA. Students who have demonstrated the required ability are given opportunity to study standard orchestral literature. Public performances are given at regular intervals. Four credits of the possible maximum of 16 credits in Applied Music may be gained in Orchestra under the numbers 40a-40d. 1 *credit; 1st semester* (Lampert)

*41a-h—METHODS AND MATERIALS FOR ORCHESTRA AND BAND. A course for those students not far enough advanced on their instrument to play with regular orchestra. A laboratory orchestra, 2 hours a week. 1 *credit; 1st semester* (Capurso)

*39a-d—GLEE CLUB. Any student in the University may be admitted to the glee club after consultation with the director. Four credits of the possible maximum of 16 credits in Applied Music may be gained in Glee Club, under the numbers 39a-39d.
1 *credit; 1st semester* (Lampert, Lewis)

19a—HISTORY AND APPRECIATION OF MUSIC. A survey of national music. The development of the orchestra and of instrumental music.
2 *credits; 1st semester* (Lampert)

19b—HISTORY AND APPRECIATION OF MUSIC. The opera. A survey of the progress of music in its various forms and a study of its composers. 2 *credits; 2nd semester* (Lampert)

*22a—BAND. For freshmen not enrolled in Military Science.
1.3 *credits; 1st semester* (J. Lewis)

*22b—BAND. For freshmen not enrolled in Military Science.
1.3 *credits; 2nd semester* (J. Lewis)

23a—BAND. For sophomores not enrolled in Military Science.
1.5 *credits; 1st semester* (J. Lewis)

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* Courses open to Freshmen.

23b—BAND. For sophomores not enrolled in Military Science.
1.5 *credits; 2nd semester* (J. Lewis)

28a—CONCERT BAND. For Juniors.
1 *credit; 1st semester* (J. Lewis)

28b—CONCERT BAND. For Juniors.
1 *credit; 2nd semester* (J. Lewis)

29a—CONCERT BAND. For Seniors.
1 *credit; 1st semester* (J. Lewis)

29b—CONCERT BAND. For Seniors.
1 *credit; 2nd semester* (J. Lewis)

30a—EAR TRAINING. Drill in recognition from dictation of rhythms and intervals in a melody, and memorizing of material dictated.
Prerequisites: 21*a*, 21*b*. 3 *credits; 1st semester* (M. Lewis)

30b—EAR TRAINING. Continuation of previous semester's work, with the introduction of simple harmonic material.
3 *credits; 2nd semester* (M. Lewis)

110a-d—INDEPENDENT WORK IN MUSIC. Not open to lower division students. 3 *credits per semester* (Lampert)

UNIVERSITY ORCHESTRA

The University orchestra is a student organization assisted by members of the faculty and citizens of the community. The orchestra appears regularly in concerts. In the college community it is making itself a decisive factor in the raising of the musical tone of the student body. Admission by consultation with the director.

UNIVERSITY BANDS

The University bands furnish an opportunity for improvement for those who have previously played the various band instruments as well as an opportunity for those who have not played to learn band instruments. 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 and military band. The bands furnish music for the R. O. T. C. formations as well as for many other campus and civic events. A course in band directing is available to a limited number of the more proficient students.

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* Courses open to Freshmen.

OUTLINE OF COURSES LEADING TO THE DEGREE OF B. S. IN MUSIC

The object of this course in music is primarily to meet a Kentucky problem; that is, to develop music supervisors that can organize, teach and direct orchestra, bands and choruses. Besides this work the student of this course must major in either voice, piano or some symphonic orchestral instrument for the entire four years. Attention should be called, however, to the fact 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	Hrs. Rec.	Hrs. Lab.	Credits
Education 35	Classroom Management	3		3.
Music 21a	Sight Reading	2		1.5
Music 9a	Organization and Training of Musical Groups (Strings)	2		2.
	Applied Music	1	10	3.
Music 15a	English Composition	3		3.
English 1a	German, French or Spanish	3		3.
Mod. For. Lang.	Required of all	1		.3
Mat. Lect.	Gymnasium or Field Athletics		2	.7
Physical Ed. 1a	First Year Basic Course, Inf.	1	2	1.3
Mil. Sci. 1a (Men)				
	Total			16.5 or* 17.8

Second Semester

Hygiene 1	Personal and Community Health	2		1.
Music 21b	Sight Reading	2		1.5
Music 15b	Applied Music	1	10	3.
English 1b	English Composition	3		3.
Mod. For. Lang.	German, French or Spanish	3		3.
Physical Ed. 1b	Gymnasium		2	.7
Psychology 1	Elementary Psychology	3		3.
Mil. Sci. 1b (Men)	First Year Basic Course, Inf.	1	2	1.3
Music 41a (Women)	Methods and Materials for Orchestra and Band		2	1.
	Total			17.2 or 17.5

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Music 30a	Dictation and Ear Training	3		3.
Music 25a	Elementary Harmony	3		3.
Music 16a	Applied Music	1	10	3.
English 3a	Hist. of Eng. Lit.	3		3.
Mod. For. Lang. or Soc. Science	French, German, Spanish / Hist., Economics, Pol. Sc., Sociology	3		3.
Phys. Ed. 2a	Gymnasium		2	.7
Mil. Sci. 6a (Men)	Second Year Basic Course, (Inf.)	1	2	1.5
Education 44	Teaching the Social Studies in the Elementary School	3		3.
	Total			18.7 to 20.2

Second Semester

Music 30b	Dictation and Ear Training	3		3.
Music 25b	Elementary Harmony	3		3.
Music 16b	Applied Music	1	10	3.
English 3b	Hist. of Eng. Lit.	3		3.
Mod. For. Lang. or Soc. Science	French, German, Spanish / Hist., Economics, Pol. Sc., Sociology	3		3.
Physical Ed. 2b	Gymnasium		2	.7
Mil. Sci. 6b (Men)	Second Year Basic Course, (Inf.)	1	2	1.5
Psychology 7	Psychology of the Child	3		3.
	Total			18.7 to 20.2

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Music 40a or 39a	Orchestra or Glee Club		2	1.
Music 4a	Primary Methods	2		2.
Music 11a	Advanced Harmony	2		2.
Music 17a	Applied Music	1	10	3.
Music 19a	History and Appreciation of Music	3		3.
Education 101	School Organization	3		3.
Music 26	High School Methods	2		2.
Elective	Arts and Science Teaching Sequence in English, Rom. Lang. or Soc. Sc.	3		3.
	Total			18.

Second Semester

Music 40b or 39b	Orchestra or Glee Club		2	1.
Music 4b	Intermediate Methods	2		2.
Music 11b	Advanced Harmony	2		2.
Music 17b	Applied Music	1	10	3.
Music 9b	Org. and Train. of Music Groups (Brass)	2		2.
Elective	Arts and Science Teaching Sequence in English, Rom. Lang. or Soc. Sc.	3		3.
Education 147	Foundations of Secondary Educ.	3		3.
Music 19b	History and Appreciation	3		2.
	Total			18.

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Music 12a	Counterpoint and Composition	2		2.
Music 14a	Org. and Training of Music Groups	2		2.
Music 18a	Applied Music	1	10	3.
Education 105	Technique of Teaching	3		3.
Music 40c or 39c	Orchestra or Glee Club		2	1.
Education 177a	Practice Teaching	3		3.
Elective	Arts and Science Teaching Sequence in English, Romance Language or Social Science	3		3.
	Total			17.

Second Semester

Elective (Women)	Arts and Sciences Except Music			3.
Music 12b	Counterpoint and Composition	2		2.
Music 14b	Org. and Training of Music Groups	2		2.
Music 18b	Applied Music	1	10	3.
Elective	Arts and Science Teaching Sequence in English, Romance Language or Social Science	3		3.
Education 177b	Practice Teaching			3.
Music 40d or 39d	Orchestra or Glee Club		2	1.
	Total			17.

Minimum credits required for graduation 140.

Each candidate for this degree must be a member of one of the musical ensemble groups throughout his course.

If Military Science or Physical Education is not taken, equivalent credits must be gained in other subjects.

PHILOSOPHY

Professor Kuiper, Professor Terrell, Emeritus, Mr. Burk.

REQUIREMENTS FOR A MAJOR. Prerequisites: Junior standing; 6 credits of Philosophy. Required: Philosophy 35a, b. A minimum of 15 credits of advanced work in philosophy. Major students are required to enroll in tutorial courses during the senior year and to pass a final comprehensive examination in the department.

REQUIREMENTS IN FIELD OF CONCENTRATION. Literature, philosophy and the arts; Social Studies. Forty credits are required in one of the two above fields, including the major work, in courses not open to freshmen.

21—INTRODUCTION TO PHILOSOPHY. An elementary study of the principal types of philosophy, past and present.
3 *credits; both semesters* (Kuiper)

31—LOGIC. An introductory study of terms, propositions and their relations, deductive and inductive inference.
3 *credits; 1st semester* (Kuiper)

35a-b—TUTORIAL WORK IN PHILOSOPHY. Weekly conferences with major students; reports on assigned readings; readings in preparation for the comprehensive examination. Open only to senior majors in Philosophy.
1 *credit; each semester* (Kuiper)

51—ETHICS. A study of morality, its source, its laws, its relation to value theory, and its applications to some outstanding contemporary problems.
3 *credits; 2nd semester* (Kuiper)

Courses open only to Upper Division and Graduate Students

101a—HISTORY OF PHILOSOPHY. A survey of Greek and Medieval Philosophy.
3 *credits; 1st semester* (Kuiper)

101b—HISTORY OF PHILOSOPHY. A survey of Modern Philosophy from the Renaissance to contemporary times.
3 *credits; 2nd semester* (Kuiper)

107a—POLITICAL PHILOSOPHY.
3 *credits; 1st semester* (Kuiper)

107b—POLITICAL PHILOSOPHY.
3 *credits; 2nd semester* (Kuiper)

109a-d—INDEPENDENT WORK IN PHILOSOPHY.
3 *credits; both semesters* (Kuiper)

111a—CONTEMPORARY PHILOSOPHY. A study of contemporary realism, idealism, pragmatism, and intuitionism; with special reference to the writings of Betrand Russell, Samuel Alexander, F. H. Bradley, Bernard Bosanquet, William James, John Dewey and Henri Bergson.
Prerequisite: 2 *semesters of Philosophy.* 3 *credits; 1st semester* (Kuiper)

111b—CONTEMPORARY PHILOSOPHY. Continuation of 111a.
Prerequisite: 2 *semesters of Philosophy.* 3 *credits; 2nd semester* (Kuiper)

118—PLATO AND ARISTOTLE. A study in English of the chief dialogues of Plato, and of Aristotle's *Ethics, Politics,* and *Metaphysics.*
3 *credits; 1st semester* (Kuiper)

120—GREAT RELIGIONS OF THE WORLD. A study of the beliefs, ideals and social influences of five religions: Hinduism, Buddhism, Greek Religion, Judaism, and Christianity.
[NOT GIVEN 1934-35; OFFERED 1935-36] 3 *credits; 2nd semester* (Kuiper)

Courses open only to Graduate Students

201a—SEMINAR IN PHILOSOPHY.
1 *credit; 1st semester* (Kuiper)

201b—SEMINAR IN PHILOSOPHY.
1 *credit; 2nd semester* (Kuiper)

210a—TYPES OF LOGICAL THEORY. An intensive study of some of the outstanding contributions to logical theory, such as those of W. E. Johnson, Whitehead and Russell, or F. H. Bradley.
3 *credits; 1st semester* (Kuiper)

210b—TYPES OF LOGICAL THEORY. Continuation of 210a.
3 *credits; 2nd semester* (Kuiper)

PHYSICAL EDUCATION

Professor Stout, Associate Professor Potter, Assistant Professor Hansen, Mr. Shively, Miss Averill, Mr. Hackensmith

REQUIREMENTS FOR A MAJOR. Prerequisites. Psychology 3; Anatomy and Physiology 2a, 2b; English 10a, 10b. Required: P. E. 29, 128, 148, 124, 120. Minimum on Major, 15 credits.

REQUIREMENTS IN THE FIELD OF CONCENTRATION. Forty credits in the field of Biological Sciences, including the major work, in courses not open to freshmen.

Credits in applied Physical Education will not count toward the A. B. or B. S. degree. (P. E. 20 and 36 are applied courses.)

Upon entrance every student is given a physical examination by the Department of Health and Hygiene. The findings of the Department of Health and Hygiene are furnished the Department of Physical Education and modification in the form of exercise is made accordingly. Individuals with physical handicaps are assigned to corrective and remedial classes where special work is provided for each student. No student is allowed to participate in any form of competitive games or exercise unless he is physically capable of such activity as determined by his examination. The Department sponsors and encourages "competition for all," and through the program of Intramural Athletics, provision is made for every student, desirous of so doing, to take part in some form of athletic competition.

FOR MEN

A regulation uniform, consisting of sweat shirt, sweat trousers, white cotton undershirt and rubber-soled gym shoes, is required of all men students. The cost of this ranges from $2.50 to $5.00, according to the quality of suit purchased. A locker fee of $2.00 per year is charged each student and includes clean towel service and locker rental fee. Fifty cents of this amount is refunded to the student at the end of the year upon returning his towel to the Physical Education Department.

*1a—GYMNASIUM PRACTICE. Boxing, wrestling, gymnasium apparatus and tumbling, soccer football, volleyball and diamond ball are each offered for the entire semester. Students elect one of these activities to meet the course requirements. Two hours a week.
.7 *credit; 1st semester* (Hansen, Hackensmith, Shively)

*1b—GYMNASIUM PRACTICE. Students must elect one of the activities listed under 1a which they did not take in meeting the requirement. Two hours per week.
.7 *credit; 2nd semester* (Hansen, Hackensmith, Shively)

2a—ADVANCED GYMNASIUM PRACTICE. Individual Sports: Handball, fencing, golf and tennis, are each offered for the entire semester. Students elect one of these to meet the course requirement. Two hours per week. .7 *credit; 1st semester* (Hansen, Hackensmith, Potter, Shively)

2b—ADVANCED GYMNASIUM PRACTICE. Students must elect one of the activities listed under 2a which they did not take in meeting the 1a requirement. Two hours per week.
.7 *credit; 2nd semester* (Hansen, Hackensmith, Shively, Potter)

*11a—CORRECTIVE GYMNASTICS. Students are assigned to corrective work upon recommendation of the University physician. Special exercises to meet individual requirements are prescribed. Two hours a week.
.7 *credit; 1st semester* (Potter)

*11b—CORRECTIVE GYMNASTICS. Students are assigned to corrective work upon recommendation of the University physician. Special exercises to meet individual requirements are prescribed. Two hours a week.
.7 *credit; 2nd semester* (Potter)

12a—CORRECTIVE GYMNASTICS. Students are given advanced corrective and remedial exercises to meet individual requirements as prescribed by the University physician. Two hours a week.
Prerequisites: *P. E. 11a-b.* .7 *credit; 1st semester* (Potter)

12b—CORRECTIVE GYMNASTICS. Students are given advanced corrective and remedial exercises to meet individual requirements as prescribed by the University physician. Two hours a week.
Prerequisites: *P. E. 11a-b.* .7 *credit; 2nd semester* (Potter)

*20—CALISTHENICS AND GYMNASTIC STUNTS. Theory and practice of free exercise in gymnastics. Lecture and practice on the significance of formal gymnastics, order of exercise and the arrangement of lesson plans. Gymnastic stunts and apparatus work adaptable to the elementary and secondary school levels. 4 *credits; 1st semester* (Hackensmith)

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* Courses open to Freshmen.

*36—FOOTBALL AND BASKETBALL FUNDAMENTALS. Basic fundamentals of football and basketball are studied and practiced. The course includes practice and theory of the games of football and basketball. Individual instruction and practice in the fundamental duties of each playing position. Emphasis is placed on blocking, tackling, punting and passing, in football, and dribbling, shooting, passing, etc., in basketball.
4 *credits; 2nd semester* (Shively)

50—TRACK AND FIELD ATHLETICS. Instruction and practice in starting, sprinting, distance running, hurdling, high- and broad-jumping, pole-vaulting, and all track and field athletic events. Eight hours a week.
4 *credits; 2nd semester* (Shively)

29—(Men) THEORY AND PRACTICE OF ORGANIZED PLAY. Lectures on children's play, industrial, rural, school and adult recreation. Playground administration, conduct of community centers, park recreation, stunts, plays for outings, practice of group games, combative contests, mass athletics and physical efficiency tests. Five hours a week.
Prerequisite: *P. E.* 20. 3 *credits; 1st semester* (Hansen)

70—PRINCIPLES OF ATHLETIC TRAINING AND FIRST AID. Diagnosis and treatment of injuries common to athletic contests. Theory and practice in massage, taping and bandaging. Two hours a week.
Prerequisites: *A. & P. 2a and 2b.* 1 *credit; 1st semester* (Shively)

Open to Upper Division and Graduate Students

†128—SCHOOL PROGRAMS OF PHYSICAL EDUCATION. Lectures, discussions and preparation of papers covering the objectives of physical education; the educational, health and recreational significances; the content of the school program; types of activities for grade school, high school, and college.
Prerequisites: *P. E.* 20 *and P. E.* 29. 3 *credits; 1st semester* (Potter)

†120—PHYSICAL DIAGNOSIS AND MEDICAL GYMNASTICS. Theory and practice in physical and health examinations. Study of exercises and physio-therapeutic measures applicable to weak feet, heart disturbances, constipation, hernia, blood pressure, paralysis, obesity, mal-nutrition, post-operation conditions and bone and joint abnormalities. Three hours recitation.
Prerequisites: *P. E.* 20; *Anatomy & Physiology, 2a & 2b.* 3 *credits; 1st semester* (Potter)

142—ADVANCED FOOTBALL. Lecture and recitation on the theory of football. Special emphasis is placed on generalship, signal systems, scouting and conditioning of players. Football is studied from the coach's viewpoint. Two hours a week.
Prerequisite: *P. E.* 36 *or two years college football.* 2 *credits; 1st semester* (Shively)

†148—(Men) ORGANIZATION AND ADMINISTRATION OF ATHLETICS. Special emphasis on equipment, care of the gymnasium plant, executive and administrative duties of an athletic director, establishment and enforcement of eligibility rules, making of schedules, selecting a coach, and publicity are studied. Three hours recitation and lecture a week.
Prerequisites: 12 *hours of P. E. and Senior standing.* 3 *credits; 1st semester* (Shively)

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*Courses open to Freshmen.
†Courses open to men and women students.

†124—HISTORY AND PHILOSOPHY OF PHYSICAL EDUCATION. History of Physical Education from the ancient Greeks and Romans, through the Middle Ages and the Modern Era. The philosophy of the German, Swedish and French systems is outlined. Lectures and recitations on present day athletics and physical training in the United States and foreign countries. Two hours recitation a week.

2 *credits; 2nd semester* (Hackensmith)

†125—ADMINISTRATION AND ORGANIZATION OF MUNICIPAL AND COMMUNITY RECREATION. A study of the principles and procedures in organization methods and administrative policies for supervised children's, youths' and adults' recreation. Observation and study of organized recreational projects in local municipalities and communities. Three hours recitation and lecture a week.

Prerequisites: *P. E.* 20, *or sufficient experience in organized recreational work.* 3 *credits; 2nd semester* (Shively)

Open to Graduate Students Only

201—RESEARCH IN PHYSICAL EDUCATION. Theory and practice in research and statistical procedures as applied to the field and problems pertaining to athletics, recreation, intramural and other phases of Physical Education. Lectures and study on the technique and procedure of research. Special problems and the preparation of papers dealing with studies and surveys of Physical Education. Five hours recitation a week.

5 *credits; 2nd semester* (Potter)

FOR WOMEN

A regulation uniform is required of all women students. The cost of the uniform ranges from $2.50 to $5.00, according to the quality of the suit purchased. A locker rent fee of $.50 per year is charged each student and includes locker rental and service for the school year. $.25 of this amount is refunded to the student at the end of the year upon returning the padlock to the Physical Education Department.

*1a—GYMNASIUM PRACTICE. General exercise and recreation. Two hours a week. .7 *credit; 1st semester* (Stout)

*1b—GYMNASIUM PRACTICE. General exercise and recreation. Two hours a week. .7 *credit; 2nd semester* (Stout)

2a—ADVANCED GYMNASIUM PRACTICE. Advanced exercises and recreation. Two hours a week.

Prerequisites: 1*a-b*. .7 *credit; 1st semester* (Averill)

2b—ADVANCED GYMNASIUM PRACTICE. Advanced exercise and recreation. Two hours a week.

Prerequisites: 1*a-b*. .7 *credit; 2nd semester* (Averill)

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* Courses open to Freshmen.

*11a—CORRECTIVE GYMNASTICS. Students are assigned to corrective work upon recommendation of the University physician. Special exercises to meet individual requirements are prescribed. Two hours a week. .7 *credit; 2nd semester* (Averill and Stout)

*11b—CORRECTIVE GYMNASTICS. Students are given advanced corrective and remedial exercises to meet individual requirements as prescribed by the University physician. Two hours a week.
.7 *credit; 2nd semester* (Averill and Stout)

12a—CORRECTIVE GYMNASTICS. Students are given advanced corrective and remedial exercises to meet individual requirements as prescribed by the University physician. Two hours a week.
Prerequisites: 11*a-b*. .7 *credit; 1st semester* (Averill and Stout)

12b—CORRECTIVE GYMNASTICS. Students are given advanced corrective and remedial exercises to meet individual requirements as prescribed by the University physician. Two hours a week.
Prerequisites: 11*a-b*. .7 *credit; 2nd semester* (Averill and Stout)

14—ELEMENTARY PLAYS AND GAMES. Pedagogy of organized play and games for the elementary grades. Theory and practice in group games, combative contests and individual athletics. Four hours a week.
Prerequisite: *Sophomore standing.* 2 *credits* (Averill)

16a—TRAINING FOR LEADERSHIP IN WOMEN'S ATHLETICS. Theory and practice of sports and athletic events for women. Lectures and practice in program construction of athletic events adaptable to girls in the elementary and secondary schools. Practice in the game fundamentals and discussions of rule interpretations of all athletic events adaptable to women. Four hours a week. 2 *credits; 1st semester* (Averill)

16b—TRAINING FOR LEADERSHIP IN WOMEN'S ATHLETICS. A continuation of P. E. 16a. Four hours a week.
2 *credits; 2nd semester* (Averill)

29—THEORY AND PRACTICE OF ORGANIZED PLAY. Same content as P. E. 29 for men with special reference and application of subject material to activities for girls and women. 3 *credits*

NOTE.—For advanced courses, see Physical Education for Men.

PHYSICS

Professor Webb, Professor Pence, Emeritus, Professor Koppius, Assistant Professor Hahn, Assistant Professor Pardue, Assistant Professor Warburton, Assistant Professor Toddo, Mr. Ramsey, Mr. Sullivan, Instrument Maker Mr. Schneider*

REQUIREMENTS FOR A MAJOR. Prerequisites: Physics 2a, 2b; Mathematics 17, 18, 19. Required: Mathematics 20a, 20b. Physics 15a, b, c, 125c. A minimum of 15 credits of advanced work in Physics. Students majoring in Physics are required to enroll in tutorial courses during the junior and senior years and to pass a final comprehensive examination in the department.

* Courses open to Freshmen.

REQUIREMENTS IN THE FIELD OF CONCENTRATION. Forty credits in the Field of Physical Sciences, including the major work, in courses not open to freshmen.

*1a—GENERAL PHYSICS. A general elementary course covering Mechanics, Wave Motion and Heat. Lectures and recitations four hours; laboratory two hours a week. 5 *credits; both semesters* (Staff)

*1b—GENERAL PHYSICS. Continuation of Physics 1a, covering Magnetism and Electricity, Sound and Light. Lectures and recitations four hours; laboratory two hours a week.
Prerequisite: *Physics* 1*a*. 5 *credits; both semesters* (Staff)

2a—GENERAL COLLEGE PHYSICS. An advanced general course, covering Mechanics, Wave Motion and Heat. Recitations three hours, laboratory four hours a week.
Prerequisites: *Elementary Physics, Mathematics* 17, 18. 5 *credits; both semesters* (Staff)

2b—GENERAL COLLEGE PHYSICS. An advanced general course, covering Magnetism, Electricity, Sound and Light. Recitations three hours, laboratory four hours a week.
Prerequisite: *Physics* 2*a*. 5 *credits; both semesters* (Staff)

PHYSICS 15a, b, c—TUTORIAL WORK IN PHYSICS. Weekly conferences with major students, reports on assigned readings in preparation for the comprehensive examination. Open only to junior and senior majors in physics. 1 *credit; both semesters* (Pardue)

*51a—INTRODUCTION TO PHYSICS. A lecture demonstration course covering the subjects of Mechanics, Wave Motion and Heat.
3 *credits; 1st semester* (Webb, Ramsay)

*51b—INTRODUCTION TO PHYSICS. A lecture demonstration course covering the subjects of Magnetism and Electricity, Sound and Light.
3 *credits; 2nd semester* (Webb, Ramsay)

Courses open only to Upper Division and Graduate Students

101—THEORY OF HEAT. A lecture and experimental course covering the fundamental principles of Heat. Opportunity is offered to study the gas thermometer, resistance thermometer, radiation pyrometers, calibration of thermocouples, determination of vapor pressures and densities, coefficients of viscosity, freezing and boiling points, latent and specific heats, heats of combustion, thermal conductivities, etc. Lectures and recitations, three hours; laboratory four hours a week.
Prerequisites: *Physics* 2*b*; *Mathematics* 20*b*. 5 *credits; 1st semester* (Koppius)

102a—ELECTRICITY AND MAGNETISM. A course developing the fundamental theory of electricity and magnetism, emphasizing the physical concepts of electrical quantities and applying these to practical problems. The laboratory work is designed both to emphasize the principles covered and to give the student experience in the careful use of electrical measuring instruments. Lectures and recitations, three hours; laboratory, four hours a week.
Prerequisites: *Physics* 2*b*; *Mathematics* 20*b*. 5 *credits; 1st semester* (Warburton)

* On leave 1934-1935.

103—THEORY OF LIGHT. A lecture and experimental course covering the general theory of reflection, refraction, diffraction, interference and polarization. Lectures and recitations, three hours; laboratory, four hours a week.
Prerequisites: *Physics 2b; Mathematics 20b.* 5 *credits; 1st semester* (Webb, Ramsay)

104—THEORETICAL MECHANICS. This course begins with a careful statement of the fundamental laws of mechanics and the conditions under which they hold. Defined quantities are introduced logically. The work is usually based on some standard text but will be supplemented by lectures. The student is expected to solve a representative list of problems.
Prerequisites: *Physics 2b; Mathematics 20b.* 5 *credits; 2nd semester* (Pardue)

113—RADIO COMMUNICATION. A discussion of the theory of transmission and reception of wireless waves. The theory of the detector and amplification properties of the vacuum tube. Lectures and recitations two hours; laboratory two hours a week.
Prerequisites: *Physics 2b; Mathematics 20b.* 3 *credits; 2nd semester* (Hahn)

116a—PHYSICAL MANIPULATIONS. A course for those who wish to acquire a technique in various physical manipulations, as for example, glass blowing, and the preparation and use of materials used in physical experiments, photography, etc. Laboratory two hours a week.
Prerequisites: 10 *credits of Physics or Chemistry.* 1 *credit; 1st semester* (Webb, Koppius, Schneider)

116b—PHYSICAL MANIPULATIONS. A continuation of Physics 116a. Laboratory two hours a week.
Prerequisites: *See Physics 116a.* 1 *credit; 2nd semester* (Webb, Koppius, Schneider)

119—PRINCIPLES OF X-RAYS. A basic course dealing with the design and operation of x-ray equipment, the methods of crystal analysis and wave length measurements, x-ray spectroscopy; the mathematical development of the formulae of absorption, scattering, polarization and refraction, Compton effect and related phenomena, review of related articles in scientific periodicals.
Prerequisites: *Physics 2b; Mathematics 20b.* 3 *credits; 1st semester* (Hahn)

120—X-RAY TECHNIQUE. An introduction course in x-ray technique the first half of the course dealing with the design and operation of x-ray equipment, the physical basis of voltage, current time and distance factors, intensifying screens, dark room procedure, etc. The second half is devoted to practice in the radiography of the extremeties, chest, head, teeth, etc.
Prerequisites: *Physics 1a and 1b.* 2 *credits, 2nd semester* (Hahn, assisted by Hamilton, Department of Hygiene)

122—X-RAY ANALYSIS OF CRYSTALS. A lecture course presenting the various methods of analyzing the crystalline structure of matter by the use of x-rays. For students of chemistry, geology and physics.
Prerequisite: *Physics 119.* 3 *credits; 2nd semester* (Hahn)

125a, b, c, d—INDEPENDENT WORK IN PHYSICS. 3 *credits* (Staff)

Courses open only to Graduate Students

Courses from the following list will be given as a demand for them justifies; Spectroscopy, Theory of Measurements, Physical Optics, Kinetic Theory of Matter, Dynamics of a Particle and Wave Motion, Conduction of Electricity Through Gases, Electro-Magnetic Theory of Light, Transient Electric and Vacuum Tube Phenomena, Quantum Theory, Theoretical Physics, Thermodynamics, X-Rays and their applications to Physical Problems, Relativity, Electro-Dynamics.

220a—SEMINAR. A weekly meeting of the staff and advanced students for presentation and discussion of recent development in physics as reported in the current literature and of work in progress in the department. Credit is given only to those who satisfactorily present papers.
Prerequisite: *Graduate standing.* 1 *credit; 1st semester* (Staff)

220b—SEMINAR. A continuation of Physics 220a.
Prerequisite: *Graduate standing.* 1 *credit; 2nd semester* (Staff)

226a-b—RESEARCH. 3 *credits* (Staff)
For the description of these graduate courses see the Graduate School Bulletin.

227a-b—RESEARCH. 5 *credits* (Staff)

SUGGESTED OUTLINE OF A COURSE IN THE PHYSICAL SCIENCES WITH PHYSICS AS A MAJOR

FRESHMAN YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
English 1a	English Composition	3		3.0
Physics 1a	Elementary Physics	4	2	5.0
Mathematics 17	College Algebra	3		3.0
Mathematics 18	Trigonometry	2		2.0
Chemistry 2a	General Inorganic Chemistry	2	4	4.0
Military Science 1a	First Year Basic Course	1	2	1.3
Physical Ed. 1a	Gymnasium or Field Athletics		2	.7
		15	10	19.0

Second Semester

English 1b	English Composition	3		3.0
Physics 1b	Elementary Physics	4	2	5.0
Mathematics 19	Analytics	3		3.0
Chemistry 2b	General Inorganic Chemistry	2	4	4.0
Military Sci. 1b	First Year Basic Course	1	2	1.3
Physical Ed. 1b	Gymnasium or Field Athletics		2	.7
Hygiene 1	Personal and Comm. Health	1		1.0
		14	10	18.0

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Physics 2a	General College Physics	3	4	5.0
Mathematics 20a	Differential Calculus	4		4.0
Military Sci. 6a	Second Year Basic Course	1	2	1.5
Slide Rule		1		1.0
Chemistry 4	Qualitative Analysis	1	6	4.0
Physical Ed. 2a	Gymnasium or Field Athletics		2	.7
Social Sci. Elective		3		3.0
		13	14	19.2

Second Semester

Physics 2b	General College Physics	3	4	5.0
Mathematics 20b	Integral Calculus	4		4.0
Mil. Sci. 6b	Second Year Basic Course	1	2	1.5
Chemistry 8	Quantitative Analysis	1	8	5.0
Physical Ed. 2b	Gymnasium or Field Athletics		2	.7
Social Sci. Elective		3		3.0
		12	16	19.2

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Physics ( )	(100 Course)			5.0
Mathematics 102	Vector Analysis	3		3.0
German 1a	Elementary German	3		3.0
Biological Science				4.0
Elective		3		3.0
Physics 15a	Tutorial Work	1		1.0
				19.0

Second Semester

Physics ( )	(100 Course)			5.0
Mathematics 105a	Differential Equations	3		3.0
German 1b	Elementary German	3		3.0
Biological Science				4.0
Elective				3.0
Physics 15b	Tutorial Work	1		1.0
				19.0

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Physics ( )	100 Courses			8.0
German 2a	Intermediate German	3		3.0
Elective				6.0
Physics 15c	Tutorial Work			1.0
				18.0

Second Semester

Physics ( )	100 Courses			8.0
German 2b	Intermediate German	3		3.0
Mathematics ( )	100 Courses	3		3.0
Physics 125c		3		3.0
				17.0

Note.—Students wishing to prepare for the teaching of Physics are recommended to make the following substitutions in the above outline.

Sophomore year, replace Social Science Electives by Psychology 2a, and Education 16. Junior and Senior years, elect Education 101, Education 122, and Education 155.

This course conforms with the recommendations of the revised school code of Kentucky, and in addition gives the student a well-rounded foundation for continuing his work toward an advanced degree in Physics.

POLITICAL SCIENCE

President McVey, Professor Vandenbosch, Professor Jones,† Associate Professor Manning, Assistant Professor Blanding, Assistant Professor Cole, Assistant Professor Trimble.

The courses and facilities of the Department of Political Science are designed to serve a number of purposes. Among these purposes are: (1) To provide orientation and training in the problems of citizenship for undergraduate students. (2) To provide further special background for students majoring in journalism or preparing for admission to professional courses such as law. (3) To train social science teachers for the primary and secondary schools. (4) To provide special training for students preparing for governmental or quasi-governmental work conducted by non-governmental agencies. (5) To provide research training in the problems of government.

Requirements for a Major. Prerequisites: Political Science 15 and Political Science 51. Required: A minimum of 15 credits in Political Science, including Political Science 155a and 155b, or 159a and

† Died December 29, 1934.

159b. All majors must take Political Science 190a and 190b and pass a comprehensive examination in the general field of political science.

REQUIREMENTS IN THE FIELD OF CONCENTRATION. Forty credits in Field of Social Science, including the major work, in courses not open to freshmen.

FOR FRESHMEN AND SOPHOMORES

*15—PROBLEMS OF CITIZENSHIP. Public opinion, the newspaper, advertising, the modern economic system, labor problems, unemployment, agriculture, conservation and the race problem.
3 *credits; both semesters* (Staff)

*51—AMERICAN GOVERNMENT. A survey course in the structure and operation of the Federal Government.
3 *credits; both semesters* (Staff)

52—MUNICIPAL GOVERNMENT. An introductory course in the study of the structure and functions of modern city governments.
3 *credits; 1st semester* (Manning)

80—STATE GOVERNMENT. A study of the forms and functions of governments in operation in the states of the United States.
3 *credits; both semesters* (Manning)

Courses open only to Upper Division and Graduate Students‡

178a-d—INDEPENDENT WORK. (Honors Course.) Consent of the department required for admission. 1 *credit; both semesters* (Staff)

180a-d—INDEPENDENT WORK. (Honors Course.) Consent of the department required for admission. 3 *credits; both semesters* (Staff)

190a—SEMINAR IN POLITICAL SCIENCE. Open to major students only. 1 *credit; 1st semester* (Vandenbosch)

190b—SEMINAR IN POLITICAL SCIENCE. A continuation of 190a.
1 *credit; 1st semester* (Vandenbosch)

I. POLITICAL PARTIES AND PUBLIC OPINION

170—POLITICAL PARTIES AND PUBLIC OPINION. An analysis of public opinion and pressure groups; a survey of the history, organization methods and functions of political parties in the United States; first-hand studies of the individual's patricipation in government. (Given every year.)
3 *credits; 1st semester* (Cole)

RELATED COURSES IN OTHER DEPARTMENTS

Psychology 104. Social Psychology.
Sociology 15. Social Control.

II. PUBLIC ADMINISTRATION

153—MUNICIPAL ADMINISTRATION. A more or less detailed study of the administrative problems of the city. Emphasis is placed on personnel, financial, welfare and public works administration.
3 *credits; 2nd semester* (Manning)
[GIVEN 1934-35; NOT OFFERED 1935-36]

* Courses open to Freshmen.
‡ Prerequisite for all courses numbered 100 or above; Pol. Sci. 51.

154—COUNTY GOVERNMENT. A study of the background, the legal status, types and administrative activities of the American County. Special attention is given to the relationship of state and the county.
3 *credits; 1st semester and summer* (Manning)
[NOT GIVEN 1934-35; OFFERED 1935-36]

158—REGULATION OF PUBLIC UTILITIES. Control of utilities through franchises and commissions, valuation, theory and law of valuations, rate structure, interstate problems.
Prerequisites: *P. S.* 51, *and one of following*: *Hist.* 119*b*, 190*a or* 190*b*. 3 *credits; 1st semester* (Manning)
[GIVEN 1934-35; NOT OFFERED 1935-36]

172—KENTUCKY GOVERNMENT AND CONSTITUTION. An intensive study of government and administration in Kentucky. The course is intended primarily for teachers of civics in the secondary schools, and for teachers of government in colleges.
[NOT GIVEN 1934-35; OFFERED 1935-36] 3 *credits; summer* (Manning)

174—PUBLIC WELFARE ADMINISTRATION. An intensive study of public welfare agencies of the state and local units, with emphasis on the problems of relief, rehabilitation, public and private control, and unified administration.
[OFFERED 1935-36.] 3 *credits; 2nd semester* (Manning)

RELATED COURSES IN OTHER DEPARTMENTS

Economics 102. Labor Problems.
Economics 104. Government Finance.
Economics 124. State and Local Taxation.
Economics 130. Labor Legislation.
Law 153. Taxation.
Law 167. Administrative Law.
Psychology 112. Personnel Administration.
Sociology 107. Community Welfare Work.
Sociology 112. Community Organization.

III. THEORY

171a—EARLY POLITICAL THEORY. The political theories of Plato, Aristotle, Roman Political Thought, Thomas Acquinas, Dante, Machiavelli, Bodin, Grotius, More, Bacon, Harrington, Filmer, Hobbes, Locke, Spinoza, Montesquieu, Rousseau.
[NOT GIVEN 1934-35; OFFERED 1935-36] 3 *credits; 1st semester* (Trimble)

171b—MODERN POLITICAL THEORY. The theories of the American and French Revolutions, the English Utilitarians, Democratic Political Theory, Socialism, Fascism, Anarchism, Syndicalism, Guild Socialism, Communism.
3 *credits; 2nd semester* (Trimble)

RELATED COURSES IN OTHER DEPARTMENTS

Philosophy 111a and 111b. Contemporary Philosophy.
Sociology 15. Social Control.
Sociology 105. Social Systems.

IV. PUBLIC LAW

155a—COMPARATIVE GOVERNMENT. A study of the governments of England, Ireland and the British self-governing dominions.
[GIVEN EVERY YEAR] 3 *credits; 1st semester* (Trimble)

155b—COMPARATIVE GOVERNMENT. A study of the government of Europe including France and Switzerland and the dictatorship of Italy, Germany and Russia.
[GIVEN EVERY YEAR] 3 *credits; 2nd semester* (Trimble)

159a—AMERICAN CONSTITUTIONAL DEVELOPMENT, 1787-1868. Chronological survey of the making of the constitution and its interpretation through principal statutes and judicial decisions; some emphasis upon the economic and social interests which influenced this growth.
[GIVEN EVERY YEAR] 3 *credits; 1st semester* (Cole)

159b—AMERICAN CONSTITUTIONAL DEVELOPMENT. From the adoption of the Civil War Amendments to the present time. Congressional policies embodied in social-economic legislation; doctrines developed by the Supreme Court. Analysis and criticism of chief cases on "due process," congressional powers and changes in the federal systems.
[GIVEN EVERY YEAR] 3 *credits; 2nd semester* (Cole)

RELATED COURSES IN OTHER DEPARTMENTS

History 131a-131b. English Constitutional History.
Law 149. Municipal Corporations.
Law 161a-161b. Constitutional Law I and II.

V. INTERNATIONAL LAW AND DIPLOMACY

101—LATIN AMERICAN RELATIONS. The relations between the United States and the Latin American countries, the Monroe Doctrine, Pan-Americanism, Pan-Hispanism, Latin America and the League of Nations.
[OFFERED 1934-35] 3 *credits; 2nd semester* (Blanding)

150—INTERNATIONAL LAW. Sources and sanctions of international law, recognition, intervention, jurisdiction, nationality, protection of citizens abroad, diplomatic intercourse of states, the making, termination and interpretation of treaties, the treatment of aliens and international claims.
[GIVEN EVERY YEAR] 3 *credits; 2nd semester* (McVey or Vandenbosch)

164—INTERNATIONAL RELATIONS AND AMERICAN FOREIGN SERVICE. Nationalism, self-determination, plebiscites, the protection of minorities, the modern state system, the mandates system, the League of Nations, the World Court, the limitation of armaments, international legislation, control of American foreign policy, the state department, American diplomatic and consular service. 3 *credits; 1st semester* (Vandenbosch)

165—WORLD POLITICS. A study of diplomatic history before and after the war with particular stress on the importance of alliances, imperialism, nationalism, militarism, and secret diplomacy. The latter part of the course deals with the development of international conferences, the League of Nations, and the recent foreign policy of the important nations.
[GIVEN 1934-35; NOT OFFERED 1935-36.]
3 *credits; 2nd semester* (Blanding)

168—GOVERNMENTS AND POLITICS OF EASTERN ASIA. An introductory study of the political institutions of China, Japan, the Philippines, the Dutch East Indies and India. Constitutional principles, governmental organization, the party systems, current political issues and contemporary problems of international relations.
[OFFERED 1936-37] 3 *credits; 1st semester* (Vandenbosch)

RELATED COURSES IN OTHER DEPARTMENTS

Economics 127. International Economic Policies.
History 100a and 100b. The Diplomacy and Foreign Policy of the United States.
History 190a and 190b. The Far East.
History 119b. The Nineteenth Century.
History 120. The Twentieth Century.
Law 164. Conflict of Laws.

Courses open only to Graduate Students

203—PUBLIC ADMINISTRATION. An advanced course in the field of governmental administration, with major emphasis on the theory and general practices of administration, the problems of administrative organization and reorganization, personnel administration.
[OFFERED EVERY YEAR.] 3 *credits; 1st semester* (Manning)

204—INTERNATIONAL ORGANIZATION AND THE LEAGUE OF NATIONS. Social and economic factors leading to the establishment of international administrative organs, the Mandates System, the International Labor Organization, the League of Nations.
[OFFERED EVERY YEAR.] 3 *credits; 2nd semester* (Vandenbosch)

206—SPECIAL PROBLEMS IN PUBLIC ADMINISTRATION. A research course in selected problems of public administration. The problems will be selected in accordance with the needs and desires of students registering for the course. 3 *credits* (Manning)

210—SUPREME COURT AND POLITICS. Intensive study of the federal judiciary in the political and economic order. Factors in decision-making; personnel of the court; relations to other departments and processes of the national government and to the states; trends in the principle of judicial review.
[OFFERED EVERY YEAR.] 3 *credits; 2nd semester* (Cole)

213—FEDERAL CENTRALIZATION. A study of the shifting of power and control from the states to the federal government as a result of the economic and social development of the country and the resulting alteration of our constitutional system. Special attention will be given to the development of such provisions of the constitution as the commerce clause, the taxing clause and of grants-in-aid and the more important measures of the New Deal.
[OFFERED EVERY YEAR.] 3 *credits; 1st semester* (Trimble)

SUGGESTED COURSES IN PUBLIC SERVICE

For persons interested in preparing for the various branches of government service, the following courses of study are suggested. These courses lead to the Degree of Bachelor of Arts, with a major in Public Service.

During the freshman and sophomore years the student should meet the lower division group requirements for graduation. Optional credits should be selected from introductory courses in the social sciences. In the upper division years the student should elect a minimum of 48 credits from fields related to his major interest. The following courses of study are suggested.

CONSULAR AND DIPLOMATIC SERVICE:

Comparative Government, International Law, Development and Expansion of the Constitution, International Organization, Transportation, Public Finance, Statistics, International Economic Policies, Diplomacy and the Foreign Policy of the United States, American History, Modern European History, Contracts, Conflict of Law.

FINANCIAL ADMINISTRATION:

Municipal Government, Municipal Administration, County Government, Public Administration, Accounting, Statistics, Public Finance, Business Law, Personnel Management.

PUBLIC MANAGEMENT:

Municipal Government, Municipal Administration, State Government, County Government, Public Administration, Personnel Management, Statistics, Accounting, Public Finance, State and Local Taxation, Legislative Drafting, Social Systems, Development and Expansion of the Constitution, Highway Location, Construction and Maintenance, Streets and Pavements, Water Supply and Water Works, Sewers and Sewage Disposal.

PUBLIC RECORDING:

State Government, Municipal Government, Municipal Administration, Accounting, Statistics, Public Finance, Money and Banking, State and Local Taxation, Public Administration, Contracts.

PUBLIC WELFARE ADMINISTRATION:

Social Psychology, Social Systems, Ethics, Criminology, Individual Development, Psychology of the Child, Human Measurements, Abnormal Psychology, Social Dependents, Social Pathology, Immigration, Community Welfare Work, Community Survey, Community Organization, State Government, Municipal Government, County Government, Statistics, Public Finance, Administration of Justice.

PUBLIC WORKS ADMINISTRATION:

Highway Location, Construction and Maintenance, Street and Pavements, Road Materials, Asphalt Laboratory, Water Supply and Water Works, Sewers and Sewage Disposal, Sewer Design, Contracts,

State Government, Municipal Administration, Public Utilities, State and Local Taxation, Public Finance, Accounting.

PUBLIC SAFETY ADMINISTRATION:

Criminology, Abnormal Psychology, Personnel Management, Administration of Justice, Constitutional Law, Public Administration, Social Pathology, State Government, Municipal Administration, County Government, Accounting.

PSYCHOLOGY

Professor Miner, Associate Professor White, Assistant Professor Asher, Assistant Professor Beaumont, Assistant Professor Dimmick, Mr. Newbury, Mrs. Ratliff.

PSYCHOLOGICAL SERVICE. The Department offers to students and to persons sent by the schools or the social agencies an opportunity to be examined free of charge as to their intellectual capacity, special abilities and talents, educational attainments, commercial and trade skill. Individual examinations for vocational guidance are also made. Prolonged studies of personal adjustment are undertaken when time permits. Parents and business men are invited to make use of this service. Appointments may be made by telephone.

CHILD GUIDANCE SERVICE. In cooperation with the Junior League of Lexington a special child guidance service has been established at the department with Dr. G. B. Dimmick as director. The Juvenile Court, public schools, Child Welfare and Family Welfare Societies have definitely availed themselves of this service, which is an important adjunct to the class instruction and research work in the field of personality development for both normal and maladjusted children.

PREPARATION FOR VOCATIONS. The Department has planned coordinate curricula which it recommends to students who desire to prepare for positions in the Departments of Psychology in Junior Colleges, Teachers Colleges, or Universities, and also for guidance and personnel work in schools, industry or business, mental hygiene, clinical and personal adjustment work, and for the position of Registrar.

REQUIREMENTS FOR A MAJOR. Prerequisites: Psychology 2a and 2b, or Psychology 10, or the equivalent. Required: Fifteen additional credits earned after the Sophomore year and elected among other courses in Psychology. Twenty-five other credits in Psychology or in allied fields of either the Biological or the Social Sciences in courses

not open to freshmen. These courses are to be coordinated toward definite objectives with the approval of the Department.

Students in Education are advised to take Psychology 3, 7, 12, 104, 114, 108a, 108b, 109a, 109b, 113, 215, 217, 219, 221; in Commerce, Psychology 5, 112, 104, 3, 108a, 108b; in the pre-medical course, Psychology 3, 7, 108a, 108b, 109a, 109b, 114; in the pre-law course, Psychology 3, 104, 114, 108a, 108b, 119; in social work, Psychology 3, 7, 104, 108a, 108b, 109a, 109b, 114, 119.

*1—ELEMENTARY PSYCHOLOGY. A beginning course which presents the fundamental problems of human behavior in the simplest possible manner. The course is intended only for freshmen and sophomores entering the college the second semester who cannot postpone their first course until the next year, and for students of music.

3 *credits; either semester* (Beaumont)

*2a—GENERAL PSYCHOLOGY. A first course running through the year, intended to train the student to analyze and explain the main human activities so that he will better understand the behavior of himself and others. Two hours recitation and a double-period in the laboratory with illustrative experiments for interpretation each week.

3 *credits; 1st semester* (All the Staff)

*2b—GENERAL PSYCHOLOGY. A continuation of 2a.

Prerequisite: *Phychology 2a.* 3 *credits; 2nd semester* (All the Staff)

10—INTRODUCTION TO PSYCHOLOGY. A first course which presents the scentific approach to the fundamental problems of explaining the activities of individuals. Open only to juniors and seniors, who are advised, however, to take 2a and 2b if possible.

3 *credits; 1st and 2nd semesters* (Newbury)

3—INDIVIDUAL DEVELOPMENT. Individual differences in relation to personality. The influence of heredity, environment, training, race and sex upon the development of individuals.

Prerequisite: *An introductory course in psychology.* 3 *credits; 2nd semester* (Asher)

7—PSYCHOLOGY OF THE CHILD. The development of behavior from birth to maturity. The problems of conduct arising during infancy, childhood and adolescence in relation to child care and training.

Prerequisite: *An introductory course in psychology.* 3 *credits; either semester* (Asher)

5—PSYCHOLOGY OF ADVERTISING AND SELLING. General principles of psychology applied to these fields as a fundamental basis for preparing advertisements and plans for selling. The bearing of research methods and the social significance of advertising. Given in cooperation with student publications, newspapers and local concerns which afford opportunities for some practice.

Prerequisites: *2a and 2b.* 3 *credits; 1st semester* (Miner)

* Courses open to Freshmen.

9—GROUP THINKING. The procedures of progressive thinking by groups. One hour of supervised group discussion with two hours preparation on topics of vital interest to the students. Admission with the consent of the instructor. Not open to freshmen.

1 *credit; either semester* (Newbury)

11—FIELDS OF PSYCHOLOGY. A survey of the significant contributions in the following fields of psychology: Social, abnormal, experimental, genetic, animal, tests of abilities, personnel administration, and current systems of psychology. Each instructor will meet the class for about ten periods.

Prerequisite: An introductory course in psychology.

3 *credits; 1st semester* (Asher, Beaumont, Dimmick, Miner, Newbury, White)

12—GUIDANCE. The course introduces the problems of guidance as they have been developed nationally, centering attention on the child and youth who are constantly face to face with the adjustments to home, school, occupations and life. It relates the problems of individual differences to these practical situations and offers suggestions as to methods of guidance which do not require extended technical knowledge. Open to students who have had a beginning course in psychology.

[NOT GIVEN IN 1935-36.] 3 *credits; 1st semester* (Miner)

Courses open to Upper Division and Graduate Students who have taken Psychology 2a and 2b, 10 or the Equivalent

104—SOCIAL PSYCHOLOGY. Description and explanation of social phenomena in terms of the original and acquired reaction systems of the individual. So-called types are characterized in respect to the social problems they afford. Topics given special consideration: Crowds, mob behavior, propaganda, and nationalism. 3 *credits; 1st semester* (Dimmick)

107—PSYCHOLOGICAL INTERPRETATION (of the unusual). Unusual human activities and experiences, including hypnotism, thought transference, spirit communications, psycho-therapy, and other sub-conscious phenomena are considered from the point of view of scientific evidence. The psychology of personality and genius. An attempt is made to understand the conditions for creative work in literature, art and science.

3 *credits; 2nd semester* (Miner)

114—ABNORMAL PSYCHOLOGY. An intensive course on disturbed conduct and thinking studied from both the theoretical and the practical points of view. The major psychoses and neuroses are given special consideration. Some opportunity for clinical observation is provided.

3 *credits; 2nd semester* (Dimmick)

108a—HUMAN MEASUREMENTS. The history and significance of tests of intelligence including an analysis and evaluation of individual and group tests of general capacity for intellectual performances.

2 *credits; 1st semester* (Dimmick)

108b—HUMAN MEASUREMENTS. The history and interpretation of tests of special aptitudes and of special skills and attainments, including a criticism of the available tests for these special abilities.

2 *credits; 2nd semester* (Dimmick)

109a—DIAGNOSIS OF DEVELOPMENT. Provides for acquisition of technique in the administration of well-known individual tests and scales which funrish criteria of the levels of intellectual and emotional development. Emphasis is placed upon the Stanford Revision and the Herring Revision of the Binet-Simon Scale.

Prerequisite: *Psychology* 108*a* or *an equivalent.* 2 *credits; either semester* (Dimmick)

109b—DIAGNOSIS OF DEVELOPMENT. A continuation of 109a in respect to aims. Training is given in the administration of standardized performance tests and scales and in the interpretation of the data yielded by these.

Prerequisite: *Psychology* 108*a* or *an equivalent.* 2 *credits; either semester* (Dimmick)

102a—GENETIC PSYCHOLOGY. Influence of hereditary factors in the development of human behavior, with a critical survey of the problem and evidence in connection with certain psychological traits such as musical and other special abilities, intelligence, insanity, and interests.

2 *credits; 1st semester* (Newbury)

116—COMPARATIVE PSYCHOLOGY. Two hours of lectures, two hours of laboratory a week. A survey of the field of animal behavior with special reference to experimental technique. Opportunity for research experience in an animal laboratory. Topics include: Problems of heredity and environment, activity, instinct, motivation, learning, sensory discrimination and personality in sub-human species. Relationships to human problems indicated. 3 *credits; 2nd semester* (Newbury)

110—EXPERIMENTAL PSYCHOLOGY. Experimental techniques and their application to present psychological problems. The student is encouraged to select his own problems. Examples of such problems are: Effect of changed surroundings on learning; peripheral retinal sensitivity; binocular fusion. One hour lecture; four hours laboratory.

3 *credits; 2nd semester* (White)

113—PSYCHOLOGY OF LEARNING. An experimental study of the learning process together with an analysis of the types of learning. One hour lecture; four hours laboratory. 3 *credits; 1st semester* (White)

112—PERSONNEL ADMINISTRATION. The functions of personnel work in business and industry. The selection and placement of employees, their training, supervision and motivation; the scientific study of work and fatigue. Given in alternate years with 221.

3 *credits; 1st semester* (Beaumont)

121—STUDENT PERSONNEL. The methods of dealing with student personnel problems in college and high school, including the problems of selection, classification, sectioning of classes, grading, personal adjustment, motivation, guidance and vocational placement. The functions of a personnel officer. 3 *credits; 2nd semester* (Beaumont)

120a-d—INDEPENDENT WORK IN PSYCHOLOGY. Designed for advanced students and graduates who undertake minor research problems to be conducted in regular consultation with the instructor. A minimum of six hours time per week is required.

2 *credits; both semesters* (Miner and others)

Courses open only to Graduate Students

201a—SEMINAR IN PSYCHOLOGY. One two-hour discussion each week of research under way by graduate students and members of the staff. 1 *credit; 1st semester* (Miner and Staff)

201b, c, etc.—SEMINAR IN PSYCHOLOGY. Continuation of 201a. These numbers are provided for registration in succeeding semesters. 1 *credit; either semester* (Miner and the Staff)

203a—PROBLEMS IN PSYCHOLOGY. Shorter research problems are registered under this number. A minimum of nine hours per week is required in consultation with the instructor. 2 *credits; 1st semester* (Miner and others)

203b, c, etc.—PROBLEMS IN PSYCHOLOGY. Continuation of researches. These numbers are provided for registration in subsequent semesters. 2 *credits; either semester* (Miner and others)

210a—RESEARCH IN PSYCHOLOGY. Research or thesis work may be registered under this number. A minimum of nine hours per week is required on research conducted in consultation with the instructor. 3 *credits; 1st semester* (Miner and others)

210b, c, etc.—RESEARCH IN PSYCHOLOGY. Continuation of research. These numbers are provided for registration in succeeding semesters. 3 *credits; either semester* (Miner and others)

211—MENTAL WORK AND FATIGUE. A laboratory course. Four hours. Devoted to experiments and one hour discussion. Prerequisites, an advanced course in experimental psychology and elementary statistics or their equivalent. 3 *credits; 1st semester* (White)

212—THE EMOTIONS. A laboratory course. Four hours devoted to experiments and one hour discussion. Prerequisites, an advanced course in experimental psychology and elementary statistics or their equivalent. 3 *credits; 1st semester* (White)

[GIVEN IN 1933-34; NOT OFFERED IN 1934-35.]

213—THE OBSERVATION PROCESS. A laboratory course. Four hours devoted to experiments and one hour discussion. Prerequisites, an advanced course in experimental psychology and elementary statistics or their equivalent. 3 *credits; 2nd semester* (White)

215—MEASUREMENTS OF HUMAN RELATIONSHIPS. An advanced course which considers the treatment and interpretation of human measurements. The course deals with the computation and interpretation of simple, partial and multiple correlations, regressions, equations, and reliability of measures. 3 *credits; 2nd semester* (Asher)

217—PSYCHOLOGY OF LANGUAGE. An experimental course dealing with both written and spoken language. The development and physical basis of language, together with its function in thought processes. The main emphasis will be placed on the experimental phases of the subject. Two hours lecture and two hours laboratory. 3 *credits; 2nd semester* (White)

[GIVEN IN 1933-34; NOT GIVEN IN 1934-35]

218—SYSTEMATIC PSYCHOLOGY. An historical and critical study of fundamental concepts and current schools of psychology with a view to their evaluation. 3 *credits; 1st semester* (Miner)

219—CLINICAL PSYCHOLOGY. Two hours lecture and discussion. A survey of clinical work on the diagnosis and adjustment of problem children and adults. The course gives a background for social, mental hygiene, and clinical work. 2 *credits; 2nd semester* (Dimmick)

ROMANCE LANGUAGES AND LITERATURES

Professor Zembrod, Emeritus, Assistant Professors Horsfield, Server, Holmes, Schick.

REQUIREMENTS FOR A MAJOR. Prerequisites: Romance Languages 1a-b, 2a-b, 5a-b, 6a-b or 8a-b. Required: A minimum of 15 credits of advanced work in Romance Languages.

REQUIREMENTS IN THE FIELD OF CONCENTRATION. Forty credits in the Field of Literature, Philosophy and the Arts, including the major work, in courses not open to freshmen.

FRENCH

*1a—ELEMENTARY FRENCH. 3 *credits; both semesters* (Server, Holmes, Schick)

*1b—ELEMENTARY FRENCH.
Prerequisites: 1a *or one year High School French.* 3 *credits; both semesters* (Server, Holmes, Shick)

*2a—INTERMEDIATE FRENCH.
Prerequisites: 1a-b *or two years High School French.* 3 *credits; both semesters* (Horsfield, Server, Holmes, Shick)

*2b—INTERMEDIATE FRENCH. Continuation of 2a. 3 *credits; both semesters* (Horsfield, Server, Holmes, Schick)

6a—FRENCH NOVEL AND DRAMA.
Prerequisites: *Two years of College French or its equivalent.* 3 *credits; both semesters* (Horsfield)

6b—FRENCH NOVEL AND DRAMA. Continuation of 6a. 3 *credits; both semesters* (Horsfield)

8a—FRENCH PHONETICS. A scientific study of French sounds based on the International System of Phonetic Symbols.
Prerequisite: *Two years College.* 3 *credits; 1st semester* (Schick)
[GIVEN 1934-35; OFFERED 1935-36.]

* Courses open to Freshmen.

8b—FRENCH PHONETICS. Continuation of 8a.
Prerequisite: 8a. 3 *credits; 2nd semester* (Schick)
[GIVEN 1934-35; OFFERED 1935-36.]

16a—CIVILIZATION OF FRANCE, SPAIN, SPANISH-AMERICA AND ITALY. Lectures and correlated readings. Open to all students. Required of Romance Language majors.
[OFFERED 1935-36.] 3 *credits; 1st semester* (The Staff)

16b—CIVILIZATION OF FRANCE, SPAIN, SPANISH-AMERICA AND ITALY. Continuation of 16a.
[OFFERED 1935-36.] 3 *credits; 1st semester* (The Staff)

Courses open only to Upper Division and Graduate Students

109a—FRENCH LITERATURE OF THE XIX CENTURY.
[GIVEN 1934-35; NOT OFFERED 1935-36.] 3 *credits; 1st semester*

109b—FRENCH LITERATURE OF THE XIX CENTURY.
[GIVEN 1934-35; NOT OFFERED 1935-36.] 3 *credits; 2nd semester*

110a—FRENCH LITERATURE OF THE XVII CENTURY.
[GIVEN 1934-35; NOT OFFERED 1935-36.] 3 *credits; 1st semester*

110b—FRENCH LITERATURE OF THE XVII CENTURY.
[GIVEN 1934-35; NOT OFFERED 1935-36] 3 *credits; 2nd semester*

113a—ADVANCED GRAMMAR, SYNTAX, COMPOSITION.
Prerequisite: *Graduate standing.* 3 *credits; 1st semester*
[NOT GIVEN 1934-35; OFFERED 1935-36.]

113b—ADVANCED GRAMMAR, SYNTAX, COMPOSITION. Continuation of 113a.
[NOT GIVEN 1934-35; OFFERED 1935-36] 3 *credits; 2nd semester*

114a-d—INDEPENDENT WORK IN ROMANCE LANGUAGES.
3 *credits; both semesters* (Horsfield, Server, Schick)
[GIVEN 1934-35; OFFERED 1935-36]

115a—FRENCH LITERATURE OF THE XVIII CENTURY.
[OFFERED 1935-36] 3 *credits; 1st semester* (Holmes)

115b—FRENCH LITERATURE OF THE XVIII CENTURY. Continuation of 115a.
[OFFERED 1935-36] 3 *credits; 2nd semester* (Holmes)

116—FRENCH LITERATURE OF THE XX CENTURY.
[OFFERED 1935-36] 3 *credits; either semester* (Horsfield)

SPANISH

*5a—ELEMENTARY SPANISH.
3 *credits; both semesters* (Server, Holmes, Horsfield, Schick)
[GIVEN 1933-34; OFFERED 1934-35.]

*5b—ELEMENTARY SPANISH.
Prerequisite: 5a *or one year* 3 *credits; both semesters*
High School Spanish (Server, Holmes, Horsfield, Schick)
[GIVEN 1933-34; OFFERED 1934-35.]

*7a—INTERMEDIATE SPANISH.
Prerequisites: 5*a-b or two years High School Spanish.* 3 *credits; both semesters* (Server, Holmes)
[GIVEN 1933-34; OFFERED 1934-35.]

*7b—INTERMEDIATE SPANISH.
3 *credits; 2nd semester* (Server, Holmes)
[GIVEN 1933-34; OFFERED 1934-35.]

9a—SPANISH NOVEL AND DRAMA.
Prerequisites: 7*a-b, or four years High School Spanish.* 3 *credits; 1st semester* (Server)
[GIVEN 1933-34; OFFERED 1934-35.]

9b—SPANISH NOVEL AND DRAMA. Continuation of 9a.
3 *credits; 2nd semester* (Server)

Courses open only to Upper Division and Graduate Students

104a—SPANISH LITERATURE OF THE XVII CENTURY.
Prerequisites: 7*a-b, or four years Spanish or equivalent.* 3 *credits; 1st semester* (Server)
[NOT GIVEN 1934-35; OFFERED 1935-36]

104b—SPANISH LITERATURE OF THE XVII CENTURY.
[NOT GIVEN 1934-35; OFFERED 1935-36] 3 *credits; 2nd semester* (Server)

112a—SPANISH LITERATURE OF THE XIX CENTURY.
Prerequisites: 3 *years College Spanish or equivalent.* 3 *credits; 1st semester* (Server)
[GIVEN 1934-35; NOT OFFERED 1935-36]

112b—SPANISH LITERATURE OF THE XIX CENTURY.
[GIVEN 1934-35; NOT OFFERED 1935-36] 3 *credits; 2nd semester* (Server)

ITALIAN

4a—ELEMENTARY ITALIAN. For Juniors and Seniors.
Prerequisites: *French* 1*a-b*, 2*a-b*; *or Spanish* 5*a-b*, 7*a-b*. 3 *credits; 1st semester*

4b—ELEMENTARY ITALIAN. 3 *credits; 2nd semester*

SOCIOLOGY

Professor Best, Assistant Professor Montgomery, Miss Taylor, Miss Buckingham.

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

* Courses open to Freshmen.

social work, whether as a professional career, or with the expectation to do volunteer work or to participate in the direction of some social service agency.

REQUIREMENTS FOR A MAJOR. Prerequisites: Sociology 1a, 1b. Required: A minimum of 15 credits of advanced work in Sociology.

REQUIREMENTS IN THE FIELD OF CONCENTRATION. Credits to the number of 40 in the field of social sciences, including the major work, in courses not open to freshmen.

*1a—PRINCIPLES OF SOCIOLOGY. An introductory course dealing with the fundamental principles and aims of sociology through a consideration of social origins, social evolution, social progress, and social institutions.
[NOT OPEN TO SENIORS.] 3 *credits; both semesters* (Best)

*1b—PRINCIPLES OF SOCIOLOGY. An introductory course involving an examination of certain practical, concrete social problems of the present day, such as the family, child welfare, poverty, crime, racial issues, recreational values, community organization, urban and rural trends, housing conditions, population movements, social implications of industrial development, etc.
[NOT OPEN TO SENIORS.] 3 *credits; both semesters* (Montgomery)

Courses open only to Upper Division and Graduate Students

101—SOCIAL DEPENDENCE. A study of poverty and social dependence and of measures for their alleviation and reduction, with special attention to present private and public activities in this direction.
[GIVEN 1934-35; OFFERED 1935-36.] 3 *credits; 1st semester*

102—SOCIAL PATHOLOGY. A study of illness and accidents, mortality rates, mental and physical impairment or defectiveness, social insurance, and hospitals and other institutions and agencies for caring for those in need, from a sociological point of view.
[GIVEN 1934-35; OFFERED 1935-36.] 3 *credits; 2nd semester* (Montgomery)

103—CRIMINOLOGY. A study of general conditions as to crime and delinquency, of measures of punishment and reform of offenders, of criminal procedure and its possible reform, and of measures for the prevention of crime.
[GIVEN 1934-35; OFFERED 1935-36.] 3 *credits; 1st semester* (Best)

105—SOCIAL SYSTEMS. A study of the different social systems propounded or attempted in human society from Plato's Republic down to the present.
[GIVEN 1934-35; OFFERED 1935-36.] 3 *credits; 1st semester* (Montgomery)

106—AMERICAN IMMIGRATION. A study of immigrant races and peoples in the United States and of proposed national policies for dealing with the matter.
[GIVEN 1934-35; OFFERED 1935-36.] 3 *credits; 2nd semester* (Best)

* Courses open to Freshmen.

107—COMMUNITY WELFARE WORK. A course involving an inspection of the several public welfare agencies and institutions of the community, and of certain ones of the State, after a preliminary theoretical consideration.
Prerequisite: *Sociology* 101, 102, *or* 103. 3 *credits; 2nd semester*
[GIVEN 1934-35; OFFERED 1935-36.]

109—THE FAMILY. A study of the family both in its historical aspects and in connection with modern life.
[GIVEN 1934-35; OFFERED 1935-36.] 2 *credits; 2nd semester* (Montgomery)

110—CHILD WELFARE. A study of present social attitudes toward the child and of methods and agencies for its care and protection.
[GIVEN 1934-35; OFFERED 1935-36.] 3 *credits; 1st semester* (Montgomery)

112—COMMUNITY ORGANIZATION. A study of the theory and of the practical results of organization among individuals and among different agencies in the community for the advancement of its life.
[GIVEN 1934-35; NOT OFFERED 1935-36.] 3 *credits; 1st semester* ( )

113—INTRODUCTION TO SOCIAL CASE WORK. A more or less technical training course in social case work, open only to properly authorized students.
[GIVEN 1934-35; OFFERED 1935-36.] 3 *credits; 1st semester* (Taylor)

114a, b—INDEPENDENT WORK IN SOCIOLOGY. Study of some special subject by duly authorized students.
[GIVEN 1934-35; OFFERED 1935-36.] 1 *credit; either semester* (Staff)

116—RURAL SOCIAL ECONOMY. A study of rural life and its tendencies at the present day.
[GIVEN 1934-35; OFFERED 1935-36.] 3 *credits; 1st semester* (Montgomery)

117—ADVANCED CASE WORK. Continuation of 113.
[OFFERED 1935-36] 3 *credits; 2nd semester* (Taylor)

118—URBAN SOCIAL ECONOMY. A study of the problems of the city.
[GIVEN 1934-35; OFFERED 1935-36.] 2 *credits; 2nd semester* (Montgomery)

120a—SUPERVISED FIELD WORK. A field or "laboratory" course in connection with an accredited social agency, and under the guidance of a qualified member of its staff (150 hours).
[GIVEN 1934-35; OFFERED 1935-36.] 3 *credits; 1st semester* (Buckingham)

120b—SUPERVISED FIELD WORK. Continuation of 120a. (150 hours.)
[OFFERED 1935-36.] 3 *credits; 2nd semester* (Buckingham)

121—POPULATION MOVEMENTS. A study of movements and trends in population, and with respect to race, age, birth-rates, etc.
[GIVEN 1934-35; OFFERED 1935-36.] 2 *credits; 2nd semester* (Montgomery)

122—THEORY OF SOCIAL WORK. A study of the theoretical aspects of social work; its philosophy, objectives, and methods; its history and development; its present professional status; and its place in modern programs of human progress.
[OFFERED 1935-36] 2 *credits; 2nd semester* ( )

Courses open only to Graduate Students

201a—SOCIOLOGY SEMINAR. Consideration mainly of methods of research and of current sociological literature.
[GIVEN 1934-35; OFFERED 1935-36.] 1 *credit; 1st semester* (Best)

201b—SOCIOLOGY SEMINAR. Continuation of 201a.
[GIVEN 1934-35; OFFERED 1935-36.] 1 *credit; 2nd semester* (Best, Staff)

ZOOLOGY

Professor Funkhouser, Professor Allen, Associate Professor Brauer, Mr. Taylor, Mr. Tucker

REQUIREMENTS FOR A MAJOR. Prerequisites: Zoology 1a and 1b. Required: Zoology 7a and 7b (or 157a and 157b), 106, 108a and 108b, 114a, 114b; passing a comprehensive examination which will correlate the several zoological sub-sciences.

REQUIREMENTS IN FIELD OF CONCENTRATION. Forty credits in the Field of Biological Sciences, including the major work, in courses not open to freshmen.

*1a—GENERAL ZOOLOGY. A general course in zoology consisting of lectures, recitations and laboratory work. The first semester is devoted primarily to the study of invertebrates based on the dissection of types.
[GIVEN EVERY YEAR.] 4 *credits; 1st semester* (Funkhouser and others)

*1b—GENERAL ZOOLOGY. A continuation of Course 1a. The second semester is devoted primarily to a study of the vertebrates.
[GIVEN EVERY YEAR.] 4 *credits; 2nd semester* (Funkhouser and others)

3a—GENERAL ENTOMOLOGY. A beginning course in the study of insects. Gross anatomy, morphology and life histories of representatives of the most important orders.
[OFFERED 1934-35.] 3 *credits; 1st semester* (Allen)

3b—GENERAL ENTOMOLOGY. A continuation of Course 3a. Taxonomy and entomotaxy are given special attention during the second semester.
[OFFERED 1934-35.] 3 *credits; 2nd semester* (Allen)

7a—COMPARATIVE ANATOMY. Invertebrates. An intensive study of the anatomy of representatives of all the important phyla, classes, orders and a few families with gross studies of many genera. Life histories of important forms. Comparative organology and physiology of higher phyla.
Prerequisites: *Zoology 1a, b.* 4 *credits; 1st semester* (Allen)
[GIVEN EVERY YEAR.]

7b—COMPARATIVE ANATOMY. Vertebrates. Systematic consideration of classes, orders and some families of Vertebrata. Comparative organology and physiology.
Prerequisites: *Zoology 1a, b.* 4 *credits; 2nd semester* (Allen)
[GIVEN EVERY YEAR.]

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* Courses open to Freshmen.

§—ANIMAL ECOLOGY AND FIELD BIOLOGY. A general course in ecology with special reference to the zoological aspects of the subject.
[OFFERED 1934-35.] 3 *credits; 2nd semester* (Allen)

*10—OUTLINES OF ZOOLOGY. An elementary course in zoology intended primarily for students of agriculture. Special attention is given to animals of economic importance.
[NOT GIVEN IN 1935-36.] 3 *credits; 2nd semester* (Brauer)

11—NATURE STUDY. A course in general nature study intended primarily for teachers who desire preparation for presenting the subject to elementary students. Intimate studies of local plants and animals based largely on field work.
[OFFERED 1934-35.] 3 *credits; summer only* (Allen)

25—GENERAL ANIMAL BIOLOGY. A study of the animal and its relation to its biotic and its physical environments. Animal communities, succession, behavior, and behavior patterns. Suited for teachers of general science, and biology in secondary schools, and for students of agriculture. Recitation 2 hours, and laboratory 1 hour.
3 *credits; 2nd semester* (Brauer)

Courses open only to Upper Division and Graduate Students

101a—HISTOLOGY. Histology of the tissues. A course in the technique of the preparation of animal tissues for microscopic study. Practice in imbedding, staining, sectioning, mounting and identification of tissues.
Prerequsites: *Zoology* 1*a-b*. 3 *credits; 1st semester* (Brauer)
[GIVEN EVERY YEAR.]

101b—HISTOLOGY. Histology of the organs. A continuation of Course 101a in which the studies are based on the organs and special attention given to pathology.
Prerequisite: *Zoology* 101*a*. 3 *credits; 2nd semester* (Brauer)
[GIVEN EVERY YEAR.]

102—ORNITHOLOGY. A study of the life histories, anatomy and physiology of birds with particular reference to the habits, songs, nests, migration and economic importance of our native birds.
[GIVEN EVERY YEAR.] 3 *credits; 2nd semester* (Funkhouser)

105—MEDICAL ENTOMOLOGY. General parasitology; insects and other forms affecting the health and comfort of man. Identification, anatomy, life history, and etiology of representative species. Methods of control and treatment. For pre-medical and other students interested in public health.
Prerequisites: *Zoology* 1*a, b*. 3 *credits; 1st semester* (Allen)
[OFFERED 1935-36.]

106—EMBRYOLOGY. A general course in ontogeny. Studies in maturation, fertilization, cleavage, organogenesis and anomalies of development with laboratory work based on the chick and pig.
Prerequisites: *Zoology* 1*a-b*; 101*a*. 4 *credits; 2nd semester* (Brauer)
[GIVEN EVERY YEAR.]

108a—PRINCIPLES OF ZOOLOGY. (Evolution.) An advanced lecture course open only to juniors, seniors and graduate students on fundamental principles of biology. The first semester is devoted primarily to the study of organic evolution. Three times a week.
[GIVEN EVERY YEAR.] 2 *credits; 1st semester* (Funkhouser)

* Courses open to Freshmen.

108b—PRINCIPLES OF ZOOLOGY. (Heredity.) A continuation of Course 108a. The second semester is devoted to the study of heredity, eugenics and animal instincts. Three times a week.
[GIVEN EVERY YEAR.] 2 *credits; 2nd semester* (Funkhouser)

110a to d—INDEPENDENT WORK. Special problems for individual students who are capable of pursuing independent investigations.
For Zoology majors. 3 *credits; both semesters*
[GIVEN EVERY YEAR.] (Funkhouser, Allen, Brauer)

112—ICHTHYOLOGY. Taxonomy of fishes with life-histories and biology of types. Fish structure and physiology. Fish culture and economic ichthyology; care of fishes, aquaria, etc.
Prerequisite: *Zoology 1a-b.* 3 *credits; 1st semester* (Allen)
[OFFERED 1935-36.]

114a—ZOOLOGICAL SEMINAR. Presentation of results of research; reports on technical papers in current literature; book reviews; news notes; discussions of recent developments in zoology; reports on meetings of scientific societies. Juniors majoring in Zoology are advised, and Seniors required, to attend in order to receive tutorial instruction preparatory to the final comprehensive examination.
For students majoring in biological subjects. 1 *credit; 1st semester*
[GIVEN EVERY YEAR.] (Staff)

114b—ZOOLOGICAL SEMINAR. A continuation of Course 114a. For students in biological subjects.
[GIVEN EVERY YEAR.] 1 *credit; 2nd semester* (Staff)

157a—INVERTEBRATE ANATOMY. An advanced course on the comparative anatomy of invertebrate animals with special attention paid to phylogeny, organology and taxonomy.
[GIVEN EVERY YEAR.] 4 *credits; 1st semester* (Allen)

157b—VERTEBRATE ANATOMY. A continuation of Course 157a devoted to the Chordata laboratory techniques in vertebrate anatomy.
Prerequisite: *Zoology 157a.* 4 *credits; 2nd semester* (Allen)
[GIVEN EVERY YEAR.]

160—ONTOGENY. Lectures on theories and philosophies of organismic development. Reports on the literature.
Prerequisites: *Zoology 1a and b, and at least one course numbered above 100.* 2 *credits; 1st semester* (Brauer)
[GIVEN EVERY YEAR.]

Courses open only to Graduate Students

201a—HERPETOLOGY. Systematic, taxonomic and phylogenetic studies of the Reptilia.
Prerequisites: *Zoology 7a-b; 108a; 114a.* 3 *credits; 1st semester*
[NOT OFFERED 1934-35.] (Funkhouser)

201b—HERPETOLOGY. A continuation of Course 201a with special reference to economic forms.
Prerequisite: *Zoology 201a.* 3 *credits; 2nd semester* (Funkhouser)
[NOT OFFERED 1934-35.]

202a—SYSTEMATIC ENTOMOLOGY. Research work on special

groups of insects requiring advanced study in the literature of the subject and designed for students who desire to specialize in entomology.
Prerequisites: *Zoology* 3*a-b*; 7*a*; 108*a*. 4 *credits*; 1*st semester* (Funkhouser)
[OFFERED 1935-36.]

202b—SYSTEMATIC ENTOMOLOGY. A continuation of Course 202a. In the second semester special attention is paid to entomotaxy and the bibliography of the group studied.
Prerequisite: *Zoology* 202*a*. 4 *credits*; 2*nd semester* (Funkhouser)
[OFFERED 1935-36.]

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 in agriculture and home economics).
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.

These credits are classified as follows:

Prescribed subjects, non-agriculture	42.0 credits
Prescribed subjects, agriculture	35.3 credits
Electives required in agriculture	27.0 credits
Free electives	35.0 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 29. The free electives may be in agriculture. It will thus be seen that there is opportunity to take work in agriculture amounting to 97.3 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.

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,

Upon recommendation of the department in which a student is majoring, the Dean may permit work in the field of the student's major interest to be substituted for farm experience.

OUTLINE OF COURSES REQUIRED FOR THE DEGREE B. S. IN AGRICULTURE

FRESHMAN YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Animal Industry 21	Market Classes and Grades of Livestock		4	2.
*Animal Industry 22	Farm Poultry Production	3	2	2.
**Animal Indus. 23	Elements of Dairying	3	2	2.
Agronomy 11	Farm Crops	2	2	3.
Botany 7a	General Morphology	3		3.
English 1a	English Composition	3		3.
Military Science 1a	First Year Basic Course, Infantry	1	2	1.3
Physical Educ. 1a	Gym. or Field Athletics		2	.7
Freshman Assembly		1		.3
				17.3

* First half of semester.
** Second half of semester.

Second Semester

Animal Industry 17	Breeds of Livestock	3		3.
*Chemistry 1a	General Inorganic Chemistry	3	4	5.
Botany 7b	General Morphology	3		3.
English 1b	English Composition	3		3.
Military Science 1b	First Year Basic Course, Infantry	1	2	1.3
Physical Educ. 1b	Gym. or Field Athletics		2	.7
				16.

* Chemistry 1a may be taken in the first semester.

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Chemistry 1b	General Inorganic Chemistry	3	4	5.
Economics 1	Principles of Economics	3		3.
Horticulture 1	General Horticulture	3	2	4.
Farm Engin. 10	Mechanics of the Farmstead	2	2	3.
Military Science 6a	Second Year Basic Course, Inf.	2	1	1.5
				16.5

Second Semester

Bacteriology 52	Principles of Bacteriology	2	4	4.
Geology 3	Elements of Geology	2	2	3.
Farm Economics 4	Agricultural Economics	2	2	3.
Animal Industry 20	Principles of Animal Nutrition	3		3.
Agronomy 1	Soils	3	2	4.
Military Science 6b	Second Year Basic Course, Inf.	2	1	1.5
				18.5

Students who have not had a year of physics in high school will be required to take a six-credit course in college physics.

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Farm Economics 113	Farm Management	3		3.
Markets and Rural Finance 108	Marketing	3		3.
*Electives				12.
				18.

Second Semester

Education 16	Educational Psychology	3		3.
Zoology 25	General Animal Biology	2	2	3.
Electives				12.
				18.

* Students planning to teach under the Smith-Hughes Act are required to take Fm. Eng. 8. Agr. 115 and 105 are required of students who have had the equivalent of Agr. 1 and 11 in other institutions. Students entering as juniors take Agr. 105 instead of Agr. 11.

SENIOR YEAR

The work in the senior year is all elective. The normal load is 18 credit hours each semester.

ADVISORY SYSTEM

Upon entering the College of Agriculture each student is assigned a faculty adviser. It is the function of this faculty member to serve as a friendly personal adviser to the student. During or before the second semester of the sophomore year each student may select a major field of study. When the major field of study is selected, the student is assigned an adviser in the major field.

MAJOR WORK

The curriculum as outlined is for the student who desires a general course. A student desiring to prepare for a major field of work may postpone certain required courses or make substitutions for them if these changes are recommended by the student's adviser and the head of the major department, and are approved in the manner prescribed by the University rules.

The College of Agriculture offers opportunity for major work in the following fields: Agricultural entomology, animal husbandry, animal pathology, crops, dairying, extension, farm economics, farm engineering, high school teaching, general horticulture, ornamental horticulture, markets and rural finance, plant pathology, poultry and soils.

Electives Suggested for Students Who are Preparing to be County Agricultural Agents.

Junior and Senior Years.

First Semester: Agricultural Entomology 10; Agronomy 113, 115; Animal Industry 19, 102, 106; English 7a; Farm Economics 120; Farm Engineering 8; Horticulture 102, 103; Journalism 1a; Markets and Rural Finance 111.

Second Semester: Agricultural Entomology 102; Agricultural Extension 1; Agronomy 23, 105; Animal Industry 13, 105, 107, 125, 134; Animal Pathology 116; Farm Engineering 11; Horticulture 110.

TRAINING FOR TEACHERS OF VOCATIONAL 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.

Electives Suggested for Students Who are Preparing to Teach Vocational Agriculture.

Junior and Senior Years.

First Semester: *Agricultural Education 181; Agronomy 113, 115; Animal Industry 19, 102, 106; Farm Economics 120; *Farm Engineering 8; Horticulture 105; Journalism 1a; Markets and Rural Finance 111.

Second Semester: *Agricultural Education 181; Agricultural Entomology 102; Agronomy 23, 105; Animal Industry 13, 105, 107, 125, 134; Animal Pathology 116; Education 122; Horticulture 110, 113.

Starred courses are required of students planning to teach vocational agriculture. The student should take as many of the unstarred courses as his time and ability permit. Students who become teachers are required to take Agricultural Education 179, Determining Course-Content in Vocational Agriculture, which is offered the first two-and-one-half weeks of the summer school. Including Ag. Ed. 179, the student must present at least 15 credits in education.

OUTLINE OF COURSES REQUIRED FOR MAJOR IN ORNAMENTAL HORTICULTURE

FRESHMAN YEAR

First Semester

Course	Subject	Credits
Art 61a	Drawing	3
English 1a	English Composition	3
Botany 7a	General Morphology	3
Mathematics 18 or Mathematics 17	Trigonometry Algebra	2 or 3
Physical Educ. 1a	Gym. or Field Athletics	.7
Military Sci. 1a	First Year Basic Course, Infantry	1.3
Elective		3 or 2
Freshman Assembly		.3
		16.3

Second Semester

Chemistry 1a	General Inorganic	5
English 1b	English Composition	3
Botany 7b	General Morphology	3
Art 61b	Drawing	3
Physical Edu. 1b	Gym. or Field Athletics	.7
Military Sci. 1b	First Year Basic Course, Infantry	1.3
		16.0

SOPHOMORE YEAR

First Semester

Course	Subject	Credits
Horticulture 1	General Horticulture	4
Chemistry 1b	General Inorganic	5
Economics 1	Principles of Economics	3
Art 63a	Intermediate Drawing	3
Military Sci. 6a	Second Year Basic Course, Infantry	1.5
		16.5

Second Semester

Agronomy 1	Soils	4
Agronomy 23	Plant Pathology	4
Geology 3	Elements of Geology	3
Art 62b	Design	2
Fm. Eng. 11	Land Meas., Drainage and Terracing	3
Military Sci. 6b	Second Year Basic Course, Infantry	1.5
		17.5

JUNIOR AND SENIOR YEARS

Prescribed Agriculture

First Semester

Course	Subject	Credits
Ag. Ent. 10	Agricultural Entomology	3
Ag. Ent. 103	Economic Entomology	3
Agronomy 115	Soil Management	3
Horticulture 115a	Special Problems	3

Second Semester

Horticulture 113	Landscape Gardening	3
Horticulture 114	Landscape Gardening	3
Horticulture 115b	Special Problems	3
Horticulture 117	Elements of Floriculture	3
Horticulture 118	Flower Garden and Home Grounds	3

Electives in Agriculture 20 credits

Free electives 32 credits

The 20 credits required as agricultural electives plus free electives may be applied as a minor in the following fields of study:

Animal Industry
Agronomy
Agricultural Entomology
Agricultural Engineering
Farm Economics
Markets and Rural Finance

Total credits required 139.3. Students who have not had a year of physics in high school will be required to take a six-credit course in college physics.

A MODIFIED CURRICULUM FOR TWO YEARS OF COLLEGE WORK

A modification of the first two years of the curriculum is suggested for the student who cannot complete the four years of consecutive college work leading to a degree. Under this modified plan subjects may be elected to provide general or special information concerning any phase of agriculture. Upon the completion of 68.3 credits with a standing of 1 the student will be awarded a certificate.*

REQUIRED WORK

FIRST YEAR

First Semester	Crs.	Second Semester	Crs.
English 1a	3	English 1b	3
Botany 7a	3	Military Science 1b	1.3
Military Science 1a	1.3	Physical Education 1b	.7
Physical Education 1a	.7	Electives	12
Assembly 1	.3		
Electives	9		
Total	17.3	Total	17

SECOND YEAR

First Semester	Crs.	Second Semester	Crs.
Military Science 6a	1.5	Military Science 6b	1.5
Economics 1	3	Electives	16
Chemistry 1a	5		
Electives	8		
Total	17.5	Total	17.5

The following is a list of electives from which the faculty advises the student generally to select his electives, but he may elect any course in the University for which he has the prerequisites.

* At least 29.3 of these credits must be in agriculture.

LIST OF ELECTIVES

FIRST YEAR

First Semester	Crs.	Second Semester	Crs.
Agri. Entomology 10	3	Agri. Entomolgy 11	3
Agronomy 11	3	Animal Industry 13	2
Animal Industry 4	1	Animal Industry 17	3
Animal Industry 21	2	Animal Industry 19	3
Animal Industry 22	2	Botany 7b	3
Animal Industry 23	2	Chemistry 1a or 1b	5
Chemistry 1a	5	Farm Enigneering 9	3
Farm Engineering 8	4	Biological Science	3-4
Horticulture 1	4	Physical Science	3-5
Biological Science	3-4	Social Science	3
Physical Science	3-5		
Social Science	3		

SECOND YEAR*

First Semester	Crs.	Second Semester	Crs.
Animal Industry 25	1	Agronomy 1	4
Farm Engineering 10	3	Agronomy 14	2
Farm Butchering and Curing Meats	4	Agronomy 23	4
Farm Management	3	Animal Industry 20	3
Marketing	3	Animal Industry 35	2
Rural Community Prob.	3	Bacteriology 52	4
Biological Science	3-4	Chemistry 1b	5
Physical Science	3-5	Farm Economics 4	3
Social Science	3	Farm Economics 10	3
		Farm Engineering 11	3
		Animal Diseases	4
		Biological Science	3-4
		Physical Science	3-5
		Social Science	3

DEPARTMENTS OF INSTRUCTION

Student Assemblies

1—FRESHMAN ASSEMBLY. The purpose of the series of lectures is to aid freshmen in becoming acquainted with the college and the curriculums and in solving problems which confront them as students. One lecture each week. .3 *credit; 1st semester* (Horlacher)

2—SOPHOMORE ASSEMBLY. (Home Economics.) Lectures on current problems in home economics. .3 *credit; 1st semester* (Erikson)

3—JUNIOR ASSEMBLY. (Home Economics.) Lectures on current problems in home economics. .3 *credit; 1st semester* (Erikson)

4—SENIOR ASSEMBLY. The purpose of the series of lectures is to present to seniors various aspects of their relationship to work which may be undertaken after graduation. One lecture each month. Requirement for graduation. *No credit*; *2nd semester* (Cooper, Horlacher)

* Courses in the first year list not previously elected may be elected in the second year.

AGRICULTURAL ENTOMOLOGY

Professor W. A. Price.

10—AGRICULTURAL ENTOMOLOGY. A general consideration of the principles of structure, biology, and classification affecting insects with frequent discussions of current topics relating to those insects. Lectures 2 hours; laboratory 2 hours. 3 *credits; 1st semester* (Price)

11—APICULTURE. The anatomy of the bee; the colony; location and equipment of the apiary; production and marketing of comb and extracted honey; diseases and enemies of bees. Lectures 2 hours; laboratory 2 hours. 3 *credits; 2nd semester* (Price)

102—ADVANCED AGRICULTURAL ENTOMOLOGY. Life history, control and means of identification of the common and important insects of Kentucky; the making and care of school collections, cages, and aquariums. Especially planned for those intending to take up vocational agriculture teaching and county agent work. Lectures 2 hours; laboratory 2 hours.
Prerequisite: *A. E.* 10. 3 *credits; 2nd semester* (Price)

103—ECONOMIC ENTOMOLOGY: FRUIT AND GARDEN INSECTS. Beneficial and injurious insects of fruit and garden crops with special attention to the life histories, habits, and control of injurious species found in Kentucky. Lectures 2 hours; laboratory 2 hours.
Prerequisite: *A. E.* 10. 3 *credits; 1st semester* (Price)

104—ECONOMIC ENTOMOLOGY: FARM CROP INSECTS AND ANIMAL PARASITES. Beneficial and injurious insects of common farm crops including those of stored grain and forage; also internal and external parasites of domestic animals. Lectures 2 hours; laboratory 2 hours.
Prerequisite: *A. E.* 10. 3 *credits; 2nd semester* (Price)

106a-b—SYSTEMATIC AND TECHNICAL AGRICULTURAL ENTOMOLOGY. Insect physiology, anatomy, ecology, and taxonomy; entomological literature and technique; studies of special groups of insects. Lectures 2 hours; laboratory 2 hours.
Prerequisites: *A. E.* 10 *and any of the following*: 102, 103, 104. 3 *credits; both semesters* (Price)

201a-b—ENTOMOLOGICAL PROBLEMS. Discussion and assignment of current insect subjects. Investigations of chosen insect problems, including original research work.
Prerequisites: *A. E.* 10, 103, 104. 3 *credits; both semesters* (Price)

AGRICULTURAL EXTENSION

Professor Bryant

1—METHODS IN AGRICULTURAL EXTENSION. Presenting the methods used in extension work in agriculture and home economics, organization, administration and financing; cooperating agencies; forms of organizing the working forces and methods of making programs of work. Open to juniors and seniors. One hour a week.
1 *credit; 2nd semester* (Bryant)

AGRONOMY

Professor Roberts (Soils), Professor Kinney (Crops), Professor Valleau (Plant Pathology), Associate Professor Karraker (Soils), Associate Professor Fergus (Crops).

1—SOILS. A general introductory study of the formation and properties of soils, their physical, chemical and biological processes and changes, and their management. Lectures and recitations 3 hours; laboratory 2 hours.
Prerequisites: *Chemistry* 1*a-b*. 4 *credits; 2nd semester* (Karraker)

11—FARM CROPS. A study of the geographical distribution, science of production and uses of the world's important farm crops. Lectures and recitations 2 hours; laboratory 2 hours. 3 *credits; 1st semester* (Fergus)

14—MARKET GRAIN GRADING AND GRAIN JUDGING. Studies of federal classes and grades of market grains. Attention is also given to show standards. Laboratory 4 hours.
Prerequisites: *Agronomy* 11. 2 *credits; 1st semester* (Fergus, Kinney)

23—PLANT PATHOLOGY. A general survey of the causes, effects of, and methods of control of plant diseases. Recitation 2 hours and laboratory 4 hours.
Prerequisites: *Botany* 7*a-b*. 4 *credits; 2nd semester* (Valleau)

105—ADVANCED CROPS. Important crops of the world are studied in some detail as regards distribution, soil and climatic adaptation and technique of production. Lectures and recitations 3 hours.
Prerequisite: *Agronomy* 11. 3 *credits; 2nd semester* (Kinney)

106—FIELD CROP IMPROVEMENT. A study of the principles involved and the technic used in breeding field crop plants. Lectures 2 hours.
Prerequisites: *Agronomy* 11; *A. I.* 19. 2 *credits; 2nd semester* (Kinney, Fergus)

109—RECENT DEVELOPMENTS IN SOIL MANAGEMENT. Consideration will be given to the water erosion, leaching, tillage, liming, fertilization, and cropping of soils in the light of recent knowledge.
Prerequisites: *Undergraduates, Agronomy* 115; *graduates, Agronomy* 1. 3 *credits; summer* (Roberts, Karraker)

110—ADVANCED SOILS: BIOLOGICAL STUDIES IN SOILS. A study in some detail of the soil organisms and biological soil processes. Lecture 1 hour; laboratory 4 hours.
Prerequisite: *Agronomy* 1. 3 *credits; 2nd semester* (Karraker)

111—ADVANCED SOILS: PHYSICO-CHEMICAL STUDIES IN SOILS. A study in some detail of the physico-chemical conditions and changes in soils. Lecture 1 hour; laboratory 4 hours.
Prerequisite: *Agronomy* 1. 3 *credits; 2nd semester* (Karraker)

112a-b—SPECIAL WORK IN SOILS. Students interested will be given the opportunity to do work not covered in the other courses in soils.
Prerequisite: *Agronomy* 1. 3 *credits; both semesters* (Roberts, Karraker)

113—METHODS AND RESULTS IN AGRONOMY EXPERIMENTATION. The essentials of reliable field experimentation, including sources of error; a study of field results with emphasis on interpretation. Lectures 3 hours.
Prerequisite: *Agronomy* 1. 3 *credits; 1st semester* (Roberts)

114a-b—SPECIFIC CROPS. This course is for the student who wishes to study a crop intensively.
Prerequisite: *Permission of instructor.* 2 *credits; both semesters* (Kinney, Fergus)

115—SOIL MANAGEMENT. Deals with erosion, soil moisture, tillage operations, soil organic matter and nitrogen, including animal and green manures, lime and fertilizers. Lectures 3 hours.
Prerequisite: *Agronomy* 1. 3 *credits; 1st semester* (Roberts)

116—TOBACCO. A course designed for students particularly interested in the more practical phases of tobacco production and grading. Laboratory periods are devoted entirely to practice in grading various types of tobacco leaf. Offered in alternate years. Lecture one hour per week; laboratory 2 hours. Open to juniors and seniors.
[NOT OFFERED 1935-36.] 2 *credits; 2nd semester* (Kinney)

202a-b—SPECIAL PROBLEMS IN CROP PRODUCTION.
2 *credits; both semesters* (Kinney, Fergus)

203a-b—LITERATURE OF PLANT PATHOLOGY. A survey of the literature of plant pathology.
Prerequisite: *Agronomy* 23. 3 *credits; both semesters* (Valleau)

204a-b—INVESTIGATIONS IN SOILS.
Prerequisite: *Permission of instructor.* 3 *credits; both semesters* (Roberts, Karraker)

207a-b—SEMINAR.
1 *credit; both semesters* (Agronomy Staff)

ANIMAL INDUSTRY

Professor Good (Animal Husbandry), Professor Horlacher (Animal Husbandry), Professor Anderson (Genetics), Professor Martin (Poultry), Professor Ely (Dairying), Associate Professor Wilford (Animal Husbandry), Assistant Professor Barkman (Dairying), Assistant Professor Harris (Animal Husbandry), Mr. Morrison (Dairying).

4—LIVE STOCK MANAGEMENT. Strictly practical phases of live stock production are handled in this course, including preparation of animals for show and sale ring. Laboratory 2 hours.
1 *credit; 1st semester* (Harris)

13—LIVE STOCK JUDGING. Judging beef cattle, sheep and swine and practice in writing reasons and giving reasons orally. Laboratory 4 hours.
Prerequisite: *A. I.* 17 *or* 21. 2 *credits; 2nd semester* (Harris)

17—BREEDS OF LIVE STOCK. Origin, history, development and adaptability of the more important breeds of cattle, hogs, horses, and sheep; practice in judging. Lectures 3 hours.
3 *credits; 2nd semester* (Horlacher)

19—GENETICS. A study of the fundamental laws of heredity. Lectures 3 hours. 3 *credits; both semesters* (Anderson)

20—PRINCIPALS OF ANIMAL NUTRITION. Fundamental principles involved in the digestion, absorption and assimilation of feeds by domestic animals; uses of the different nutrients; feeds, rations and their nutritive rations; practical feeding of live stock. Lectures 3 hours.
Prerequisite: *Chemistry* 1*a*. 3 *credits; 2nd semester* (Good, Wilford)

21—MARKET CLASSES AND GRADES. A course to familiarize students with the market requirements of different types of live stock; fundamentals of judging by score card and comparative placing of animals. Laboratory 4 hours. 2 *credits; 1st semester* (Harris)

22—FARM POULTRY PRODUCTION. Production and care of poultry on the general farm; breeds and varieties; feeding; housing, culling, incubation; brooding; diseases; marketing of poultry products. Lectures 3 hours; laboratory 2 hours. 2 *credits; first half of 1st semester* (Martin)

23—ELEMENTS OF DAIRYING. The place of dairying in agriculture; factors influencing the composition of milk; laws governing production and distribution of dairy products: operation and use of the Babcock test; types of farm dairy equipment. Lectures 3 hours; laboratory 2 hours. 2 *credits; second half of 1st semester* (Ely, Morrison)

25—JUDGING DAIRY PRODUCTS. A study of the accepted standards for judging market milk, cream, butter, ice cream, cheese, and starters, and practice in scoring these products in accordance with standard methods. Laboratory 2 hours. 1 *credit; 1st semester* (Barkman)

35—ARTIFICIAL INCUBATION AND BROODING. The fundamental principles involved in the operating of mammoth incubators and brooders; hatchery operation and management. Practice in the operation of mammoth incubators and storage brooders. Laboratory 4 hours.
Prerequisite: *A. I.* 22. 2 *credits; 2nd semester* (Martin)

102—FARM BUTCHERING AND CURING MEATS. Slaughtering and blocking out of beeves, veals, hogs, and lambs; judging on foot and on the hook; wholesale and retail cuts, meat curing and cures with special emphasis on pork. Lectures 2 hours; laboratory 4 hours.
Prerequisite: *A. I.* 21. 4 *credits; 1st semester* (Wilford)

104—ANIMAL BREEDING. A survey of the methods by which the breeders have built up the different types of domestic animals. Lectures 3 hours; laboratory 2 hours.
Prerequisites: *A. I.* 17, 19. 4 *credits; 2nd semester* (Anderson)

105—BEEF PRODUCTION. Development of the beef cattle industry in this and other countries; feeding, breeding and management of beef cattle. Laboratory work consists in judging beef cattle and practical problems relating to the industry. Lectures 2 hours; laboratory 2 hours.
Prerequisite: *A. I.* 20. 3 *credits; 2nd semester* (Good)

106—PORK PRODUCTION. A study of breeds and types; general management and feeding of all classes of swine supplemented with laboratory in judging and management. Lectures 2 hours; laboratory 2 hours.
Prerequisite: *A. I.* 20. 3 *credits; 1st semester* (Wilford)

107—SHEEP PRODUCTION. Breeds and market classes; judging, breeding, feeding, management and marketing of sheep; production and marketing of wool. Lectures 3 hours.
Prerequisite: *A. I.* 17 *or* 21. 3 *credits; 2nd semester* (Horlacher)

108—ADVANCED LIVE STOCK JUDGING. Special attention is given to comparative and group judging and to the presentation of oral reasons. Laboratory 2 hours. 1 *credit; 1st semester* (Horlacher)

110—ADVANCED LIVE STOCK JUDGING. Primarily for judging team candidates. Lectures and laboratory.
Prerequisites: *A. I.* 17, 21. 3 *credits; 1st semester* (Horlacher)
[NOT OFFERED 1935-36.]

111a-b—SPECIAL PROBLEMS IN ANIMAL HUSBANDRY.
3 *credits; both semesters* (Staff)

120—SYSTEMS OF LIVE STOCK PRODUCTION. A survey of the systems of live stock production in the various countries of the world; government regulation and codes; designed to give the student a broad view of the live stock industry. Lectures 3 hours.
Prerequisite: *A. I.* 17 *or* 21. 3 *credits; 1st semester and summer* (Horlacher)

121—ADVANCED GENETICS. Study of the laws of heredity as they have been applied in plant and animal improvement and may be made applicable for human betterment. Lectures 3 hours.
Prerequisite: *A. I.* 19. 3 *credits; 1st semester* (Anderson)

124—ADVANCED STUDY OF THE DAIRY BREEDS. Classification of prominent strains and families within the leading dairy breeds; interpretation of herd book data; advanced classification; selective and super registration; present day breed problems; selection by type; proved sires and a constructive dairy breeding program. Lectures 2 hours; laboratory 4 hours.
Prerequisite: *A. I.* 23. 4 *credits; 2nd semester* (Ely)

125—DAIRY CATTLE FEEDING AND MANAGEMENT. The application of the principles of nutrition to dairy cattle feeding problems; up-to-date methods contributing to maximum efficiency in the production of quality dairy products on the farm. Lectures 3 hours.
Prerequisite: *A. I.* 20. 3 *credits; 2nd semester* (Ely)

127—ADVANCED POULTRY BREEDING. Fundamental genetic principles involved in poultry breeding; transmission of egg production, broodiness, egg shell color and feather color; a breeding program is mapped out, analyzed, and studied in detail. Lectures 3 hours.
Prerequisite: *Genetics.* 3 *credits; 2nd semester* (Martin)

129—DAIRY BACTERIOLOGY. The application of bacteriological principles to the production of processing of milk and other dairy products involving methods of entrance of microorganisms into dairy products, effects of their growth and methods for their control. Lectures 2 hours; laboratory 4 hours.
Prerequisite: *Bacteriology* 52 *or* 102. 4 *credits; 1st semester* (Morrison)

130—BUTTER AND ICE CREAM. A study of the various processes and problems involved in the manufacture and storage of butter and ice cream. Lecture 1 hour; laboratory 6 hours.
Prerequisite: *A. I.* 23. 3 *credits; 1st semester* (Barkman)

131—MARKET MILK AND CHEESE. A study of the problems connected with the production and handling of milk and manufacture of certain types of cheese. Lecture 1 hour; laboratory 6 hours.
Prerequisite: *A. I.* 23. 3 *credits; 2nd semester* (Morrison)

132a-b—SPECIAL PROBLEMS IN DAIRYING.
3 *credits; both semesters* (Staff)

133a-b—SPECIAL PROBLEMS IN POULTRY.
3 *credits; both semesters* (Staff)

134—ADVANCED POULTRY PRODUCTION. Advanced problems involved in incubation, brooding, pathology, nutrition, and flock management. Lectures 3 hours.
Prerequisite: *A. I.* 22. 3 *credits; 2nd semester* (Martin)

136—TECHNICAL CONTROL OF DAIRY PRODUCTS. This course is designed to give the student a working knowledge of various chemical and bacteriological tests used in the control of production or processing of dairy products. Laboratory and recitations 6 hours. Offered in alternate years.
Prerequisites: *A. I.* 23, 129. 3 *credits; 2nd semester* (Morrison)
[NOT OFFERED 1935-36.]

201a-b—ECONOMIC FACTORS INVOLVED IN MEAT PRODUCTION. Problems involving the economical production of beef, pork, and mutton.
3 *credits; both semesters* (Good, Horlacher, Wilford, Harris)

202a-b—MEATS. Research in any field touching on the industry.
3 *credits; both semesters* (Wilford)

203a-b—RESEARCH IN GENETICS.
3 *credits; both semesters* (Anderson)

204a-b—RESEARCH IN DAIRYING.
3 *credits; both semesters* (Dairy Staff)

205a-b—INVESTIGATIONS IN BREEDING LIGHT HORSES.
3 *credits; both semesters* (Anderson)

206a-b—RESEARCH IN POULTRY. Special problems involving original investigations on the part of the student. Throughout the year.
3 *credits; both semesters* (Martin)

207a-b—INVESTIGATIONS IN WOOL. Special research problems.
3 *credits; both semesters* (Horlacher)

208a-b—RESEARCH IN ANIMAL BREEDING.
3 *credits; both semesters* (Anderson)

209a-b—ANIMAL HUSBANDRY SEMINAR.
1 *credit; both semesters* (Good and Staff)

ANIMAL PATHOLOGY

Dr. Dimock, Dr. Hull.

116—DISEASES OF DOMESTIC ANIMALS. Distribution, general nature. methods of dissemination, sanitation, prevention, and eradication of infectious and parasitic diseases of animals; hygiene and preventive medicine, with emphasis on the transmissible diseases. Lectures, recitations, and reference reading. 4 *credits; 2nd semester* (Dimock)

126—ANATOMY AND PHYSIOLOGY OF DOMESTIC ANIMALS. Correlation of structure and function of the various organs of the body; a

study of anatomy and physiology as related to work offered in other courses as live stock judging, butchering, animal nutrition, animal breeding, and animal diseases. Lectures 3 hours; laboratory 2 hours.
4 *credits; 1st semester* (Hull)

201a-b—INVESTIGATIONS IN ANIMAL DISEASES.
Prerequisites: *A. P.* 126 *and* 116 *or equivalent.* 4 *credits; both semesters* (Dimock)

FARM ECONOMICS

Professor Nicholls, Mr. Galloway, Mr. Oyler.

4—AGRICULTURAL ECONOMICS. Fundamental economic principles involved in the problems of the farmer, including the determination of value, interest, wages and profits; economic motives and ideals; geographic factors; principles of production; proportioning of land, labor and capital; farm credit, land tenure. Lectures 2 hours; laboratory 2 hours.
Prerequisite: *Economics* 1. 3 *credits; 2nd semester* (Galloway)

10—FARM ACCOUNTING. Principles of accounting with special reference to their application to the organization and operation of the farm. Lectures 2 hours; laboratory 2 hours.
Prerequisite: *F. E.* 4 *or permission of instructor.* 3 *credits; 2nd semester* (Galloway)

107a-b—SPECIAL PROBLEMS IN FARM MANAGEMENT. Students enrolling in this course are assigned some special problem, as for example, the cost of producing some class of farm products such as dairy products, crops or live stock, or the problem of profitable farm organization in a specified community. 3 *credits; both semesters* (Nicholls)

108—LAND PROBLEMS. Land resources and their relation to the food supply; the present and potential supply of land of various grades; rent and its determination; factors determining the valuation of land; land tenure; landlord-tenant relations. Offered in alternate years.
Prerequisite: *F. E.* 4. 2 *credits; 1st semester* (Nicholls)
[NOT OFFERED 1935-36.]

109—ADVANCED FARM MANAGEMENT. This course consists of a fuller study of the principles of farm management considered in course 113. A feature of the laboratory work is the visiting of well-organized and successful farms and studying their organization. Lecture 1 hour; laboratory 2 hours. Offered in alternate years.
Prerequisite: *Farm Economics* 113. 2 *credits; 1st semester* (Nicholls)

113—FARM MANAGEMENT. Principles underlying the organization and operation of a farm in such a way as to secure the greatest continuous profit; a study of the experience and methods employed by successful farmers. Lectures 3 hours.
Prerequisite: *Farm Economics* 4. 3 *credits; 1st semester* (Nicholls)

120—RURAL COMMUNITY PROBLEMS. Fundamental principles underlying the social organization of country life; rural vital statistics; the shifting of the rural population; community hygiene and sanitation; the rural church; the rural school; organization for community betterment; special study by the student of his own community. Lecture 3 hours.
Prerequisite: *Economics* 1. 3 *credits; 1st semester* (Oyler)

201a-b—RESEARCH IN FARM ECONOMICS. Assignment of an advanced problem in the field of farm economics. Stress is placed on the plan, technique and scientific method used by the student in developing his research. 3 *credits; both semesters* (Nicholls)

203a-b—AGRICULTURAL ECONOMICS SEMINAR. Discussions and papers on methods, problems, current literature and research in the field of agricultural economics. Two hours. 1 *credit; both semesters* (Staff)

FARM ENGINEERING

Professor Kelley, Mr. Brooks.

8—FARM STRUCTURAL ENGINEERING. A combination farm building, drawing and shop course specially designed for students preparing for vocational high school teaching. Lectures and recitations 2 hours; laboratory 4 hours. 4 *credits; 1st semester* (Brooks)

9—FARM MOTORS. A study of the fundamental principles governing the selection, construction, operation, repairing, and testing of tractors and motors adapted for farm use. Lectures and recitations 2 hours; laboratory 2 hours. 3 *credits; 2nd semester* (Kelley)

10—MECHANICS OF THE FARMSTEAD. A study of the fundamentals of engineering as applied to agriculture. The course includes the following subjects: Mechanics of materials, transmission of power, farm sanitation equipment, and farm implements. Lecture and recitation 2 hours; laboratory 2 hours. 3 *credits; 1st semester* (Kelley)

11—LAND MEASUREMENT, DRAINAGE AND TERRACING. Surveying and mapping farm land; locating farm buildings and fields; designing and constructing farm drainage systems; terracing to prevent erosion; and the use of surveying instruments for these purposes. Lecture 1 hour, laboratory 4 hours. 3 *credits; 2nd semester* (Kelley)

101a-b—SPECIAL PROBLEMS.
Prerequisite: *Farm Engineering* 10. 3 *credits; both semesters* (Kelley)

102—DAIRY ENGINEERING. A study of the engineering principles involved in the cconstruction, installation, operation and management of machinery and equipment used in the handling and manufacturing of dairy products. Lectures and recitations 2 hours; laboratory 2 hours.
Prerequisite: *F. E.* 10. 3 *credits; 1st semester* (Kelley)

HORTICULTURE

Professor Olney, Professor Elliott, Mr. Wartman, Mr. Emmert.

1—GENERAL HORTICULTURE. A study of the principles underlying the care and management of horticultural crops, including propagation, nutrition, habits of growth, fruitfulness, pollination, pruning, training, insect and disease control, harvesting and storing. Lectures 3 hours; laboratory 2 hours. 4 *credits; 1st semester* (Olney, Waltman)

103—POMOLOGY. Apple Production. A course dealing with the theory and practice of commercial apple growing. Adaptation, soil relations, fruitfulness, and orchard management problems are studied in detail. Lectures 2 hours; laboratory 2 hours.
Prerequisite: *Horticulture* 1. 3 *credits; 1st semester* (Waltman)

104—POMOLOGY. Stone Fruits. A detailed study of commercial peach, plum, and cherry growing. Lectures 2 hours; laboratory 2 hours.
Prerequisite: *Horticulture* 1. 3 *credits; 2nd semester* (Waltman)
[NOT OFFERED 1935-36.]

105—POMOLOGY. Small Fruits. A detailed study of the care and management of commercial plantings of strawberries, raspberries and other bush fruits. Lecture 1 hour; laboratory 2 hours a week, first half; lectures 2 hours a week, last half.
Prerequisite: *Horticulture* 1. 2 *credits; 2nd semester* (Waltman)

106—GREENHOUSE CONSTRUCTION AND MANAGEMENT. A study of the details of greenhouse construction and management. Lecture 1 hour; laboratory 2 hours. 2 *credits; 1st semester* (Emmert)

108—VEGETABLE FORCING. A study of the culture of vegetable crops under glass. Lecture 2 hours; laboratory 2 hours.
[NOT OFFERED 1935-36.] 3 *credits; 1st semester* (Emmert)

110—VEGETABLE GARDENING. A study of the fundamental principles of vegetable growing, and the farmer's home garden. Lectures 2 hours; laboratory 2 hours. 3 *credits; 2nd semester* (Emmert)

111—MARKET GARDENING. A detailed study of commercial vegetable growing, with special emphasis on crops suited to Kentucky. Lectures 2 hours; laboratory 2 hours.
Prerequisites: *Horticulture* 108, 110. 3 *credits; 2nd semester* (Emmert)

113—LANDSCAPE GARDENING. A study of lawns, trees and shrubs and their arrangement for home and school yard planting. Lecture 2 hours; laboratory 2 hours. 3 *credits; 2nd semester* (Elliott)

114—LANDSCAPE GARDENING. A continuation of 113. Special attention is given to design and the use of plant materials. Lectures 2 hours; laboratory 2 hours.
Prerequisites: *Horticulture* 113, 117. 3 *credits; 2nd semester* (Elliott)

115a-b—SPECIAL PROBLEMS. This course is designed to permit advanced students to make an intensive study of some phase of horticulture in which they are particularly interested. May be taken only with approval of the instructor. 3 *credits; both semesters* (Staff)

117—ELEMENTS OF FLORICULTURE. A study of the fundamental principles of flower growing under glass and in the garden. Lectures 2 hours; laboratory 2 hours. 3 *credits; 2nd semester* (Elliott)

118—FLOWER GARDEN AND HOME GROUNDS. A detailed study of the culture and arrangement of garden flowers for the home grounds. Lectures 2 hours; laboratory 2 hours.
Prerequisite: *Horticulture* 117. 3 *credits; 2nd semester* (Elliott)

119—PLANT PROPAGATION. A detailed study of the principles and methods of propagating plants. Lectures 2 hours; laboratory 2 hours.
Prerequisites: *Botany* 7*a-b*. 3 *credits; 2nd semester* (Elliott)
[NOT OFFERED 1935-36.]

200a-b—SEMINAR.
1 *credit; both semesters* (Staff)

MARKETS AND RURAL FINANCE

Professor H. B. Price, Assistant Professor Card, Mr. Bradley.

108—MARKETING. Principles and methods of marketing farm products; methods of marketing at country points and in central markets; classes and functions of middlemen; marketing specific commodities; market price; marketing costs; and cooperative marketing. Lectures 3 hours.
Prerequisite: *Economics* 1. 3 *credits; 1st semester* (Price)

109—COOPERATIVE MARKETING. Principles, methods and problems involved in the cooperative marketing of farm products; legal, organization, and management problems which cooperatives encounter for different classes of farm products. Lectures 3 hours.
Prerequisite: *M. & R. F.* 108. 3 *credits; 2nd semester* (Price)

110—ADVANCED MARKETING. Marketing live stock, dairy products, eggs, and poultry; analysis of local and terminal market organization; factors affecting efficiency of business set-up and financial organization of marketing agencies. Lectures 3 hours.
Prerequisite: *M. & R. F.* 108. 3 *credits; 1st semester* (Price)

111—AGRICULTURAL PRICES. A study of the factors influencing prices of farm products, price movements and trends, and price relationships. Methods of price comparison, long time price movements and cyclical tendencies are reviewed. Lectures 3 hours.
Prerequisite: *Farm Economics* 4. 3 *credits; 1st semester* (Card)

112—FARM FINANCE. Principles of financing the production and marketing of farm products; credit needs of agriculture, including short time, intermediate and farm mortgage credit requirements; organization and operation of the federal farm loan system, and other agencies which furnish credit for agriculture. Lectures 3 hours.
Prerequisite: *Farm Economics* 4. 3 *credits; 2nd semester* (Bradley)

113—AGRICULTURAL STATISTICS. Sources, methods of presentation, and analysis of agricultural statistics with special references to agricultural census, crop and live stock estimates; collection, tabulation and graphic presentation of data; measures of dispersion, index numbers, trends and correlation. Lectures 2 hours; laboratory 2 hours.
Prerequisite: *Economics* 1. 3 *credits; 1st semester* (Card)

131—ADVANCED AGRICULTURAL PRICES. A review of price theory and statistical method with special reference to research in agricultural prices; analysis of varicus price studies with reference to the theory upon which they are based, research methods used and reliability of conclusions drawn. Lectures 2 hours.
Prerequisites: *M. & R. F.* 111; 113 or *Commerce* 107. 2 *credits; 1st semester* (Card)

132—CURRENT PROBLEMS IN AGRICULTURAL ECONOMICS. This course emphasizes recent developments in agricultural economics, agricultural marketing, production and farm credit; federal production adjustment programs, organization of agricultural credit, marketing agreements and industrial codes.
Prerequisite: *Farm Econ.* 4. 3 *credits; 2nd semester* (Price)

202a-b—SPECIAL PROBLEMS IN MARKETING AND RURAL FINANCE. Open to graduate students who have the necessary training and ability to do research on individual problems. The course consists of individual work on some selected problem related to agricultural marketing or agricultural finance.
Prerequisite: *Approval of head of department.* 3 *credits; each semester* (Price)

203a-b—SEMINAR. Analysis of current problems in the field of marketing and rural finance. 1 *credit; both semesters* (Price)

204—RESEARCH IN MARKETING. Types of research in marketing. Laying out the research project. Analysis of data.
Prerequisite: *M. & R. F.* 108. 2 *credits; 2nd semester* (Price)

HOME ECONOMICS

Professor Erikson, Associate Professor Wade, Assistant Professor Grundmeier, Miss Deephouse, Miss Barkley, Miss Hoover.

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.

Upon entering the College of Agriculture each student is assigned a faculty adviser. It is the function of this faculty member to serve as a friendly, personal adviser to the student. 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	53.8
Prescribed home economics	45.0
Assemblies	.9
Electives required in home economics	4.0
Free electives	30
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
Art 2a	Art Structure		4	2.
H. E. 26	Textiles	2		2.
H. E. 6a	Foods		6	3.
Chemistry 1a	General Inorganic	3	4	5.
Physics 51a	Introduction to Physics	3		3.
Phys. Ed. 1a	Gymnasium		2	.7
Freshman Assembly		1		.3
				16.0

Second Semester

Art 2b	Art Structure		4	2.
H. E. 6b	Foods		6	3.
Chemistry 1b	General Inorganic	3	4	5.
Physics 51b	Introduction to Physics	3		3.
H. E. 29	Costume Design	3		3.
Phys. Ed. 1b	Gymnasium		2	.7
				16.7

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
English 1a	Composition	3		3.
Chemistry 7	Organic Chemistry	3	2	4.
Psychology 1	Elem. Psychology	3		3.
H. E. 46	Clothing	1	4	3.
English 6	Essentials of Speech	2		2.
or				
Journalism 1a	Reporting	3		3.
Phys. Ed. 2a	Gymnasium		2	.7
Soph. Assembly		1		.3
				16. or 17

Second Semester

Anat. and Phys. 3	Physiology	2	4	4.
English 1b	English Composition	3		3.
H. E. 47	Advanced Clothing		6	3.
Econ. 1	Principles of Economics	3		3.
Psych. 7	Child Psychology	3		3.
Phys. Ed. 2b	Gymnasium		2	.7
				16.7

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
H. E. 3	Foods and Nutrition	2	4	4.
H. E. 41	Housing	3		3.
H. E. 17	Food Sources and Costs	3		3.
Junior Assembly				.3
Electives				7.
				17.3

Second Semester

H. E. 115	Child Care and Development	3		3.
H. E. 124	Dietetics	2	4	4.
H. E. 117	Interior Decoration	3		3.
English 3b	History of English Literature	3		3.
Electives				4. or 5
				17. or 18

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Farm Econ. 120	Rural Community Problems	3		3.
or				
Sociology 1a	Principles of Sociology	3		3.
Home Ec. 33	Health of the Family	3		3.
*Home Ec. 142	Home Management and Family Relationships	2	6	5.
Electives				6.
				17.

Second Semester

*Home Ec. 142	Home Management and Family Relationships	2	6	5.
Electives				11.
				16.

* May be taken either semester.

MAJOR WORK

The curriculum as outlined is for the student who desires a general course. The College offers opportunity for major work in the following fields: Home Economics Education, Dietetics and Institution Management, and Textiles and Clothing.

TRAINING FOR TEACHERS OF VOCATIONAL HOME ECONOMICS

The Federal Vocational Education Act passed by Congress in 1917 makes provision for the training of teachers of 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 meeting the approval of the staff in home economics education will be entitled to a state certificate to teach home economics on a vocational basis in the public schools of Kentucky.

SUGGESTED PROGRAM FOR HOME ECONOMICS EDUCATION

The curriculum for the freshman and sophomore years is the same as that of the general curriculum.

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
H. E. 3	Food and Nutrition	2	4	4.
H. E. 41	Housing	3		3.
H. E. 17	Food Sources and Costs	3		3.
Educ. 147	Foundations of Second. Educ.	3		3.
Bact. 52	Principles of Bact.	2	4	4.
Junior Assembly				.3
				17.3

Second Semester

H. E. 115	Child Care and Development	3		3.
H. E. 124	Dietetics	2	4	4.
H. E. 117	Interior Decoration	3		3.
English 3b	History of English Literature	3		3.
Educ. 160	Technique of Teaching H. E.			3.
Elective				1.
				17.

FOURTH YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
H. E. 33	Health of the Family	3		3.
*H. E. 142	Home Manag. and Family Relation	2	6	5.
*Educ. 162	Directed Teaching in Home Ec.			6.
Sociol. 1a	Principles of Sociology	3		3.
or				
Farm Ec. 12C	Rural Community Problems	3		3.
				17.

Second Semester

*H. E. 142	Home Manag. and Family Relation	2	6	5.
*Ed. 162	Directed Teaching in Home Ec.			6.
Educ. 101	School Organization	3		3.
Electives				2.
				16.

* May be taken either semester.

SUGGESTED PROGRAM FOR DIETETICS AND INSTITUTION MANAGEMENT

The curriculum for the freshman year and the first half of the sophomore year is the same as that of the general curriculum.

SOPHOMORE YEAR

Second Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Anat. and Phys. 3	Physiology	2	4	4.
English 1b	English Composition	3		3.
H. E. 47	Adv. Clothing		6	3.
Econ. 1	Principles of Econ.	3		3.
H. E. 82	Institution Foods	2	4	4.
Phys. Ed. 2b	Gymnasium			.7
				17.7

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
H. E. 3	Food and Nutrition	2	4	4.
H. E. 41	Housing	3		3.
H. E. 81	Institution Marketing	1	4	3.
Commerce 7a	Principles of Account.			4.
H. E. 119a	Experimental Cookery			3.
Junior Assembly				.3
				17.3

Second Semester

H. E. 124	Dietetics	2	4	4.
H. E. 117	Interior Decoration	3		3.
English 3b	History of English Literature	3		3.
Commerce 6	Secretarial Accounting			3.
Electives				3.
				16.

FOURTH YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Psych. 7	Child Psychology	3		3.
Bact. 52	General Bacteriology	2	4	4.
H. E. 33	Health of the Family	3		3.
Soc. 1a	Principles of Sociology	3		3.
or				
Farm Ec. 120	Rural Community Prob.	3		3.
Electives				3.
				16.

Second Semester

*H. E. 142	Home Management and Family Relationships	2	6	5.
H. E. 115	Child Care and Development	3		3.
H. E. 112	Public School Nutrition	3		3.
H. E. 178	Institution Organization	2	2	3.
Electives				3.
				17.

* Offered both semesters.

SUGGESTED PROGRAM FOR TEXTILES AND CLOTHING

The curriculum for the freshman year is the same as that of the general curriculum.

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
English 1a	English Composition	3		3.
Chemistry 7	Organic Chemistry	3	2	4.
Psych. 1	General Psychology	3		3.
H. E. 46	Clothing	1	4	3.
Phys. Ed. 2a	Gymnasium		2	.7
Soph. Assembly				.3
French 1a	Elementary French	3		3.
or				
German 1a	Elementary German	3		3.

Second Semester

Anat. & Phys. 3	Physiology	2	4	4.
English 1b	English Composition	3		3.
H. E. 47	Adv. Clothing		6	3.
Economics 1	Principles of Economics	3		3.
Phys. Ed. 2b	Gymnasium		2	.7
French 1b	Elementary French	3		3.
or				
German 1b	Elementary German	3		3.

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
H. E. 3	Food and Nutrition	3	4	4.
H. E. 41	Housing	2		2.
H. E. 17	Food Sources and Costs	3		3.
Junior Assembly		1		.3
English 6	Essentials of Speech	2		2.
or				
Journalism 1a	Reporting	3		3.
French 2a	Intermediate French	3		3.
or				
German 2a	Intermediate German	3		3.
Art 61a	Drawing		6	3.

Second Semester

Psych. 7	Child Psychology	3		3.
H. E. 124	Dietetics	2	4	4.
H. E. 117	Interior Decoration	3		3.
English 3b	History of English Literature	3		3.
French 2b	Intermediate French	3		3.
or				
German 2b	Intermediate German	3		3.
Art 61b	Drawing		6	3.
H. E. 104	Problems in Textiles	2	4	4.

FOURTH YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Art 62a	Design	3		3.
H. E. 115	Child Care and Development	3		3.
H. E. 33	Health of the Family	3		3.
H. E. 116	Adv. Costume Design	3		3.
H. E. 106a	Seminar in Textiles and Cloth.			1.
Sociology 1a	Principles of Sociology	3		3.
or				
Farm Economics 120	Rural Community Problems	3		3.

Second Semester

H. E. 142	Home Manag. and Family Relation.	2	6	5.
Art 62b	Design	3		3.
Educ. 101	School Organization	3		3.

COURSES OF STUDY

3—FOOD AND NUTRITION. The study of the properties and nutritional values of food and its conversion into the matter and energy of the body. Lecture 2 hours; laboratory 4 hours.
Prerequisite: *Chemistry* 7. 4 *credits; both semesters* (Erikson)

6a—FOODS. An introduction to the study of food. The course includes a study of the classification and composition of foods; methods of preparation and principles involved. Laboratory 6 hours.
3 *credits; 1st semester* (Barkley)

6b—FOODS. A course dealing with the preservation of food; the selection, purchase and preparation of food in connection with meal planning and service. Laboratory 6 hours.
Prerequisite: *H. E. 6a.* 3 *credits; 2nd semester* (Barkley)

16—ELEMENTARY NUTRITION. Nutritive functions of food and nutritive requirements of the body are presented for those who wish to know the value to mental and physical efficiency of good food selection. It is given in a way that calls for no training in the natural sciences. Lectures 2 hours; laboratory 2 hours. Not open to students registered in home economics. 3 *credits; both semesters* (Grundmeier)

17—FOOD SOURCES AND COSTS. Study of the production, distribution and exchange of food supplies to develop discrimination for grades and classes of foods. Consideration is given food legislation and inspection. Lectures 3 hours.
Prerequisite: *Economics* 1. 3 *credits; 1st semester* (Hoover)

26—TEXTILES. Study of fibers, cloth manufacturers, selection, care and cost of textiles. Lecture 1 hour; laboratory 2 hours.
2 *credits; 1st semester* (Wade)

29—COSTUME DESIGN. Study of the individual from the standpoint of personality type, color type and personal characteristics. Application of principles and elements of design to the individual wardrobe. Lectures 3 hours.
Prerequisite: *Art 2a.* 3 *credits; both semesters* (Wade)

32—CHILDREN'S CLOTHING. Selection and construction of suitable clothing for children. Laboratory 6 hours.
Prerequisite: *H. E.* 46. 3 *credits; 1st semester* (Barkley)

33—HEALTH OF THE FAMILY. This course deals with the factors that influence health; the forces to be used for health improvement; the human body and its adjustments; applications of modern science to health; care of the muscular, skeletal and nervous systems; prevention of specific diseases and practice in the techniques of home nursing. Lectures 3 hours.
3 *credits; 1st semester* (Erikson)

41—HOUSING. Modern trends in housing. Economics of housing, housing laws, zoning, house plans and equipment. Present day trends in heating, plumbing and lighting for the home. Problems of costs, management, convenience and beauty are stressed. Lectures 3 hours.
3 *credits; 1st semester* (Deephouse)

46—CLOTHING. Lecture work consists of the study of social and economic clothing problems; clothing budget. Laboratory work consists of the application of the different manipulative processes to linen, cotton and silk materials. Lecture 1 hour; laboratory 4 hours.
Prerequisite: *H. E.* 29. 3 *credits; 1st semester* (Wade)

47—ADVANCED CLOTHING. Special emphasis is placed upon organized planning in the making of garments and upon selection of material and design for the occasion. Tailored wool dresses, silk afternoon frocks, dinner gowns and tailored wool suits are made. Laboratory 6 hours.
Prerequisite: *H. E.* 46. 3 *credits; 2nd semester* (Wade)

81—INSTITUTION MARKETING. Study of the economics of food and supplies for institutions. Field trips are made to wholesale houses, distributing centers, food factories. Lecture 1 hour; laboratory 4 hours.
Prerequisite: *Economics* 1. 3 *credits; 1st semester* (Hoover)

82—INSTITUTION FOODS. Study and practice of large quantity food preparation and service. Emphasis is placed on standard methods and cost accounting. Lectures 2 hours; laboratory 4 hours.
Prerequisite: *H. E.* 6*b*. 4 *credits; 2nd semester* (Hoover)

104—PROBLEMS IN TEXTILES. Study of major and minor fibers; tests both physical and chemical; individual problems used for term problems. 4 *credits; 2nd semester* (Wade)

105a-b—SEMINAR IN NUTRITION. Investigations of recent research on nutrition. Lecture 1 hour.
Prerequisite: *Senior or graduate standing.* 1 *credit; both semesters* (Erikson)

106a-b—SEMINAR IN TEXTILES AND CLOTHING. Investigations of special textile and clothing problems. One hour.
Prerequisite: *Senior or graduate standing.* 1 *credit; both semesters* (Wade)

109—NUTRITION. Investigations in nutrition and in metabolic processes of the body. It includes sugar tolerance tests; protein and mineral balance experiments on human subjects; biological tests for vitamins and proteins of various foods. Lectures 2 hours; laboratory 4 hours.
Prerequisite: *H. E.* 124. 4 *credits; 2nd semester* (Erikson)

112—PUBLIC SCHOOL NUTRITION. A study of the nutrition class movement with emphasis on causes and effects of malnutrition, methods of judging nutrition and height and weight standards. Development of health program in public schools. The laboratory work includes a health class with public school children. Lectures 2 hours; laboratory 2 hours.
3 *credits; both semesters* (Grundmeier)

115—CHILD CARE AND DEVELOPMENT. A survey of the field of parent education; care and training of the child from pre-natal life through the pre-school period; standards for normal development—physical, social, emotional and mental; includes observations of pre-school children. Lectures 3 hours.
Prerequisites: *H. E.* 3; *Physiology* 3, *Psychology* 7. 3 *credits; both semesters* (Deephouse)

116—ADVANCED COSTUME DESIGN. History of costume. A survey of costume from ancient to modern times, showing political, religious and industrial influence in design, and furnishing opportunity to create new designs applicable to modern needs. Study of Egyptian, Greek, Roman, French 18th and 19th Century costumes. Lectures 3 hours.
Prerequisites: *H. H.* 29, *Art* 2*b*. 3 *credits; 2nd semester* (Wade)

117—INTERIOR DECORATION. A study of furniture, drapery, rugs, and accessories, their influence on interiors of present day, the cost factors involved and the application of principles of color and design to create a harmonious interior.
Prerequisites: *Art* 2*b*, *H. E.* 26. 3 *credits; 2nd semester* (Wade)

118—TAILORING. A study of the economics of clothing, budgets. Suit and coat are made. Lecture 1 hour; laboratory 4 hours.
Prerequisite: *H. E.* 47. 3 *credits; 2nd semester* (Wade)

119a-b—EXPERIMENTAL COOKERY. Study of the application of chemical methods to the problems of cookery. Observation on effect of pH and determinations of losses in vegetable cookery; experimental work on batter and dough mixtures; shortening power of fats; properties of emulsions; comparison of slow and quick-acting baking powder; jellying properties of fruit juices. Laboratory 6 hours.
3 *credits; both semesters* (Grundmeier)

121a-b—SPECIAL PROBLEMS. Special problems in undergraduate research. 2 *credits; both semesters* (Staff)

124—DIETETICS. A study of daily food requirements of human beings at different age levels, emphasis being given to satisfying the divergent needs of families and other groups. Practice is given in normal dietaries for the different ages and different groups. Lectures 2 hours; laboratory 4 hours.
Prerequisites: *H. E.* 3, 6*b*, *Physiology* 3. 4 *credits; both semesters* (Grundmeier)

142—HOME MANAGEMENT AND FAMILY RELATIONSHIPS. A study of the problems of the home from the standpoint of management of materials, time and money; consumer buying; household accounts; leisure; social and cultural training. Students live for a stated period in the University Home Management House. Lectures 2 hours; laboratory 6 hours.
Prerequisites: *H. E.* 41, 124. 5 *credits; both semesters* (Deephouse)

178—INSTITUTION ORGANIZATION AND ADMINISTRATION. Principles of organization are studied, types of institution service, modern industrial tendencies, advertisement, personnel, organization and financial control. Lectures 2 hours; laboratory 2 hours.
Prerequisites: *H. E.* 81, 82. 3 *credits; 2nd semester* (Hoover)

179—INSTITUTION MANAGEMENT. Application of scientific principles of institution management consisting of practical work in the institution six hours a day, six days a week, daily half hour conferences and one hour lecture a week.
Prerequisite: *H. E.* 178. 6 *credits; 2nd semester* (Hoover)

180—INSTITUTION EQUIPMENT. Selection, arrangement, cost and care of institution equipment is made. Problems of lighting, heating, ventilation, refrigeration are considered. Lectures 2 hours; laboratory 2 hours.
Prerequisites: *H. E.* 81, 82. 3 *credits; 1st semester* (Hoover)

201—ADVANCED HOME MANAGEMENT AND FAMILY RELATIONSHIPS. A lecture course affording opportunity for special study in family relationships. The social and economic problems of the home are stressed. Lectures 3 hours.
Prerequisites: *H. E.* 142, *Economics* 1. 3 *credits; 2nd semester* (Deephouse)

202a-b—GRADUATE SEMINAR.
2 *credits; both semesters* (Erikson)

COLLEGE OF ENGINEERING

**James Hiram Graham, C. E., Dean*

Introductory Statement

Organization

The College of Engineering embraces the following departments: Civil and Architectural Engineering, Engineering Drawing, Electrical Engineering, Engineering Mechanics, Mechanical Engineering, Mining and Metallurgical Engineering and Practical Mechanics.

Admission

For admission to the freshman class in the College of Engineering, applicants should present one and one-half units in Algebra, one-half unit in Solid Geometry, and one unit in Physics, other requirements being the same as specified for admission to the freshman class in general. Applicants meeting all of the general requirements, but deficient in Algebra, Solid Geometry or Physics, will be admitted to the freshman class, but will be required to take extra courses designed to remove the deficiencies. It is desirable, but not obligatory, that applicants also have high school credit in Chemistry and Trigonometry.

Courses of Study and Degrees

The College of Engineering offers instruction leading to the following baccalaureate degrees:

Bachelor of Science in Architectural Engineering.
Bachelor of Science in Civil Engineering.
Bachelor of Science in Electrical Engineering.
Bachelor of Science in Mechanical Engineering.
Bachelor of Science in Metallurgical Engineering.
Bachelor of Science in Mining Engineering.

The courses of study leading to these degrees are identical during the freshman year. The freshman courses cover such subjects as Chemistry, Drawing, English, Mathematics, Physics and Practical Mechanics, which are essential to every branch of engineering. This gives the student the benefit of one year of training in fundamental subjects before he is required to choose between the different fields.

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* Dean beginning May 30, 1935.

ELECTIVE

Provision is made in the curriculum of each course for both technical and non-technical electives.

Any course given in the College of Engineering will be considered as technical, however the Head of the Department may designate certain courses in Physics, Mathematics and Chemistry as technical electives. Any course outside of the College of Engineering will be considered as non-technical. All electives must be approved by the Head of the Department in which the student is taking his major.

REQUIREMENTS FOR GRADUATION

To receive a baccalaureate degree in Engineering, a student must complete a minimum of 157.0 credits with a standing of at least "1". He must also complete all of the required work as shown in the curriculum of the department in which he is taking his major work.

GRADUATE COURSES

The College of Engineering offers graduate courses leading to the following advanced degrees:

Master of Science in Civil Engineering.
Master of Science in Electrical Engineering.
Master of Science in Mechanical Engineering.
Master of Science in Metallurgical Engineering.
Master of Science in Mining Engineering.

The College of Engineering offers to its own graduates, the following professional degrees:

C. E. (Civil Engineer).
E. E. (Electrical Engineer).
M. E. (Mechanical Engineer).
Met. E. (Metallurgical Engineer).
E. M. (Mining Engineer).

For further information regarding graduate work, see the graduate school section of this catalog, and the graduate courses listed under each department.

STUDENT ADVISORY COMMITTEE

The organization of the College of Engineering provides for a Student Advisory Committee. The duty of this committee is to look after the welfare of each student from the standpoint of personal problems affecting the student's relationship with his college work. Students must select, or will be assigned to, a member of this committee, who thereupon becomes the student's adviser. This provides

a means of developing a close relationship between students and faculty, which helps to eliminate failures, and to encourage students to get the most from their college work.

SUMMER WORK

It is desirable that students of engineering obtain practical experience while pursuing their college course. All engineering students are urged to obtain employment during their summer vacations with a company engaged in engineering work.

OUTLINE OF THE FRESHMAN YEAR OF ALL COURSES LEADING TO ENGINEERING DEGREES

FRESHMAN YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Assembly 1a	Introduction to Engineering	2	0	0.7
Chemistry 2a	General Inorganic Chemistry	2	4	4.0
Drawing 11a	Descriptive Geometry and General Engineering Drawing	2	6	3.0
English 1a	English Composition	3	0	3.0
Mathematics 17	College Algebra	3	0	3.0
Mathematics 18	Plane Trigonometry	2	0	2.0
Military Sc. 1a	First Year Basic Course	0	3	1.3
Physical Ed. 1a	Gymnasium Practice	0	2	0.7
Prac. Mech. 11	Wood Shop	0	4	1.3
Prac. Mech. 13a	Foundry	0	2	0.7
		14	21	19.7

Second Semester

Assembly 1b	Introduction to Engineering	2	0	0.7
Chemistry 2b	General Inorganic Chemistry	2	4	4.0
Drawing 11b	Descriptive Geometry and General Engineering Drawing	2	6	3.0
English 1b	English Composition	3	0	3.0
Hygiene 1	Personal and Community Health	2	0	1.0
Mathematics 19	Analytical Geometry	3	0	3.0
Military Sc. 1b	First Year Basic Course	0	3	1.3
Physical Ed. 1b	Gymnasium Practice	0	2	0.7
Prac. Mech. 12	Pattern Making	0	4	1.3
Prac. Mech. 13b	Foundry	0	2	0.7
		14	21	18.7

OUTLINE OF THE SOPHOMORE YEAR OF COURSES LEADING TO B. S. DEGREES IN ARCHITECTURAL AND CIVIL ENGINEERING

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Assembly 2	Engineering Problems	2	0	0.7
Civil Engin. 12	Plane Surveying	2	2	2.7
Civil Engin. 31	Highway Location, Construction and Maintenance	2	0	2.0
Drawing 14a	Engineering Drawing	0	6	2.0
English 10a	Public Speaking	2	0	2.0
Mathematics 20a	Differential Calculus	4	0	4.0
Military Sc. 6a	Second Year Basic Course	0	3	1.5
Physics 2a	General College Physics	3	4	5.0
		15	15	19.9

Second Semester

Assembly 3	Class Society	1	0	0.
Civil Engin. 13	Advanced Surveying	2	3	3.0
Civil Engin. 35	Highway Materials	0	1	0.5
Drawing 14b	Engineering Drawing	0	6	2.0
Engin. Mech. 11	Analytical Mechanics	4	0	4.0
Mathematics 20b	Integral Calculus	4	0	4.0
Military Sc. 6b	Second Year Basic Course	0	3	1.5
Physics 2b	General College Physics	3	4	5.0
		14	17	20.0

OUTLINE OF THE SOPHOMORE YEAR OF COURSES LEADING TO B. S. DEGREES IN ELECTRICAL AND MECHANICAL ENGINEERING

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Assembly 2	Engineering Problems	2	0	0.7
Civil Engin. 12	Plane Surveying	2	2	2.7
Drawing 12a	Engineering Drawing	0	6	2.0
English 10a	Public Speaking	2	0	2.0
Mathematics 20a	Differential Calculus	4	0	4.0
Military Sc. 6a	Second Year Basic Course	0	3	1.5
Physics 2a	General College Physics	3	4	5.0
Practical Mech. 14	Machine Shop	0	4	1.3
Practical Mech. 16	Elements of the Automobile	0	4	1.3
		13	23	20.5

Second Semester

Assembly 3	Class Society	1	0	0.
Drawing 12b	Kinematic Drawing	0	6	2.0
Elec. Engin. 11	Electrical Circuits	0	2	0.7
Engin. Mech. 11	Analytical Mechanics	4	0	4.0
Engin. Mech. 12	Kinematics	2	0	2.0
Mathematics 20b	Integral Calculus	4	0	4.0
Military Sc. 6b	Second Year Basic Course	0	3	1.5
Physics 2b	General College Physics	3	4	5.0
Practical Mech. 15	Forge Shop	0	4	1.3
		14	19	20.5

OUTLINE OF THE SOPHOMORE YEAR OF COURSES LEADING TO B. S. DEGREES IN METALLURGICAL AND MINING ENGINEERING

SOPHOMORE YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Assembly 2	Engineering Problems	2	0	0.7
Chemistry 6	Qualitative Analysis	1	6	4.0
Civil Engin. 12	Plane Surveying	2	2	2.7
English 10a	Public Speaking	2	0	2.0
Mathematics 20a	Differential Calculus	4	0	4.0
Military Sc. 6a	Second Year Basic Course	0	3	1.5
Physics 2a	General College Physics	3	4	5.0
		14	15	19.9

Second Semester

Assembly 3	Class Society	1	0	0.
Chemistry 8	Quantitative Analysis	1	8	5.0
Mathematics 20b	Integral Calculus	4	0	4.0
Metallurgy 27	General Metallurgy	2	0	2.0
Military Sc. 6b	Second Year Basic Course	0	3	1.5
Physics 2b	General College Physics	3	4	5.0
Practical Mech. 14	Machine Shop	0	4	1.3
Practical Mech. 15	Forge Shop	0	4	1.3
		11	23	20.1

OUTLINE OF THE JUNIOR AND SENIOR YEARS OF COURSE LEADING TO THE DEGREE B. S. IN ARCHITECTURAL ENGINEERING

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Art 145a	History of Architecture	1	0	1.0
Art 146a	History of Architecture	2	0	2.0
Art 61a	Drawing	0	6	3.0
Assembly 4a	Class Society	1	0	0.
Civil Engin. 14	Topographic Surveying	0.5	3	1.5
Civil Engin. 81	Testing Materials	0	2	1.0
Civil Engin. 171	Stresses	3	4	4.3
Civil Engin. 172	Timber Structures	0.5	2	1.2
Engin. Mech. 13	Mechanics of Materials	4	0	4.0
	Non-Technical Elective	3	0	3.0
		15.0	17	21.0

Second Semester

Art 145b	History of Architecture	1	0	1.0
Art 146b	History of Architecture	2	0	2.0
Art 61b	Drawing	0	6	3.0
Archit. Engin. 1	Architectural Rendering	0	6	2.0
Assembly 4b	Class Society	1	0	0.
Civil Engin. 5	Masonry Construction	2	0	2.0
Civil Engin. 173a	Steel Structures	1	4	2.3
Mech. Engin. 103	Elements of Heat-Power Eng.	2	0	2.0
Mech. Engin. 111	Engineering Reports	2	0	2.0
	Non-Technical Elective	3	0	3.0
		14	16	19.3

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Architec. Engin. 2	Order Problems	0	4	1.3
Architec. Engin. 3	Sanitation, Acoustics, Fire Prevention	3	0	3.0
Architec. Engin. 4a	Architectural Design	0	8	2.7
Assembly 5a	Class Society	1	0	0.
Civil Engin. 102	Reinforced Concrete	3	0	3.0
Civil Engin. 104a	Reinforced Concrete Design	0	2	0.7
Elec. Engin. 101	Elements of Elec. Engin. Machinery	2	3	3.0
Mech. Engin. 106a	Heating and Ventilation	2	0	2.0
Art 17a	Art Appreciation	1	0	1.0
	Non-Technical Elective	3	0	3.0
		15	17	19.7

Second Semester

Architec. Engin. 4b	Architectural Design	0	8	2.7
Architec. Engin. 5	Building Equipment	2	0	2.0
*Architect. Engin. 6	Independent Problems	3	6	5.0
Assembly 5b	Class Society	1	0	0.
Civil Engin. 111	Contracts and Specifications	1	0	1.0
Elec. Engin. 11	Electrical Circuits	0	2	0.7
Elec. Engin. 136	Illumination Engineering	2	0	2.0
Mech. Engin. 110	Heating and Ventilating Design	0	4	1.3
Metallurgy 26	Engineering Metallurgy	2	0	2.0
Art 17b	Art Appreciation	1	0	1.0
Practical Mech. 15	Forge Shop	0	4	1.3
		12	24	19.0

* This may be replaced by Technical Elective.

OUTLINE OF JUNIOR AND SENIOR YEARS OF COURSE LEADING TO THE DEGREE B. S. IN CIVIL ENGINEERING

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Civil Engin. 14	Topographic Surveying	0.5	3	1.5
Civil Engin. 81	Testing Materials	0	2	1.0
Civil Engin. 171	Stresses	3	4	4.3
Civil Engin. 172	Timber Structures	0.5	2	1.2
Assembly 4a	Class Society	1	0	0.
Elec. Engin. 101	Elements of Electrical Engin. Machinery	2	3	3.0
Engin. Mech. 13	Mechanics of Materials	4	0	4.0
Engin. Mech. 101	Hydraulics	2	0	2.0
	Non-Technical Elective	3	0	3.0
		16.0	14	20.0

Second Semester

Civil Engin. 5	Masonry Construction	2	0	2.0
Civil Engin. 48	Railroad Location, Construction and Maintenance	4	5	5.7
Civil Engin. 173a	Steel Structures	1	4	2.3
Assembly 4b	Class Society	1	0	0.
Mech. Engin. 111	Engineering Reports	2	0	2.0
Geology 12	Elementary Geology for Engineers	3	0	3.0
Mathematics 11	Spherical Trigonometry	1	0	1.0
Mathematics 12	Least Squares	1	0	1.0
	Non-Technical Elective	3	0	3.0
		18	9	20.0

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Civil Engin. 102	Reinforced Concrete	3	0	3.0
Civil Engin. 103	Walls and Dams	2	0	2.0
Civil Engin. 104a	Reinforced Concrete Design	0	2	0.7
Civil Engin. 173b	Steel Structures	2	4	3.3
*Civil Engin. 181a	Independent Problems	1	2	1.0
Assembly 5a	Class Society	1	0	0.
Art 145a	History of Architecture	1	0	1.0
Mech. Engin. 103	Elements of Heat-Power Engin.	2	0	2.0
Geology 7	Engineering Geology	2	0	2.0
	Non-Technical Elective	3	0	3.0
Civil Engin. 113	Geodesy, Precise Surveying and Leveling	2	2	3.0
		19	10	21.0

Second Semester

Civil Engin. 32	Streets and Pavements	2	0	2.0
Civil Engin. 36	Bituminous Materials	0	2	1.0
Civil Engin. 104b	Reinforced Concrete Design	0	2	0.7
Civil Engin. 111	Contracts and Specifications	1	0	1.0
Civil Engin. 122	Water Power Engineering	2	0	2.0
Civil Engin. 151	Water Supply and Water Works	2	0	2.0
Civil Engin. 152	Sewers and Sewage Disposal	2	0	2.0
Civil Engin. 153	Design of Water Works and Sewers	0	4	1.3
*Civil Engin. 181b	Independent Problems	1	9	4.0
Assembly 5b	Class Society	1	0	0.
Art 145b	History of Architecture	1	0	1.0
Metallurgy 26	Engineering Metallurgy	2	0	2.0
		14	17	19.0

* This may be replaced by Technical Elective.

OUTLINE OF JUNIOR AND SENIOR YEARS OF COURSE LEADING TO THE DEGREE B. S. IN ELECTRICAL ENGINEERING

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Elec. Engin. 105	D. C. Circuits and Machinery	3	3	4.0
Assembly 4a	Class Society	1	0	0.
Engin. Mech. 13	Mechanics of Materials	4	0	4.0
Engin. Mech. 15a	Machine Design	0	6	2.0
Engin. Mech. 101	Hydraulics	2	0	2.0
Civil Engin. 81	Testing Materials	0	2	1.0
Mech. Engin. 104a	Engineering Thermodynamics	2	0	2.0
Mech. Engin. 112a	Mechanical Laboratory	1	2	2.0
	Non-Technical Elective	3	0	3.0
		16	13	20.0

Second Semester

Elec. Engin. 106	Alternating Currents	3	3	4.0
Elec. Engin. 107	Industrial Control	2	3	3.0
Elec. Engin. 121	D. C. Design	0	6	2.0
Assembly 4b	Class Society	1	0	0.
Engin. Mech. 15b	Machine Design	0	6	2.0
Mech. Engin. 104b	Engineering Thermodynamics	2	0	2.0
Mech. Engin. 111	Engineering Reports	2	0	2.0
Mech. Engin. 112b	Mechanical Laboratory	1	2	2.0
	Non-Technical Elective	3	0	3.0
		14	20	20.0

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Elec. Engin. 108	Industrial Electronics	2	3	3.0
Elec. Engin. 109	Electrical Power Equipment	4	0	4.0
Elec. Engin. 11a	Advanced Electrical Lab.	0	6	2.0
Elec. Engin. 123	Electrical Equipment Problems	0	4	1.3
Elec. Engin. 141	Analytical Electrical Engin.	2	0	2.0
Assembly 5a	Class Society	1	0	0.
Mech. Engin. 105	Steam Power Plant Equipment	2	0	2.0
Mech. Engin. 106a	Heating and Ventilation	2	0	2.0
	Non-Technical Elective	3	0	3.0
		16	13	19.3

Second Semester

Elec. Engin. 111b	Advanced Electrical Lab.	0	3	1.0
Elec. Engin. 122	Transformer Design	0	2	0.7
Elec. Engin. 131	Communication Engineering	3	0	3.0
Elec. Engin. 136	Illumination Engineering	2	0	2.0
Elec. Engin. 151	Electrical Engin. Conferences	0	2	1.0
*Elec. Engin. 152	Independent Problems (Elective)	0	(12)	(4.0)
Assembly 5b	Class Society	1	0	0.
Metallurgy 26	Engineering Metallurgy	2	0	2.0
	Technical Electives	6	0	6.0
	Non-Technical Elective	3	0	3.0
		17	7	18.7

* Those electing Independent Problems course are not required to take Advanced Electrical Laboratory 111b.

OUTLINE OF THE JUNIOR AND SENIOR YEARS OF COURSE LEADING TO THE DEGREE B. S. IN MECHANICAL ENGINEERING

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Mech. Engin. 104a	Engineering Thermodynamics	2	0	2.0
Mech. Engin. 112a	Mechanical Laboratory	1	2	2.0
Assembly 4a	Class Society	1	0	0.
Elec. Engin. 105	D. C. Circuits and Machinery	3	3	4.0
Engin. Mech. 13	Mechanics of Materials	4	0	4.0
Engin. Mech. 16	Machine Design	0	12	4.0
Civil Engin. 81	Testing Materials	0	2	1.0
	Non-Technical Elective	3	0	3.0
		14	19	20.0

Second Semester

Mech. Engin. 102	Elements of Reciprocating Engines	2	0	2.0
Mech. Engin. 104b	Engineering Thermodynamics	2	0	2.0
Mech. Engin. 111	Engineering Reports	2	0	2.0
Mech. Engin. 112b	Mechanical Laboratory	1	2	2.0
Assembly 4b	Class Society	1	0	0.
Elec. Engin. 106	Alternating Currents	3	3	4.0
Engin. Mech. 17	Machine Design	0	12	4.0
	Non-Technical Elective	3	0	3.0
		14	17	19.0

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Mech. Engin. 105	Steam Power Plant Equipment	2	0	2.0
Mech. Engin. 101a	Mechanical Design	0	10	3.3
Mech. Engin. 106a	Heating and Ventilation	2	0	2.0
Mech. Engin. 107	Flow of Gases	1	0	1.0
Mech. Engin. 113a	Mechanical Laboratory	1	2	2.0
Assembly 5a	Class Society	1	0	0.
Elec. Engin. 109	Electrical Power Equipment	4	0	4.0
Elec. Engin. 123	Electrical Equipment Problems	0	4	1.3
Engin. Mech. 14	Hydraulics	1	0	1.0
	Non-Technical Elective	3	0	3.0
		15	16	19.6

Second Semester

Mech. Engin. 101b	Mechanical Design	0	15	5.0
Mech. Engin. 106b	Heating and Ventilation	2	0	2.0
Mech. Engin. 108	Internal Combusition Engines	3	0	3.0
Mech. Engin. 109	Refrigeration	2	0	2.0
Mech. Engin. 113b	Mechanical Laboratory	1	2	2.0
Assembly 5b	Class Society	1	0	0.
Metallurgy 26	Engineering Metallurgy	2	0	2.0
	Non-Technical Elective	3	0	3.0
		14	17	19.0

OUTLINE OF THE JUNIOR AND SENIOR YEARS OF COURSE LEADING TO THE DEGREE B. S. IN METALLURGICAL ENGINEERING

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Metallurgy 29	Metallurgy of Ferrous Metals	3	0	3.0
Assembly 4a	Class Society	1	0	0.
Mining 20	Principles of Mining	4	0	4.0
Elec. Engin. 101	Elements of Electrical Engin. Machinery	2	3	3.0
Engin. Mech. 11	Analytical Mechanics	4	0	4.0
Mech. Engin. 103	Elements of Heat-Power Engin.	2	0	2.0
Chemistry 131a	Physical Chemistry	2	4	4.0
Geology 109a	Mineralogy	0	4	2.0
		18	11	22.0

Second Semester

Metallurgy 28	Metallurgy of Copper and Lead	2	0	2.0
Metallurgy 140	Science of Metals	3	0	3.0
Assembly 4b	Class Society	1	0	0.
Civil Engin. 81	Testing Materials	0	2	1.0
Elec. Engin. 102	Electrical Engineering Machinery	2	0	2.0
Engin. Mech. 13	Mechanics of Materials	4	0	4.0
Mech. Engin. 111	Engineering Reports	2	0	2.0
Chemistry 131b	Physical Chemistry	2	4	4.0
Geology 12	Elementary Geology for Engineers	2	2	3.0
		18	8	21.0

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Metallurgy 30	Metallurgy of Aluminum and Other Non-Ferrous Metals	2	0	2.0
Metallurgy 120	Assaying	0	8	2.7
Metallurgy 130	Metallurgical Calculations (General and Non-Ferrous)	3	0	3.0
Metallurgy 141	Metallography Laboratory	0	3	1.0
Metallurgy 160	Ore Dressing	3	0	3.0
Assembly 5a	Class Society	1	0	0.
Mining 120	Mining Geology and Prospecting	3	0	3.0
Engin. Mech. 14	Hydraulics	1	0	1.0
Mech. Engin. 107	Flow of Gases	1	0	1.0
	Non-Technical Elective	3	0	3.0
		17	11	19.7

Second Semester

Metallurgy 40	Metallurgy of Non-Metallics	2	0	2.0
*Metallurgy 50	Independent Work on Metallurgical Problems	3	0	3.0
Metallurgy 121	Fuel and Metallurgical Lab.	0	3	1.0
Metallurgy 131	Metallurgical Calculations (Ferrous)	2	0	2.0
Metallurgy 142	Heat Treatment	2	2	2.7
Metallurgy 161	Flotation	2	0	2.0
Metallurgy 162	Ore Dressing Laboratory	0	2	0.7
Assembly 5b	Class Society	1	0	0.
Civil Engin. 78	Stresses	0	4	1.3
	Non-Technical Elective	3	0	3.0
		15	11	17.7

* This may be replaced by Technical Elective.

OUTLINE OF THE JUNIOR AND SENIOR YEARS OF COURSE LEADING TO THE DEGREE B. S. IN MINING ENGINEERING

JUNIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Mining 20	Principles of Mining	4	0	4.0
Mining 21	Mine Surveying	2	4	4.0
Assembly 4a	Class Society	1	0	0.
Metallurgy 29	Metallurgy of Ferrous Metals	3	0	3.0
Elec. Engin. 101	Elements of Electrical Engin. Machinery	2	3	3.0
Engin. Mech. 11	Analytical Mechanics	4	0	4.0
Mech. Engin. 103	Elements of Heat-Power Engin.	2	0	2.0
Geology 109a	Mineralogy	0	4	2.0
		18	11	22.0

Second Semester

Assembly 4b	Class Society	1	0	0.
Metallurgy 28	Metallurgy of Copper and Lead	2	0	2.0
Metallurgy 140	Science of Metals	3	0	3.0
Civil Engin. 81	Testing Materials	0	2	1.0
Elec. Engin. 102	Electrical Engineering Machinery	2	0	2.0
Engin. Mech. 13	Mechanics of Materials	4	0	4.0
Mech. Engin. 111	Engineering Reports	2	0	2.0
Mech. Engin. 114	Mechanical Engineering Lab.	1	2	2.0
Geology 12	Elementary Geology for Engineers	2	2	3.0
Geology 109b	Mineralogy	0	4	2.0
		17	10	21.0

SENIOR YEAR

First Semester

Course	Subject	Hrs. Rec.	Hrs. Lab.	Credits
Mining 100	Mining of Unstratified Mineral Deposits	3	0	3.0
Mining 120	Mining Geology and Prospecting	3	0	3.0
Assembly 5a	Class Society	1	0	0.
Metallurgy 120	Assaying	0	8	2.7
Metallurgy 141	Metallography Laboratory	0	3	1.0
Metallurgy 160	Ore Dressing	3	0	3.0
Engin. Mech. 14	Hydraulics	1	0	1.0
Mech. Engin. 107	Flow of Gases	1	0	1.0
	Technical Elective	3	0	3.0
	Non-Technical Elective	3	0	3.0
		18	11	20.7

Second Semester

*Mining 50	Independent Work on Mining Problems	3	0	3.0
Mining 110	Mining of Stratified Mineral Deposits	2	0	2.0
Mining 111	Mine Ventilation	3	0	3.0
Mining 121	Oil Field Engineering	2	0	2.0
Assembly 5b	Class Society	1	0	0.
Metallurgy 161	Flotation	2	0	2.0
Metallurgy 162	Ore Dressing Laboratory	0	2	0.7
Civil Engin. 78	Stresses	0	4	1.3
Hygiene 7	First Aid	1	0	0.5
	Non-Technical Elective	3	0	3.0
		17	6	17.5

* This may be replaced by Technical Elective.

DEPARTMENTS OF INSTRUCTION

STUDENT ASSEMBLIES

1a—INTRODUCTION TO ENGINEERING. Scientific lectures and demonstrations covering all branches of engineering and the allied sciences; study of the curriculum of the College of Engineering to aid the student in choosing the branch of engineering which he wishes to follow. Two hours a week. 0.7 *credit; 1st semester*

1b—INTRODUCTION TO ENGINEERING. Continuation of 1a. Two hours a week. 0.7 *credit; 2nd semester*

2—ENGINEERING PROBLEMS. Analysis and solution of basic engineering problems as applied to the particular branch of engineering in which the student is registered, including the use of the slide rule. Two hours a week. 0.7 *credit; 1st semester*

3—CLASS SOCIETY. The class societies, affiliated as student branches of the four founder national engineering societies. Lectures on engineering projects of local and national interest. One hour a week.

No credit; 2nd semester, sophomore year

4a—CLASS SOCIETY. Same as 3. One hour a week.

No credit; 1st semester, junior year

4b—CLASS SOCIETY. Same as 3. One hour a week.

No credit; 2nd semester, junior year

5a—CLASS SOCIETY. Same as 3. One hour a week.

No credit; 1st semester, senior year

5b—CLASS SOCIETY. Same as 3. One hour a week.

No credit; 2nd semester, senior year

ARCHITECTURAL ENGINEERING

Professor Terrell, Mr. Meriwether

1—ARCHITECTURAL RENDERING. Pictorial delineation of architectural subjects in the medium of pencil, ink and water color. Drawing room six hours a week.
Prerequisite: *Art* 61*a*. 2 *credits; 2nd semester* (Meriwether)

2—ORDER PROBLEMS. Studies of the classical orders of architecture. Drawing room four hours a week.
Prerequisite: *A. E.* 1. 1.3 *credits; 1st semester*
[NOT OFFERED 1935-36.]

3—SANITATION, ACOUSTICS, FIRE PREVENTION. Theory and practice as applied to architectural design.
[NOT OFFERED 1935-36.] 3 *credits; 1st semester*

4a—ARCHITECTURAL DESIGN. Principles of aesthetic design and functional planning of buildings. Drawing room eight hours a week.
Prerequisite: *A. E.* 2. 2.7 *credits; 1st semester*
[NOT OFFERED 1935-36.]

4b—ARCHITECTURAL DESIGN. Continuation of 4a.
Prerequisite: *A. E.* 4*b*. 2.7 *credits; 2nd semester*
[NOT OFFERED 1935-36.]

5—BUILDING EQUIPMENT. Theory and practice of modern building equipment.
Prerequisite: *M. E.* 103. 2 *credits; 2nd semester*
[NOT OFFERED 1935-36.]

6—INDEPENDENT PROBLEMS. Development of complete working drawings and specifications of a building, to be selected by the student with the approval of the instructor. Class work three hours; drawing room six hours a week.
Prerequisite: *A. E.* 4*a*. 5 *credits; 2nd semester*
[NOT OFFERED 1935-36.]

CIVIL ENGINEERING

Professor Terrell, Professor Carrel, Assistant Professor Chambers, Assistant Professor Shaver

5—MASONRY CONSTRUCTION. Properties of stone, brick, cement, concrete and their uses in engineering structures.
2 *credits; 2nd semester* (Chambers)

12—PLANE SURVEYING. Theory and use of the transit, level and compass in land surveys, leveling, municipal and topographical surveys. General use and care of surveying instruments, note keeping, field problems and computations. Class work two hours a week, first or second semester; field work four hours a week. first half of first semester or second half of second semester.
Prerequisite: *Math.* 18. 2.7 *credits; both semesters* (Shaver)

13—ADVANCED SURVEYING. Triangulation and base line measurements, precise and trigonometric leveling, hydrographic surveys, map pro-

jection and plotting. Topographic mapping by the Stadia method. Class work two hours a week, second semester; field work six hours a week second half of second semester.
Prerequisite: *C. E.* 12. 3 *credits; 2nd semester* (Shaver)

14—TOPOGRAPHIC SURVEYING. Advanced work in topographic surveying and mapping methods, field information, methods of plotting and calculations. Class work one hour a week, first half of first semester; field work six hours a week, first half of first semester.
Prerequisite: *C. E.* 12. 1.5 *credits; 1st semester* (Shaver)

31—HIGHWAY LOCATION, CONSTRUCTION AND MAINTENANCE. Principles of location, topographic conditions, economic considerations, benefits and cost. Materials and types of roads, and general maintenance.
2 *credits; 1st semester* (Chambers)

32—STREETS AND PAVEMENTS. Drainage, subgrade, foundations and surfacing materials, traffic census, resistance to friction, safety appliances, construction and maintenance.
Prerequisite: *C. E.* 31. 2 *credits; 2nd semester* (Chambers)

35—HIGHWAY MATERIALS. Methods of testing stone, gravel, sand, brick, culvert pipe, cement, concrete and other highway materials. Laboratory two hours a week.
Prerequisite or concurrent: *C. E.* 31. 0.5 *credit; 1st half 2nd semester* (Chambers)

36—BITUMINOUS MATERIALS. Testing of asphalts, road oils, coal tars, flux oils and dust layers. Laboratory four hours a week.
Prerequisite or concurrent: *C. E.* 35. 1 *credit; 1st half 2nd semester* (Chambers)

48—RAILROAD LOCATION, CONSTRUCTION AND MAINTENANCE. Reconnoissance and preliminary surveys, curves and earth work. Monthly and final estimates for construction. Track layouts, construction and maintenance. Special problems consisting of all necessary field and office work for complete plans for a railroad. Class work four hours a week, second semester; field work ten hours a week, second half of second semester.
Prerequisite: *C. E.* 12. 5.7 *credits; 2nd semester* (Shaver)

78—STRESSES. Elementary course in stresses in framed structures. Drawing room four hours a week.
Prerequisite: *Phys.* 2*a*. 1.3 *credits; 2nd semester* (Carrel)

81—TESTING MATERIALS. Experimental investigations and tests of woods, metals, cement, concrete and other construction materials to verify the laws governing their behavior under given conditions. Laboratory two hours a week.
Prerequisites: *Math.* 20*a*, *Phys.* 2*a*. 1 *credit; both semesters* (Chambers)

102—REINFORCED CONCRETE. A study of concrete mixtures. Theory and design of beams, slabs, columns, bridges and buildings.
Prerequisite: *E. M.* 13. 3 *credits; 1st semester* (Terrell)

103—WALLS AND DAMS. Theory and design of retaining walls and dams.
Prerequisites: *E. M.* 13, 101. 2 *credits; 1st semester* (Terrell)

104a—REINFORCED CONCRETE DESIGN. Design of columns, beams, buildings, bridges, retaining walls, dams and arches. Special problems assigned to each student. Drawing room two hours a week.
Prerequisite: *E. M.* 13. 0.7 *credit; 1st semester* (Terrell)

104b—REINFORCED CONCRETE DESIGN. Design of a reinforced concrete arch. Drawing room two hours a week.
Prerequisite: *C. E.* 104*a*. 0.7 *credit; 2nd semester* (Carrel)

111—CONTRACTS AND SPECIFICATIONS. Legal forms and provisions of an engineering contract and details for specification writing.
1 *credit; 2nd semester* (Carrel)

113—GEODESY, PRECISE SURVEYING AND LEVELING. Method of making and adjusting observations in triangulation systems, and precise traverses. Observation and calculations for determining time, azimuth, latitude and longitude. Class work two hours a week, first semester; field work four hours a week first half of first semester.
Prerequisites: *Math.* 11, 12; *C. E.* 13. 3 *credits; 1st semester* (Terrell)

122—WATER POWER ENGINEERING. Investigations, design and operation of water power projects.
Prerequisite: *E. M.* 101. 2 *credits; 2nd semester* (Carrel)

151—WATER SUPPLY AND WATER WORKS. Sources of supply: Rainfall, surface water, rivers, lakes and ground water. Theory of filtration, purification, equipment and distribution. Problems in design and construction.
Prerequisite: *E. M.* 101. 2 *credits; 2nd semester* (Terrell)

152—SEWERS AND SEWAGE DISPOSAL. Sanitary and storm sewer systems; theory of design; method of disposal.
Prerequisite: *E. M.* 101. 2 *credits; 2nd semester* (Terrell)

153—DESIGN OF WATER WORKS AND SEWERS. Design of water supply system, storm and sanitary sewers and disposal plants. Specifications and estimates of cost. Drawing room four hours a week.
Prerequisite or concurrent: *C. E.* 151, 152. 1.3 *credits; 2nd semester* (Terrell)

171—STRESSES. Analytical and graphical solution of stresses in framed structures. Class work three hours; drawing room four hours a week.
Prerequisite: *Phys.* 2*a*. 4.3 *credits; both semesters* (Carrel)

172—TIMBER STRUCTURES. Design and detailing of timber structures. Class work one hour; drawing room four hours a week.
Prerequisite or concurrent: *C. E.* 171. 1.2 *credits; 2nd half 1st semester* (Carrel)

173a—STEEL STRUCTURES. Design and detail of steel buildings and highway bridges. Lecture two hours; drawing room eight hours a week.
Prerequisite: *C. E.* 171. 2.3 *credits; 1st half 2nd semester* (Carrel)

173b—STEEL STRUCTURES. Design and detail of steel railway bridges. Lecture two hours; drawing room four hours a week.
Prerequisite: *C. E.* 173*a*. 3.3 *credits; 1st semester* (Carrel)

181a—INDEPENDENT PROBLEMS. A complete solution with the necessary details, plans and specifications of a problem, selected by the student with the approval of the instructor, in one of the following fields:
(a) Reinforced concrete design, (b) Concrete research, (c) Structural steel, (d) Hydraulics, (e) Sanitary engineering, (f) Highway and railway engineering, (g) Geodetic surveying.

Conference, laboratory or drawing room three hours a week.
Prerequisite: *Student must show that he is qualified to undertake the proposed problem.* 1 *credit; 1st semester* (Terrell and others)

181b—INDEPENDENT PROBLEMS. Continuation of 181a. Ten hours a week conference, laboratory or drawing room.
Prerequisite: *C. E.* 181*a*. 4 *credits; 2nd semester* (Terrell and others)

Courses open only to Graduate Students

Prerequisite for graduate work: Students desiring to take any of the following courses should have a thorough 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 bachelor's degree in Civil Engineering.

202a—CONSTRUCTION. Advanced work in plain and reinforced concrete, theory, design and experimental work. Class work three hours; laboratory nine hours a week. 6 *credits; 1st semester* (Terrell)

202b—CONSTRUCTION. Continuation of 202a.
6 *credits; 2nd semester* (Terrell)

232a—HIGHWAY ENGINEERING. Advanced course designed for graduate civil engineers who wish to enter the field of highway engineering. Road laws, organization of highway departments, traffic, cost, contracts and specifications, laboratory investigations on all kinds of surfacing materials. Structures, their design and maintenance. Class work three hours; laboratory nine hours a week. 6 *credits; 1st semester* (Chambers)

232b—HIGHWAY ENGINEERING. Continuation of 232a.
6 *credits; 2nd semester*

242a—RAILROAD ENGINEERING. Advanced course in location, construction, maintenance, economical selection of lines, grade reduction, cost of operation, valuation, structures and their maintenance. Class work three hours; laboratory nine hours a week.
6 *credits; 1st semester* (Shaver)

242b—RAILROAD ENGINEERING. Continuation of 242a.
6 *credits; second semester* (Shaver)

252a—SANITARY ENGINEERING. Advanced course in sewer design, construction and maintenance. Design, maintenance and operation of sewage disposal plants. Water supply and water works design, construction and maintenance. (Courses in water analysis and bacteriology should be taken in connection with this course.) Class work three hours; laboratory nine hours a week. 6 *credits; 1st semester* (Terrell)

252b—SANITARY ENGINEERING. Continuation of 252a.
6 *credits; 2nd semester* (Terrell)

262a—GEODETIC SURVEYING. Advanced course in geodetic calculations, development and use of formulas used by the United States Coast and Geodetic Survey. Modern methods of field practice. Class work three hours; laboratory nine hours a week. 6 *credits; 1st semester* (Terrell)

262b—GEODETIC SURVEYING. Continuation of 262a.
6 *credits; 2nd semester* (Terrell)

272a—STRUCTURAL ENGINEERING. Advanced course in theory of structures, mill buildings, railroad and highway bridges. The use of influence diagrams and detail drawings. Class work three hours; laboratory nine hours a week. 6 *credits; 1st semester* (Carrel)

272b—STRUCTURAL ENGINEERING. Continuation of 272a.
6 *credits; 2nd semester* (Carrel)

ELECTRICAL ENGINEERING

Professor Freeman, Professor Bureau, Assistant Professor Barnett, Mr. Wilkins, Mr. Watkins

11—ELECTRICAL CIRCUITS. The course consists of a study of the National Electrical Safety Code of the National Board of Fire Underwriters; a study of the various types of wiring permissible under the code; practice in setting up the various types of wiring and a study of various types of signaling circuits used in buildings. Laboratory and lectures two hours a week. 0.7 *credit; both semesters* (Bureau, Watkins)

101—ELEMENTS OF ELECTRICAL ENGINEERING MACHINERY. A study in classroom and laboratory of the more common types of d. c. and a. c. electrical equipment and controls which are to be found in general use. Recitation two hours a week; laboratory three hours a week.
Prerequisite: *Phys.* 2*b*. 3 *credits; 1st semester* (Wilkins, Watkins)

102—ELECTRICAL ENGINEERING MACHINERY. A study in the classroom of electric power applied to mining machinery and metallurgical processes.
Prerequisite: *E. E.* 101. 2 *credits; 2nd semester* (Barnett)

105—D. C. CIRCUITS AND MACHINERY. A study in classroom and laboratory of the fundamental laws of electrical and magnetic circuits with special attention to direct current equipment, such as generators, motors, batteries and control apparatus. Recitation three hours a week; laboratory three hours a week.
Prerequisite: *Phys.* 2*b*. 4 *credits; both semesters* (Barnett, Watkins)

106—ALTERNATING CURRENTS. The fundamental theory of alternating current circuits and apparatus. Includes study of single phase and polyphase generators, motors and transformers, converters, etc. Recitation three hours; laboratory three hours a week.
Prerequisites: *E. E.* 105; *Math.* 20*a*. 4 *credits; 2nd semester* (Barnett, Wilkins, Watkins)

107—INDUSTRIAL CONTROL. A study of the field of electrical engineering which is concerned with the control of electric motive equipment. It involves a study of the individual types of control equipment as well as the various circuits with which they are tied together into a unit of automatic functioning equipment. Recitation two hours; laboratory three hours a week.
Prerequisite: *E. E.* 105, *or E. E.* 101. 3 *credits; 2nd semester* (Bureau, Watkins)

108—INDUSTRIAL ELECTRONICS. A study of the application of thermionic and light sensitive tubes to industry in non-communication uses such as controlling processes, safe-guarding life and property, etc. Included will be light sensitive tubes in illumination control, smoke density recorders, etc., and power rectifiers of various types. The laboratory work will consist of designing, building and studying control circuits. Recitation two hours; laboratory three hours a week.
Prerequisite: *Phys.* 2*b*. 3 *credits; 1st semester* (Wilkins, Watkins)

109—ELECTRICAL POWER EQUIPMENT. A general study of the operation of the more common types of electrical power equipment. Attention is given to power resources, prime movers, generating equipment, switch gear, transformers, meters, reactors, relays, lightning arresters and distribution systems. Recitation four hours a week.
Prerequisite: *E. E.* 106. 4 *credits; 1st semester* (Freeman, Bureau)

111a—ADVANCED ELECTRICAL LABORATORY. Advanced study of electrical machinery and equipment with special reference to alternating current apparatus. Laboratory six hours a week.
Prerequisite: *E. E.* 106. 2 *credits; 1st semester* (Bureau, Wilkins, Watkins)

111b—ADVANCED ELECTRICAL LABORATORY. Continuation of E. E. 111a. Laboratory three hours a week.
1 *credit; 2nd semester* (Wilkins, Watkins)

121—D. C. DESIGN. A study of design problems culminating in the design calculation for a generator or motor. Six hours a week.
Prerequisite: *E. E.* 105. 2 *credits; 2nd semester* (Barnett)

122—TRANSFORMER DESIGN. Design of a distribution transformer. Two hours a week.
Prerequisite: *E. E.* 106. 0.7 *credit; 2nd semester* (Wilkins)

123—ELECTRICAL EQUIPMENT PROBLEMS. A problem course in miscellaneous design and application of electrical equipment. Economic comparisons as well as engineering considerations are factors studied in making selections in equipment. Four hours a week.
Prerequisite: *E. E.* 106. 1.3 *credits; 1st semester* (Bureau, Wilkins)

131—COMMUNICATION ENGINEERING. A general survey of the field of electrical communication from the first Bell telephone to the modern dial telephone and the wireless phone; from the first Morse telegraph to the most modern form of automatic recording telegraph and the commercial wireless of today. Recitations three hours a week.
Prerequisite: *E. E.* 106. 3 *credits; 2nd semester* (Freeman)

136—ILLUMINATION ENGINEERING. Includes the science of seeing, a study of light sources, and photometry, fundamental principles of illumination as applied to home, public building, factory and commercial lighting. The course includes the solution of special problems in the planning and calculation of light distribution. Recitations two hours a week.
Prerequisite: *Phys.* 2*b*. 2 *credits; 2nd semester* (Bureau)

141—ANALYTICAL ELECTRICAL ENGINEERING. A study of the complex notation and its use in the vector analysis of electrical machinery and circuit conditions. Recitations two hours a week.
Prerequisite: *E. E.* 106. 2 *credits; 1st semester* (Bureau)

151—ELECTRICAL ENGINEERING CONFERENCES. Round table discussion of modern trends and practices in electrical engineering. Basis of discussions is current literature on electrical subjects. Two hours a week.
Prerequisite: *Senior standing.* 1 *credit; 2nd semester* (Staff)

152—INDEPENDENT PROBLEMS. A problem, approved by the department, forms the background for the student's original study and research. Only students the character of whose previous work warrants it, will be allowed to take this work. Twelve hours a week.
4 *credits; 2nd semester* (Staff)

Courses Open Only to Graduate Students

Prerequisite for graduate work: Students desiring to take any of the following courses should have a thorough working knowledge of Chemistry. Physics and Mathematics. For major work, a candidate must hold a bachelor's degree in Electrical Engineering or its equivalent.

205—ADVANCED INDUCTION MOTOR THEORY. A study of the theory underlying the characteristics of single phase and polyphase induction motors. Recitation three hours; laboratory 3 hours a week.
4 *credits* (Freeman, Bureau)

206—ELECTRIC POWER TRANSMISSION. The theory underlying calculation and operation of long distance transmission circuits. Special attention to relay control. Recitation three hours; laboratory three hours a week. 4 *credits* (Bureau, Wilkins)

207—ELECTRIC POWER DISTRIBUTION. A study of theory underlying operation and control of various types of distribution network circuits. Recitation three hours; laboratory three hours a week.
4 *credits* (Bureau, Wilkins)

208—ELECTRIC TRACTION. An advanced study of electric power application to railways, cranes, elevators, etc. Recitation three hours; drawing room three hours a week. 4 *credits* (Bureau)

209a—TELEPHONE ENGINEERING. An advanced study of the theory and operation of modern telephone exchanges. Layouts and designs are made to meet different assumed conditions. Recitation three hours; laboratory and design three hours a week. 4 *credits* (Freeman)

209b—TELEPHONE ENGINEERING. Continuation of 209a. Recitation three hours; laboratory and design three hours a week.
4 *credits* (Freeman)

210—SYMMETRICAL COMPONENTS. A study of the symmetrical component method of analyzing unbalanced conditions on transmission lines and its use in solving relay applications. Recitation three hours; laboratory and design three hours a week. 4 *credits* (Bureau)

ENGINEERING DRAWING

Professor Nollau, Associate Professor Horine, Miss Webb, Mr. Mock, Mr. Spicer, Mr. Farris

11a—DESCRIPTIVE GEOMETRY AND GENERAL ENGINEERING DRAWING. Theory of orthographic projection and its application to engineering drafting. Problems on points, lines, and planes, together with freehand lettering and exercises in the use and care of drawing instruments. Two hours recitation; six hours laboratory a week.
Prerequisite: *Solid Geometry.* 3 *credits; both semesters*
(Nollau, Horine, Webb, Spicer, Farris)

11b—DESCRIPTIVE GEOMETRY AND GENERAL ENGINEERING DRAWING. Continuation of Drawing 11a. Theory of orthographic projection applied to surfaces; problems on single and double curved surfaces; intersections; development of surfaces; oblique and single plane projection; problems in general engineering drawing; technical sketching, tracing and the reproduction of drawings for commercial use. Two hours recitation; six hours laboratory a week.
Prerequisite: *Drawing* 11*a.* 3 *credits; both semesters*
(Nollau, Horine, Webb, Spicer, Farris)

2a—MECHANICAL DRAWING. For students in Industrial Chemistry. Freehand lettering, exercises in the use and care of drawing instruments, and the principles of oblique and orthographic projection. Four hours laboratory a week. 1.3 *credits; both semesters*
(Horine, Webb, Spicer, Farris)

2b—MECHANICAL DRAWING. Continuation of Drawing 2a. For students in Industrial Chemistry. Principles of oblique and orthographic projection; technical sketching; tracing; blue printing; graphic layouts of laboratory apparatus and industrial problems. Four hours laboratory a week.
Prerequisite: *Draw.* 2*a.* 1.3 *credits; both semesters*
(Horine, Webb, Spicer, Farris)

12a—ENGINEERING DRAWING. For students in mechanical and electrical engineering. Application of Drawing 11a and 11b, comprising working drawings of parts of machines and complete machines, both details and assembly. Technical sketching and tracing. Six hours laboratory a week.
Prerequisite: *Draw.* 11*b.* 2 *credits; both semesters* (Nollau, Mock)

12b—KINEMATIC DRAWING. Continuation of Engineering Drawing 12a together with the introduction of problems and drawings pertaining to Kinematics. One hour lecture and five hours laboratory a week.
Prerequisites: *Draw.* 12*a, Phys.* 2*a.* 2 *credits; both semesters*
Concurrent: *E. M.* 12. (Nollau, Mock)

14a—ENGINEERING DRAWING. For students in Architectural and Civil Engineering. Topographic mapping, elements of highway, railroad, sewer, structural and architectural drawing. Technical sketching and methods of reproducing drawings for commercial use. Six hours laboratory a week.
Prerequisite: *Draw.* 11*b.* 2 *credits; both semesters* (Nollau, Farris)

14b—ENGINEERING DRAWING. For students in Architectural and Civil Engineering. Continuation of Drawing 14a. Problems in general

drafting for architectural and civil engineers developed from notes and sketches. Six hours laboratory a week.
Prerequisite: *Draw.* 14*a.* 2 *credits; both semesters* (Nollau, Farris)

115—PHOTOGRAPHY. Fundamental principles of photography. Lectures on the optics and chemistry of photography together with practical demonstrations. Negative making, printing, etc. One hour lecture; one hour recitation; two hours laboratory a week.
3 *credits; 2nd semester* (Nollau, Mock)

16a—FREEHAND LETTERING. Construction and composition of Roman, English Gothic and Commercial Gothic capitals and lower case letters. Four hours laboratory a week.
1.3 *credits; both semesters* (Nollau, Horine, Farris)

16b—ADVANCED FREEHAND LETTERING. Continuation of Drawing 16a. Design and composition of letters with special emphasis given to the choice of styles in advertising design. Four hours laboratory a week.
Prerequisite: *Draw.* 16*a.* 1.3 *credits; both semesters* (Nollau, Horine, Farris)

17a—ENGINEERING DRAWING. Special course for non-engineering students, comprising freehand lettering, use and care of drawing instruments, elementary principles of orthographic and single plane projection, topographic mapping, tracing and blueprinting. Six hours laboratory a week. 2 *credits; both semesters* (Nollau, Mock)

17b—ENGINEERING DRAWING. Continuation of Drawing 17a. Special problems designed to meet the needs of individual students. Six hours laboratory a week. 2 *credits; both semesters* (Nollau, Mock)

ENGINEERING MECHANICS

Professor Johnson, Professor Hawkins, Professor Jett, Mr. Conrad

11—ANALYTICAL MECHANICS. A study of the principles of pure mechanics and the application of these principles to engineering problems. Recitation four hours a week.
Prerequisites: *Phys.* 2*a*; *Math.* 20*a.* 4 *credits; both semesters* (Johnson, Hawkins)

12—KINEMATICS. The application of the fundamental principles of physics to the movements of the different parts of machines such as link work, gears, cams, simple and epicycle trains, rolling and sliding contacts, straight line and quick-return motions. Recitation two hours a week.
Prerequisites: *Draw.* 12*a*; *Phys.* 2*a.* 2 *credits; both semesters* (Hawkins)
Concurrent: *Draw.* 12*b.*

13—MECHANICS OF MATERIALS. The properties of materials commonly used in structural engineering and the relations of external loads on structural members (made of these materials) to the stresses and strains caused by the loads. Recitation four hours a week.
Prerequisite or concurrent: *E. M.* 11. 4 *credits; both semesters* (Johnson, Hawkins)

14—HYDRAULICS. A brief course in the flow of liquids through orifices, venturi meters, nozzles and pipes. This course omits advanced mate-

rial related to the design of hydraulic structures. Recitation two hours a week for one-half semester.
Prerequisite: *Phys.* 2*a*. 1 *credit; 1st half of 1st semester*
Prerequisite or concurrent: *Math.* 20*b*. (Hawkins)

15a—MACHINE DESIGN. Similar to E. M. 16 with due regard to electrical features. Lectures one hour; drafting room five hours a week.
Prerequisites: *E. M.* 12; *Draw.* 12*b*. 2 *credits; both semesters*
Prerequisite or concurrent: *E. M.* 13. (Jett, Conrad)

15b—MACHINE DESIGN. Continuation of E. M. 15a. Drafting room six hours a week.
Prerequisites: *E. M.* 11, 13, 15*a*. 2 *credits; both semesters*
(Jett, Conrad)

16—MACHINE DESIGN. The design of machine elements with due consideration given to each of the following items; motion and form, strength, durability and methods of manufacture or construction. The design of structural elements. Lecture one hour; drafting room eleven hours a week.
Prerequisites: *Draw.* 12*b*; *E. M.* 12. 4 *credits; both semesters*
Prerequisite or concurrent: *E. M.* 13. (Jett, Conrad)

17—MACHINE DESIGN. Proceeding from the design of the simple elements of a machine, the work is progressive in character, culminating in the production of shop drawings of a complete machine. Problems pertaining to reciprocating engines are also introduced. Drafting room twelve hours a week.
Prerequisites: *E. M.* 13, 16. 4 *credits; 2nd semester*
Concurrent: *M. E.* 102. (Jett, Conrad)

101—HYDRAULICS. Principles of hydraulics and hydrodynamic pressure. Flow of water through orifices, nozzles, pipes and open channels, over weirs, against stationary and moving vanes. Loss from friction and other sources. Recitation two hours a week.
Prerequisite: *Phys.* 2*a*. 2 *credits; both semesters*
Prerequisite or concurrent: *Math.* 20*b*. (Hawkins)

MECHANICAL ENGINEERING

Professor O'Bannon, Professor Jett, Professor Anderson, Assistant Professor Porter, Assistant Professor May, Mr. Singer

101a—MECHANICAL DESIGN. Individual work on the design or construction of mechanical equipment; selection and layout of power plant or heating and ventilating equipment. Problems assigned according to the interests of the student. Ten hours a week.
Prerequisites: *E. M.* 17; *M. E.* 104*b*. 3.3 *credits; 1st semester*
(O'Bannon, Jett, Anderson, Porter, May)

101b—MECHANICAL DESIGN. Continuation of M. E. 101a. Problems assigned according to the interests and qualifications of the student. If the problem demands, experimental work in the laboratory may be substituted for drafting room work. Problems of research character shall, or may, be written up in the form of a thesis, at the discretion of the instructor in charge. Fifteen hours a week.
Prerequisite: *M. E.* 101*a*. 5 *credits; 2nd semester*
(O'Bannon, Jett, Anderson, Porter, May)

102—ELEMENTS OF RECIPROCATING ENGINES. This course involves the solution of problems pertaining to the kinematics and dynamics of the reciprocating steam engine, internal combustion engines and other machinery using the elements of crank, connecting rod and crosshead. Recitation two hours a week.
Prerequisites: *E. M.* 11, 13, 16. 2 *credits; 2nd semester* (Jett)
Concurrent: *E. M.* 17.

103—ELEMENTS OF HEAT-POWER ENGINEERING. Brief general course in heat-power engineering, including elementary principles of thermodynamics and power plant equipment. Intended for architectural, civil, mining and metallurgical engineers. Recitation two hours a week.
Prerequisite: *Phys.* 2*b*. 2 *credits; both semesters* (O'Bannon, Porter)

104a—ENGINEERING THERMODYNAMICS. Fundamental principles of thermodynamics, Carnot cycle, entropy, and thermodynamic equations for gases. To be followed by M. E. 104b. Recitation two hours a week.
Prerequisites: *Phys.* 2*a; Math.* 20*a*. 2 *credits; 1st semester* (O'Bannon, Porter)

104b—ENGINEERING THERMODYNAMICS. Thermodynamics of vapors; steam power plant cycles; reciprocating steam engines and turbines. Recitation two hours a week.
Prerequisite: *M. E.* 104*a*. 2 *credits; 2nd semester* (O'Bannon, Porter)

105—STEAM POWER PLANT EQUIPMENT. Study of the characteristics and use of steam power plant equipment, including boilers, fuel-burning equipment, economizers, feed water heaters, pumps, etc. Recitation two hours a week.
Prerequisite: *M. E.* 104*b*. 2 *credits; 1st semester* (O'Bannon, Porter)

106a—HEATING AND VENTILATION. General course open to all engineers. Elementary heating calculations and description of various types of heating and ventilating systems. Recitation two hours a week.
Prerequisite: *M. E.* 104*b or* *M. E.* 103. 2 *credits; 1st semester* (O'Bannon, May)

106b—HEATING AND VENTILATION. Advanced course for mechanical engineers, with concentration on the thermodynamics of air conditioning, and the design, selection and layout of air conditioning equipment. Recitation two hours a week.
Prerequisites: *M. E.* 104*b*, 106*a*. 2 *credits; 2nd semester* (O'Bannon, May)

107—FLOW OF GASES. Derivation and use of formulas for the flow of steam and air through pipes and metering devices, using the thermodynamical method of analysis. Recitation two hours a week.
Prerequisites: *M. E.* 104*b or M. E.* 103; *E. M.* 14. 1 *credit; 2nd half 1st semester* (O'Bannon, Porter)

108—INTERNAL COMBUSTION ENGINES. A study of internal combustion engine cycles, and the thermodynamic characteristics and performance of actual engines. Recitation three hours a week.
Prerequisite: *M. E.* 104*b*. 3 *credits; 2nd semester* (O'Bannon)

109—REFRIGERATION. A study of the thermodynamics of refrigeration cycles, and the characteristics of refrigeration equipment. Recitation two hours a week.
Prerequisite: *M. E.* 104*b*. 2 *credits; 2nd semester* (O'Bannon, May)

110—HEATING AND VENTILATING DESIGN. Brief course for architectural engineers, covering the selection and layout of heating and ventilating equipment. Drawing room four hours a week.
Prerequisite or concurrent: *M. E.* 106*a*. 1.3 *credits; 2nd semester*
(O'Bannon, May)

111—ENGINEERING REPORTS. A study of the mechanical details of engineering reports; construction of charts and tables for the presentation of data; criticism of student laboratory reports; engineering specifications. Lecture and recitation two hours a week.
Concurrent: *A junior or senior course in the Engineering Laboratories.* 2 *credits; 2nd semester* (O'Bannon)

112a—MECHANICAL LABORATORY. Practice in the calibration and use of mechanical laboratory instruments and apparatus. Lecture one hour; laboratory two hours a week.
Prerequisite or concurrent: *M. E.* 104*a*. 2 *credits; 1st semester*
(Porter)

112b—MECHANICAL LABORATORY. Continuation of M. E. 112a with the addition of tests on steam engines, turbines, pumps, air compressors, etc. Lecture one hour; laboratory two hours a week.
Prerequisite: *M. E.* 112*a*. 2 *credits; 2nd semester*
Concurrent: *M. E.* 104*b*. (Porter)

113a—MECHANICAL LABORATORY. Performance tests on heating, ventilating and power plant equipment. Lecture one hour; laboratory two hours a week.
Prerequisite or concurrent: *M. E.* 105, 106*a*. 2 *credits; 1st semester*
(Porter, May)

113b—MECHANICAL LABORATORY. Continuation of M. E. 113a with the addition of tests on refrigerating machines and internal combustion engines. Lecture one hour; laboratory two hours a week.
Prerequisite: *M. E.* 113*a*. 2 *credits; 2nd semester*
Concurrent: *M. E.* 108, 109. (Porter, May, Singer)

114—MECHANICAL LABORATORY. Short course for students taking M. E. 103, following the general outline of M. E. 112 and M. E. 113. Lecture one hour; laboratory two hours a week.
Prerequisite or concurrent: *M. E.* 103. 2 *credits; 2nd semester*
(Porter, May, Singer)

Courses Open Only to Graduate Students

Prerequisite for graduate work: Students desiring to take any of the following courses should have a thorough working knowledge of Chemistry, Physics and Mathematics. For major work, a candidate must hold a bachelor's degree in Mechanical Engineering or its equivalent.

201a—AUTOMOTIVE ENGINEERING. An advanced course in the essentials of motor vehicle design, construction and operation. Drafting room, laboratory and lectures by appointment.
6 *credits; 1st semester* (Anderson)

201b—AUTOMOTIVE ENGINEERING. Continuation of 201a.
6 *credits; 2nd semester* (Anderson)

202a—HEAT-POWER PLANT ENGINEERING. Advanced work in the design, selection, layout and operation of heat-power plant equipment.
6 *credits; 1st semester* (O'Bannon, Porter)

202b—HEAT-POWER PLANT ENGINEERING. Continuation of 202a.
6 *credits; 2nd semester* (O'Bannon, Porter)

203a—HEATING, VENTILATING AND AIR CONDITIONING. Advanced work in the design, selection, layout and operation of heating, ventilating and air conditioning equipment.
6 *credits; 1st semester* (O'Bannon, May)

203b—HEATING, VENTILATING AND AIR CONDITIONING. Continuation of 203a. 6 *credits; 2nd semester* (O'Bannon, May)

204a—ADVANCED MACHINE DESIGN. The application of the principles of mechanics of materials, dynamics and kinematics to the design of complete machines. This involves a knowledge of shop practice and methods of construction. 6 *credits; 1st semester* (Jett)

204b—ADVANCED MACHINE DESIGN. Continuation of 204a.
6 *credits; second semester* (Jett)

METALLURGICAL ENGINEERING

Professor Crouse, Associate Professor Beebe, Associate Professor Emrath

26—ENGINEERING METALLURGY. This is an elementary course in metallurgy designed to acquaint the user of metals with the fundamental principles employed in the production and treatment of engineering metals and alloys, such principles being a prerequisite to an intelligent use of these materials. Lectures and recitations two hours a week.
Prerequisite: *Chem. 2b.* 2 *credits; both semesters* (Beebe)

27—GENERAL METALLURGY. This is an elementary course in general metallurgical principles together with a consideration of fuels, refractories, furnaces, pyrometry and the several alloy types. Lectures and recitations two hours a week.
Prerequisite: *Chem. 2b.* 2 *credits; 2nd semester* (Crouse)

28—METALLURGY OF COPPER AND LEAD. This course comprises a study of the principles and processes employed in the production and preparation for use of copper and lead and their alloys. Lectures and recitations two hours a week.
Prerequisite: *Met. 27.* 2 *credits; 2nd semester* (Crouse)

29—METALLURGY OF THE FERROUS METALS. This course comprises a study of the principles and processes employed in the production, treatment and preparation for use of iron and steel together with a consideration of their constitution including the iron-carbon diagram. Lectures and recitations three hours a week.
Prerequisite: *Chem. 2b* 3 *credits; 1st semester* (Beebe)

30—METALLURGY OF ALUMINUM AND OTHER NON-FERROUS METALS. This course comprises a study of the principles and processes

employed in the production and preparation for use of aluminum and other non-ferrous metals such as gold, silver, zinc, etc., and of their respective alloys. Lectures and recitations two hours a week.

Prerequisite: *Met.* 27. 2 *credits; 1st semester* (Crouse)

40—METALLURGY OF NON-METALLICS. This course comprises a study of the more common non-metallic substances utilized in industry such as carbon, lime, clay, nitrogen, etc. Lectures and recitations two hours a week.

Prerequisites: *Met.* 27; *Min.* 20. 2 *credits; 2nd semester* (Beebe)

50—INDEPENDENT WORK ON METALLURGICAL PROBLEMS. This course is designed to be elastic enough to allow the individual student to select any feasible metallurgical problem that he may desire. The problem selected must have the approval of the Head of the Department and be under the direct supervision of one of the instructors in the Department. The work will be done primarily outside of the classroom and will be independent in character except for necessary consultations with the instructor in charge.

Prerequisites: *To be determined in each case by the Head of the Department.* 3 *credits; 2nd semester* (Crouse, Beebe, Emrath)

120—ASSAYING. This course comprises the determination of the constituents of ores and metallurgical products by means of fire methods, primary attention being given to the determination of the precious metals. Laboratory eight hours a week.

Prerequisites: *Chem.* 8; *Met.* 27. 2.7 *credits; 1st semester* (Beebe)

121—FUEL AND METALLURGICAL LABORATORY. This course comprises the analytical determination of the constituents of ores and metallurgical products by both wet and dry methods as well as the determinative methods utilized in the analysis of coals and other fuels. Laboratory three hours a week.

Prerequisites: *Chem.* 8; *Met.* 27. 1 *credit; 2nd semester* (Beebe)

130—METALLURGICAL CALCULATIONS: GENERAL AND NON-FERROUS. This course comprises a study of the calculations involved in the practical application of the principles of general metallurgy and of the metallurgy of copper, lead, aluminum and other non-ferrous metals. Recitations and problems three hours a week.

Prerequisites: *Chem.* 8; *Met.* 28. 3 *credits; 1st semester* (Crouse)

131—METALLURGICAL CALCULATIONS: FERROUS. This course involves a consideration of the metallurgy of iron and steel from the standpoint of the calculations used in figuring charges, slags, heat efficiencies and similar factors. Recitations and problems two hours a week.

Prerequisites: *Met.* 29; *Met.* 130. 2 *credits; 2nd semester* (Crouse)

140—THE SCIENCE OF METALS. This is a first course in physical metallurgy and involves a consideration of the correlation of the structure of metals and alloys to their physical properties together with the effects of mechanical work and heat. Lectures and recitations three hours a week.

Prerequisites: *Phys.* 2*b*; *Chem.* 8; *Met.* 26 *or* 27. 3 *credits; 2nd semester* (Crouse)

141—METALLOGRAPHY LABORATORY. This is primarily a laboratory course in the microscopic investigation of the structure of metals and alloys. Laboratory three hours a week.
Prerequisite: *Met.* 140. 1 *credit; 1st semester* (Crouse)

142—HEAT TREATMENT. This course comprises a study of the methods used and the principles involved in the heat treatment of metals and alloys. Lectures and recitations two hours a week; laboratory two hours a week.
Prerequisites: *Met.* 29; *Met.* 141. 2.7 *credits; 2nd semester* (Crouse)

160—ORE DRESSING. This course comprises a study of the principles and practice of ore concentration processes and other processes necessary in the preparation of mineral substances for refining or use. Lectures and recitations three hours a week.
Prerequisites: *Phys.* 2*b*; *Geol.* 12; *Min.* 20; *Met.* 27. 3 *credits; 1st semester* (Emrath)

161—FLOTATION. This course comprises a study of the principles involved in concentration of ores by flotation, with some discussion of the application of these principles in practice, and the preparation of ores for such treatment. Lectures and recitations two hours a week.
Prerequisite: *Met.* 160. 2 *credits; 2nd semester* (Emrath)

162—ORE DRESSING LABORATORY. This course comprises laboratory investigation and practice in the use and design of the equipment employed in ore dressing, coal dressing and other mineral preparation processes. Laboratory two hours a week.
Prerequisite: *Met.* 160. 0.7 *credit; 2nd semester* (Emrath)

Courses Open Only to Graduate Students

Prerequisite for graduate work: Students desiring to take any of the following courses should have a thorough working knowledge of Chemistry, Physics and Mathematics. For major work, a candidate must hold a bachelor's degree in Metallurgical Engineering or its equivalent.

205—HEAT TREATMENT OF METALS AND ALLOYS. This is an advanced course in which the various factors involved in the heat treatment of metals and alloys are considered with special emphasis upon the particular metal or alloy on which the student wishes to specialize. Reference reading and laboratory work are emphasized. Lectures and recitations two hours a week; laboratory eight hours a week.
Prerequisite: *Met.* 142. 6 *credits; either semester* (Crouse)

207—TECHNOLOGY OF ALLOYS. This course comprises a study of the principles and practices used in the production of alloys of various kinds with special stress upon any particular group of alloys that the student may choose. Reference reading and laboratory work are emphasized. Lectures and recitations two hours a week; laboratory eight hours a week.
Prerequisites: *Chem.* 131*b*; *Met.* 141. 6 *credits, either semester* (Crouse)

208—ADVANCED METALLOGRAPHY. This course comprises a detailed study of the structure of metals and alloys together with their prep-

aration for study under the microscope. In addition instruction is given in the taking of microphotographs. Reference reading and laboratory work are emphasized. Lectures and recitations two hours a week; laboratory eight hours a week.

Prerequisites: *Chem.* 131*b*; *Met.* 141. 6 *credits; either semester* (Crouse)

209—ADVANCED ORE DRESSING. This course comprises a study of the technique of ore dressing plant design and gives an opportunity for original research in concentration problems. Lectures and recitations two hours a week; laboratory eight hours a week.

Prerequisites: *Met.* 161, 162. 6 *credits; either semester* (Emrath)

210—TECHNOLOGY OF LOW TEMPERATURE CARBONIZATION. This course comprises a detailed study of the principles and practices employed in the low temperature carbonization of carbonaceous materials such as bituminous and cannel coals. Reference reading and laboratory work are emphasized. Lectures and recitations two hours a week; laboratory eight hours a week.

Prerequisites: *Sufficient background in Physics, Chemistry and Metallurgy, this background to be determined by the Head of the Department after consultation with the student.* 6 *credits; either semester* (Crouse)

211—ELEMENTS OF OIL SHALE ENGINEERING. This course comprises an elementary study of the destructive distillation of oil shales for the production of oil, gas and by-products together with the history of the oil shale industry and the economic factors upon which the future development of the industry depends. Lectures and recitations two hours a week.

Prerequisites: *A sufficient background of Physics, Chemistry and Geology.* 2 *credits; either semester* (Crouse)

212—OIL SHALE TECHNOLOGY. This course involves a detailed study of the principles employed and the methods used in the production of oil from shale. Reference reading and laboratory work are emphasized. It is desirable that the student have some knowledge of physical and organic chemistry. Lectures and recitations two hours a week; laboratory eight hours a week.

Prerequisites: *Sufficient background in Chemistry and Physics; Min.* 20*; Met.* 27. 6 *credits; either semester* (Crouse)

MINING ENGINEERING

Professor Crouse, Associate Professor Emrath

20—PRINCIPLES OF MINING. This course comprises a study of the economic and scientific principles involved in the valuation, development and working of ore deposits. Lectures and recitations four hours a week.

Prerequisites: *Phys.* 2*a; Chem.* 2*b.* 4 *credits; 1st semester* (Emrath)

21—MINE SURVEYING. This course comprises classroom and field instruction in the use of instruments and in the procedure employed in mine and mineral land surveying. Lectures and recitations two hours a week; field work four hours a week.
Prerequisite: *C. E.* 12. 4 *credits; 1st semester* (Emrath)

50—INDEPENDENT WORK ON MINING PROBLEMS. This course is designed to be elastic enough to allow the individual student to select any feasible mining problem that he may desire. The problem selected must have the approval of the Head of the Department and be under the direct supervision of one of the instructors in the Department. The work will be done primarily outside of the classroom and will be independent in character except for necessary consultations with the instructor in charge.
Prerequisites: *To be determined in each case by the Head of the Department.* 3 *credits; 2nd semester* (Crouse, Emrath)

100—MINING OF UNSTRATIFIED MINERAL DEPOSITS. This course comprises a study of the methods used and the equipment involved in the mining and extraction of unstratified mineral deposits and relates particularly to the mining of metals. Lectures and recitation three hours a week.
Prerequisite: *Min.* 20. 3 *credits; 1st semester* (Emrath)

110—MINING OF STRATIFIED MINERAL DEPOSITS. This course comprises a study of the methods used and equipment involved in the mining of coal and other stratified mineral deposits. Lectures and recitations two hours a week.
Prerequisite: *Min.* 20. 2 *credits; 2nd semester* (Emrath)

111—MINE VENTILATION. This course comprises a study of the principles involved in the ventilation of underground mine workings and of the design of mechanical equipment for such purposes. Lectures and recitations three hours a week.
Prerequisites: *Phys.* 3*b*; *Min.* 20. 3 *credits; 2nd semester* (Emrath)

120—MINING GEOLOGY AND PROSPECTING. This course involves a study of the principles of economic geology, especial emphasis being placed upon the features of interest to the engineer in the economics of mine development and valuation. Lectures and recitations three hours a week.
Prerequisites: *Geology* 12 *or its equivalent; Min.* 20. 3 *credits; 1st semester* (Emrath)

121—OIL FIELD ENGINEERING. This course comprises a study of the methods and general practice usually employed in the prospecting, developing and organizing of petroleum properties for porduction purposes. Lectures and recitations two hours a week.
Prerequisites: *None.* 2 *credits; 2nd semester* (Emrath)

Courses Open Only to Graduate Students

Prerequisite for graduate work: Students desiring to take any of the following courses should have a thorough working knowledge of Chemistry, Physics and Mathematics. For major work, a candidate must hold a bachelor's degree in Mining Engineering or its equivalent.

203—MINE ORGANIZATION. This course comprises a detailed study of the structure and function of a mining enterprise from both the financial and the engineering standpoints. Lectures and recitations three hours a week. 3 *credits; either semester* (Emrath)

206—EXPLOSIVE ENGINEERING. This course comprises a study of the principles involved in the use of explosives in large scale mining and quarrying practice. Lectures and recitations two hours a week.
2 *credits; either semester* (Emrath)

207—ADVANCED PROSPECTING. This course comprises a detailed study of the principles involved in the geophysical investigation of the minerals of the earth's crust. Lectures and recitations two hours a week.
2 *credits; either semester* (Emrath)

208—COAL DUST INVESTIGATION. This course is essentially research in the design and utilization of a laboratory scale gallery for the investigation of the explosive qualities of native bituminous coals. Laboratory twelve hours a week. 4 *credits; either semester* (Emrath)

209—ADVANCED MINE ENGINEERING. This course comprises a detailed study of the procedure and methods used in collecting and recording data and engineering information involved in the systematic development and exploitation of a mining property. Lectures and recitations three hours a week; drawing and mapping eight hours a week.
7 *credits; either semester* (Emrath)

PRACTICAL MINERS' COURSE

A short course is offered for practical miners, mine foreman, and mine managers who desire to improve their knowledge of the principles that underlie correct mining. This course, which covers approximately eight weeks, is given in the summer when sufficient demand for it exists. Details concerning this course 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.

PRACTICAL MECHANICS

Mr. Thurman, Mr. Saunier, Mr. Singer, Mr. Tucker, Mr. Brend, Mr. Beckley, Mr. Kettenacker, Mr. McBee, Mr. Sturgeon Mr. Pigman, Mr. Kennard

11—WOOD SHOP. Exercises in bench work, principles and practices in lathe work, cabinet construction, proper use and care of tools. Lectures and demonstrations four hours a week.
1.3 *credits; both semesters* (Tucker, Pigman)

12—PATTERN MAKING. Planning and practices in pattern making, principles of molding. Lectures and demonstrations four hours a week.
1.3 *credits; both semesters* (Kettenacker)

13a—FOUNDRY. Practice in molding, core making, melting and casting of iron and non-ferrous metals. Lectures and demonstrations two hours a week. 0.7 *credit; both semesters* (Sturgeon, Kennard)

13b—FOUNDRY. Continuation of P. M. 13a. Lectures and demonstrations two hours a week. 0.7 *credit; both semesters* (Sturgeon, Kennard)

14—MACHINE SHOP. Lectures and demonstrations in the use of various machines, including lathes, drill presses, milling machines, grinders, shapers, planers and screw machines; also machine shop practice, the building of small machines and special equipment. Four hours a week.
1.3 credits; both semesters (Thurman, Brend, Beckley)

15—FORGE SHOP. Designing, artistic iron work, tempering of steel, heat treatment of metals, study and general practice of forge shop work, operation of trip hammers, electric welders, universal iron worker and other tools. Four hours a week.
1.3 *credits; both semesters* (Saunier, McBee)

16—ELEMENTS OF THE AUTOMOBILE. A practical course in the study of the principles and construction of the typical automobile. Four hours a week. 1.3 *credits; both semesters* (Singer)

COLLEGE OF LAW

ALVIN E. EVANS, Ph. D., J. D., Dean

INTRODUCTORY STATEMENT

HISTORY AND PURPOSE 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 scholarly 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 degrees 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 and accounting, political science and psychology. Those who would like special advice concerning their work are invited to communicate with the dean.

Combined Courses 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 toward 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.

FIRST YEAR SUBJECTS

First Semester		Second Semester	
Property I and II	4	Pleading I and II	4
Crimes I	2	Crimes II	2
Contracts I	3	Contracts II	3
Torts I	3	Torts II	3
Domestic Relations	2	Agency	2

SECOND YEAR SUBJECTS

First Semester		Second Semester	
Property III	3	Public Utilities	3
Trial Procedure I	4	Insurance	3
Constitutional Law I	2	Constitutional Law II	2
Evidence I	2	Evidence II	2
Equity I	3	Equity II	3
Legal Bibliography	1		

THIRD YEAR SUBJECTS

First Semester		Second Semester	
Corporations I	3	Corporation II	2
Credit Transactions	3	Property IV	2
Administrative Law	3	Conflict of Laws	3
Wills	3	Trusts	4
Practice Court	2	Office Practice	2
Taxation	3		

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 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, 1935, 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 1937, or if he desires to obtain both the academic and law degrees he may do so in June, 1938. This saving of nine months in the case of the law degree alone and of one year in the case of both degrees is accomplished without 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 will be offered during the usmmer of 1935.

FIRST YEAR SUBJECTS

Crimes I. Sayre's Cases. Daily. First term. Professor Randall.

Legal Ethics. Hick's Cases. Daily. First term. Professor Murray.

Crimes II. Keedy's Cases. Daily. Second term. Professor Randall.

Domestic Relations. Jacobs' Cases. Daily. Second term. Professor Moreland.

SECOND AND THIRD YEAR SUBJECTS

Municipal Corporations. Tooke's Cases. Daily. First term. Professor Evans.

Sales. Williston's Cases. Daily. First term. Professor Murray.

Quasi-Contracts. Thurston's Cases. Daily. First term. Professor Evans.

Taxation. Magill & Maguire's Cases. Daily. Second term. Professor Roberts.

Industrial Relations. Albertsworth's Cases. Daily. Second term. Professor Moreland.

Insurance. Goble's Cases. Daily. Second term. Professor Roberts.

The following courses in the College of Law are accepted as graduate work when taken by students majoring in Political Science, Economics, Sociology, Commerce or other fields in which such courses are recommended by the major professors:

105—AGENCY. Keedy's Cases.
2 *credits; 2nd semester* (Moreland)

106a-106b—CIVIL PROCEDURE I AND II. Sunderland's Cases.
3 *credits; 1st and 2nd semesters* (Randall)

164—CONFLICT OF LAWS. Lorenzen's Cases. (3d ed.)
3 *credits; 2nd semester* (Eblen)

161a-161b—CONSTITUTIONAL LAW I AND II. Dodd's Cases.
2 *credits; 1st and 2nd semesters* (Eblen)

101a-101b—CONTRACTS I AND II. Williston's Cases.
3 *credits; 1st and 2nd semesters* (Murray)

107a-107b—CRIMINAL LAW I AND II. Sayre's Cases.
2 *credits; 1st and 2nd semesters* (Moreland)

121a-121b—EQUITY I AND II. Chafee and Simpson's Cases; Chafee and Pound's Cases on Equitable Relief Against Torts, Volumes 1 and 2.
3 *credits; 1st and 2nd semesters* (Moreland)

124a-124b—EVIDENCE I AND II. Hinton's Cases.
2 *credits; 1st and 2nd semesters* (Randall)

123—NEGOTIABLE INSTRUMENTS. Britton's Cases.
[GIVEN ALTERNATE YEARS.] 3 *credits; 2nd semester* (Roberts)

125a—PRACTICE COURT. Selected Cases.
2 *credits; 1st semester* (Randall)

160a-160b—PRIVATE CORPORATIONS I AND II. Casebook to be selected. Three hours a week first semester; two hours a week second semester. 3 *credits; 1st semester*
2 *credits; 2nd semester*
(Evans)

104a—PROPERTY I (Personal Property) and II (Real Property). Warren's Cases. 4 *credits; 1st semester* (Roberts)

122—PROPERTY III. Titles and Conveyancing. Warren's Cases.
[GIVEN ALTERNATE YEARS.] 3 *credits; 1st semester* (Murray)

162—PROPERTY IV. Future Interests. Powell's Cases.
[GIVEN ALTERNATE YEARS.] 2 *credits; 2nd semester* (Roberts)

166—SALES. Williston's Cases. 3 *credits; 2nd semester* (Murray)

102a-102b—TORTS I AND II. Ames and Smith's Cases (Pound's Edition). 3 *credits; 1st and 2nd semesters* (Eblen)

120a—TRIAL PRACTICE I AND II. Sunderland's Cases.
2 *credits; each semester* (Randall)

165—TRUSTS. Scott's Cases. 4 *credits; 2nd semester* (Evans)

163—WILLS AND THE ADMINISTRATION OF ESTATES. Warren's Cases. 3 *credits; 1st semester* (Evans)

ELECTIVE SUBJECTS OPEN TO SECOND AND THIRD YEAR STUDENTS

168—ADMINISTRATION OF THE CRIMINAL LAW. Keedy's Cases. The arrest; the use of force; police officers; the "third degree"; search and seizure; jurisdiction; venue; extradition; proceedings before magistrate; grand jury; indictment; prosecuting attorney arraignment; plea; trial proceedings subsequent to trial; modes of review; punishment. Special study of the jury. 2 *credits; 2nd semester* (Moreland)

167—ADMINISTRATIVE LAW. Freund's Cases on Administrative Law (2nd edition). This course deals with the nature and extent of administrative law; the constitutional limitations, procedural and substantive; legal and equitable relief against administrative action and extraordinary legal remedies.
[GIVEN ALTERNATE YEARS.] 3 *credits; 1st semester* (Black)

146—CREDITORS' RIGHTS. Hanna's Cases.
3 *credits; 2nd semester* (Roberts)

154—DAMAGES. Beale's Cases.
2 *credits; summer session* (Randall)

148—DOMESTIC RELATIONS. Jacobs' Cases.
2 *credits; 2nd semester* (Moreland)

142—INDUSTRIAL RELATIONS. Albertworth's Cases.
[GIVEN ALTERNATE YEARS.] 2 *credits; summer session* (Moreland)

145—INSURANCE. Goble's Cases.
2 *credits; summer session* (Roberts)

150—INTERNATIONAL LAW. Evans' Cases.
2 *credits; 1st semester* (Vandenbosh)

169—LAW OF THE AIR. Selected cases and readings. The course will deal principally with aircraft law as follows: Proprietary rights in air space at common law, federal and state statutes, tort liability, criminal responsibility, aircraft as common carriers, the rules of the road, international aspects of air law, legislation for future development of air law.
2 *credits; 1st semester* (Randall)

144—LEGAL BIBLIOGRAPHY. Selected problems. Eldean's Finding the Law. 1 *credit; 1st semester* (Roberts)

170—LEGAL ETHICS. Organization and Ethics of Bench and Bar—Hicks. The organization of the legal profession, qualifications, admission to the Bar, discipline, duty toward the courts and toward clients, solicitation and advertising, ethical duties in civil and in criminal cases, pecuniary relations of lawyers and clients. 2 *credits; summer session* (Murray)

143—MORTGAGES. See Credit Transactions.

149—MUNICIPAL CORPORATIONS. Tooke's Cases.
2 *credits; summer session* (Evans)

152—OIL AND GAS. Kulp's Cases.
2 *credits; summer session* (Moreland)

141—PARTNERSHIP. Crane and Magruder's Cases.
3 *credits; 2nd semester* (Roberts)

150—PUBLIC UTILITIES. Robinson's Cases.
3 *credits; 2nd semester* (Roberts)

147—QUASI-CONTRACTS. Thurston's Cases.
2 *credits; summer session* (Evans)

171—RESEARCH IN THE RESTATEMENT OF THE LAW OF CONTRACTS. (By appointment.) 3 *credits; summer session* (Murray)

153—TAXATION. Magill & Maguire's Cases.
3 *credits; 2nd semester* (Eblen)

174—CREDIT TRANSACTIONS. Hanna's Cases on Security. This course deals with real estate mortgages, suretyship, pledges, chattel mortgages, the distribution of stocks and bonds, problems of collateral banking and agricultural finance. 3 *credits; 1st semester* (Roberts)

175—OFFICE PRACTICE. No text. Drawing of deeds, contracts, leases and other papers frequently prepared; probate proceedings; examination of abstracts of title to real estate; articles of incorporation; pleadings in uncontested actions, e. g., quieting title and foreclosure of mortgages; attachment proceedings; acquaintance with records of the clerks of the several courts in this county; preparation of cases for trial; securing and retaining a clientele, principles of office management, e. g., the record of finance of the office, proper charges for work done, economy of time, comprehensive filing and records. 2 *credits; 2nd semester* (Randall)

177—STATUTORY INTERPRETATION. de Sloovere's Cases.
2 *credits; summer session* (Murray)

176—TRADE REGULATION. Oliphant's Cases.
2 *credits; summer session* (Evans)

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 elementary education do their observation, participation and directed teaching in the University Elementary School. Students in secondary education do their observation, participation and directed teaching in the University High 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 and home economics 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 board of Versailles that makes possible splendid facilities for observations and practice in home economics. The students in both agriculture and home economics work under skilled supervisors in their respective fields.

TEACHERS' CERTIFICATES

The University of Kentucky offers training for all certificates issued by the State Department of Education in accordance with the new school code adopted by the general assembly of 1934. Programs of training that prepare especially for superintendents, principals, elementary school teachers, high school teachers, supervisors, attendance officers, and other administrative, supervisory, and instructional employees, will be offered through the programs of the College of Education at the University.

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 Agriculture, Engineering or Home Economics will be entitled to consideration for the degree of Bachelor of Science in Education.

REQUIREMENTS FOR HIGH SCHOOL TEACHERS

	Credits
1. General Requirements	
English	12
Science, Selected from Biology, Chemistry, General Science, Geology, Physics	12
Mathematics (exclusive of Arithmetic) or	6
Foreign Language*	6 to 12
Social Science, Selected from Economics, Government, History, Sociology	12
Psychology	3
Hygiene 9, Hygiene for Teachers	2
Physical Education 1a-b	1.4
Military Science 1a-b, 6a-b	5.6
Total	54 to 60
2. Teaching Majors	
First Teaching Major	24–48
Second Teaching Major	24–48
3. Professional Major	
†Education 1, Psychology of Study	3
Education 35, Survey of Education	3
Education 16, Educational Psychology	3
Education 122, Tests and Measurements	3

* If three units or more of a foreign language are offered for admission six semester hours in the same language will be required, if two units are offered nine will be required, if one unit or less is offered twelve will be required.

† Students in the College of Arts and Sciences may substitute Education 105, Technique of Teaching, for Education 1, Psychology of Study.

Education 101, School Organization	3
Directed Teaching	6
Total	21

4. TOTAL CREDITS REQUIRED 127

The high school pupils of Kentucky will not be efficiently taught until the teachers are offering instruction in the subjects of their major interests 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
13. Business Subjects and English
14. Business Subjects and Social Studies
15. Physical Education and Athletic Coaching

REQUIREMENTS FOR TEACHING MAJORS

AGRICULTURE

A minimum of 62 semester hours including production courses in all phases of agriculture.

ART

A minimum of 36 semester hours including courses in public school art.

BIOLOGICAL SCIENCES

A minimum of 30 semester hours including: botany 12 semester hours, zoology 12 semester hours, physiology and hygiene 6 semester hours, with an additional 10 hours either in chemistry or physics.

COMMERCIAL SUBJECTS

A minimum of 45 semester hours including adequate preparation for junior business training, salesmanship, shorthand, typewriting, and office practice.

ENGLISH

A minimum of 30 semester hours including at least 6 hours in English composition, grammar and English usage, 6 hours in English literature, 6 hours in American literature, and 6 hours in dramatic and public speaking.

FRENCH

Twenty-four semester hours.

HOME ECONOMICS

A minimum of 48 semester hours including adequate preparation in foods, clothing, child care and home management.

LATIN

Twenty-four semester hours.

MATHEMATICS

Twenty-four semester hours including courses in college algebra, plane trigonometry, solid geometry, and analytics and at least 5 semester hours in applied mathematics which may include arithmetic, graphic methods, statistical methods, and mathematics of finance.

MUSIC

A minimum of 48 semester hours including the courses necessary for the preparation of a teacher of music in the public schools.

PHYSICAL EDUCATION AND HEALTH

A minimum of 45 semester hours, 30 of which must be in the field of physical education, 6 in anatomy and physiology, and 6 in hygiene and public health and 3 in child psychology.

PHYSICAL SCIENCES

A minimum of 18 semester hours in physics and 18 semester hours in chemistry with an additional 10 hours in the field of biological sciences.

SOCIAL STUDIES

A minimum of 48 semester hours, 12 of which shall be in American history, 12 in European history, 12 in politicial science, 6 in economics, and 6 in sociology.

COURSES RECOMMENDED FOR A MAJOR IN ENGLISH

	Credits
FIRST YEAR	
English 1a-b, English Composition	6
SECOND YEAR	
English 3a-b, History of English Literature	6
English 6a-b, Public Speaking	4
THIRD YEAR	
English 34a-b, Dramatic Production	4*
Journalism 21, Etymology (English Word Study)	3
Journalism 111, Verbal Criticism	3
English (Elective)	6
FOURTH YEAR	
English 123a-b, American Literature	6
English 7a, Public Speaking	3
English (Elective)	3

* Note.—Only one semester required.

COURSES RECOMMENDED FOR A MAJOR IN FRENCH

	Credits
FIRST YEAR	
French	6
SECOND YEAR	
French	6
THIRD YEAR	
French	6
Romance Languages 8a, French Phonetics	3
FOURTH YEAR	
Romance Languages 113a-b, French Composition	6
French Electives	6

Note.—French majors should consult with their advisers in order to avoid duplicating any course that has been taken in high school.

COURSES RECOMMENDED FOR A MAJOR IN LATIN

	Credits
FIRST YEAR	
Latin	6
SECOND YEAR	
Latin	6
THIRD YEAR	
Ancient Languages 109a-b, Latin Literature	6
Ancient Languages 121, Survey of Roman Civilization	3
FOURTH YEAR	
Ancient Languages 114a-b, Latin Composition	2
Latin Electives	6

Note.—Latin majors should consult with their advisers in order to avoid duplicating any course that has been taken in high school.

COURSES RECOMMENDED FOR A MAJOR IN MATHEMATICS

	Credits
FIRST YEAR	
Mathematics 17, College Algebra	3
Mathematics 18, Plane Trigonometry	2
Mathematics 2, Solid Geometry	3
SECOND YEAR	
Mathematics 19, Analytic Geometry	3
Mathematics 20a, Differential Calculus	4
THIRD YEAR	
Mathematics 20b, Integral Calculus	4
Mathematics 14, Mathematics of Finance	5
FOURTH YEAR	
Mathematics 119, Modern Geometry	3
Mathematics 103, Theory of Equations	3

COURSES RECOMMENDED FOR A MAJOR IN THE BIOLOGICAL AND PHYSICAL SCIENCES

	Credits
FIRST YEAR	
Chemistry 1a-b, General Inorganic Chemistry	10
Botany 7a-b, General Botany	6
Mathematics 2, Solid Geometry	3
Mathematics 17, College Algebra	3
SECOND YEAR	
Zoology 1a-b, General Zoology	8
Chemistry 8, Quantitative Analysis	5
Chemistry 7, Organic	4
Mathematics 18, Plane Trigonometry	2
Mathematics 19, Analytic Geometry	3
THIRD YEAR	
Physics 1a-b, General Elementary Physics	10
Botany 19, Dendrology	2
Botany 15, Local Flora	3
Zoology 102, Ornithology	3
Zoology 108a-b, Principles of Zoology	4
FOURTH YEAR	
Physics 3a-b, General College Physics	8

COURSES RECOMMENDED FOR A MAJOR IN THE SOCIAL SCIENCES

	Credits
FIRST YEAR	
History 5a-b, History of the United States	6
Political Science 51, American Government	3
History 1a, History of the Ancient World	3
SECOND YEAR	
Sociology 1a-b, Principles of Sociology	6
History 4a-b, History of Modern Europe	6
THIRD YEAR	
Political Science 155a-b, Comparative Government	6
Economics 1a-b, Principles of Economics	6
History 105, Colonial America	3
History 106, Latin America	3
FOURTH YEAR	
History 166, Division and Reunion	3
History 147, Recent History of the United States	3

SUGGESTED CURRICULUM FOR COMMERCIAL TEACHERS

	Credits
FIRST YEAR	
Commerce 2, Economic History of Europe	3
Commerce 3, Economic History of the U. S.	3
Sociology 1a or 1b, Principles of Sociology	3
SECOND YEAR	
Commerce 1, Principles of Economics	3
Commerce 8, Economic Geography	3
Commerce 9, Forms of Business Organization	3
Commerce 7a-b, Principles of Accounting	8
Political Science 51, American Government	3
English 3a-b, History of English Literature	6
THIRD YEAR	
Education 159, The Commercial Curriculum	3
Commerce 10, Principles of Marketing	3
or	
Commerce 11, Salesmanship	2
Commerce 105, Money and Banking	3
Commerce 117, Corporation Finance	3
English 30, Business English	2
Commerce 13a-b, Secretarial Practice	10
FOURTH YEAR	
Commerce 15, Economic Problems	3
Commerce 109a-b, Business Law	6
Commerce 14a-b, Office Management	6
Education 158a, Methods of Teaching Secretarial Subjects	2
Education 158b, Methods of Teaching Accounting	2

Note.—The prospective teacher is encouraged to elect as many courses in English as possible. Changes may be made in this curriculum with the advice and consent of the Head of the Department of Commercial Education so as to prepare for teaching specific combinations.

COURSES RECOMMENDED FOR A MAJOR IN PHYSICAL EDUCATION

	Credits
FIRST YEAR	
Physical Ed. 1a-b, Gymnasium Practice	1.4
Physical Ed. 20, Calisthenics and Gymnastic Stunts	4
Physical Ed. 29, Practice of Organized Play	2
SECOND YEAR	
Physical Ed. 2a-b, Advanced Gymnasium Practice	1.4
Physical Ed. 36, Basketball and Football Fundamentals	4
Physical Ed. 50, Track and Field Athletics	4
THIRD YEAR	
Physical Ed. 124, History and Philosophy of Physical Education	2
Physical Ed. 128, School Programs of Physical Education	3
FOURTH YEAR	
A minimum of nine hours credit from the following courses:	
Physical Ed. 70, Training and First Aid	1
Physical Ed. 120, Physical Diagnosis and Remedial Gymnastics	3
Physical Ed. 142, Advanced Football	2
Physical Education 131, Advanced Basketball	2
Physical Education 125, Organization and Administration of Municipal and Community Recreation	3
Physical Ed. 148, Organization and Administration of Athletics	3

Note.—In addition to the above, the following academic courses are recommended:

Anatomy and Physiology 2a-b, Anatomy and Physiology for Physical Education Majors	6
Hygiene 100a-b, Public Health	6
Psychology 7, Psychology of the Child	3

CURRICULUM FOR TEACHERS OF HOME ECONOMICS

FRESHMAN YEAR

First Semester	Crs.	Second Semester	Crs.
Art 2a, Art Structure	2	Art 2b, Art Structure	2
H. E. 26, Textiles	2	H. E. 6b, Foods	3
H. E. 6a, Foods	3	Chemistry 1b, Gen. Inorganic	5
Chemistry 1a, Gen. Inorganic	5	Physics 51b, Gen. Physics	3
Physics 51a, General Physics	3	H. E. 29, Costume Design	3
Ph. Ed. 1a, Physical Educa.	.7	Ph. Ed. 1b, Physical Educa.	.7
Freshman Assembly	.3		
	16		16.7

SOPHOMORE YEAR

First Semester	Crs.	Second Semester	Crs.
English 1a, Composition	3	Anat. and Physiology 3	4
Chemistry, 7, Organic	4	English 1b, Composition	3
Psychology 1	3	Clothing 47, Adv. Cloth.	3
Clothing 46	3	Economics 1, Prin. of Econ.	3
Eng. 6, The Essentials of Speech	2	Ph. Ed. 2b, Physical Educa.	.7
or		Psychology 7, Child Psy.	3
Journalism 1a	3		
Ph. Ed. 2a, Physical Edu.	.7		
Sophomore Assembly	.3		
	16 or 17		16.7

JUNIOR YEAR

First Semester	Crs.	Second Semester	Crs.
H. E. 3, Foods and Nutrition	4	H. E. 115, Child Care and Development	3
H. E. 45a, Housing	3	H. E. 124, Dietetics	4
H. E. 17, Food Sources and Costs	3	H. E. 43b, Interior Decoration	3
Junior Assembly	.3	English 3b, Eng. Literature	3
Ed. 147—Foundations of Secondary Education	3	Ed. 160, Technique of Teaching Home Economics	3
Bacteriology 52	4	Elective	2
	17.3		18

SENIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Ed. 160 (if not taken previously)	3	†H. E. 142, Home Management and Family Relations	5
Home Hygiene	2	†Ed. 162, Directed Teaching in Home Econ.	6
*H. E. 142, Home Management and Family Relations	5	Sociology 1, Prin. of Soc.	3
*Ed. 162, Directed Teaching in Home Econ.	6	Electives	2 or 11
Ed. 101, School Organization	3		
Electives	0 or 11		
	16		16

* May be taken either semester.
† May be taken either semester.

SUGGESTIVE ELECTIVES

	Crs.
Ed. 165—Problems in Vocational Education	3
Ed. 122—Tests and Measurements	3
H. E. 112—Public School Nutrition	3
H. E. 181—Institution	3
H. E. 121—Problems in Textiles	3
H. E. 116—Advanced Costume Design	3
Eng. 6—Public Speaking	3

CURRICULUM FOR MEN PREPARING TO TEACH VOCATIONAL AGRICULTURE

FRESHMAN YEAR

First Semester	Crs.	Second Semester	Crs.
*A. I. 21, Market Classes and Grades of Livestock	2	*A. I. 17, Breeds of Livestock	3
*A. I. 22, Farm Poultry Production (1st half sem.)	2	*Chem. 1a, General Inorganic Chemistry	5
*A. I. 23, Elements of Dairying (2d half semester)	2	*Botany 7b, Gen. Morphology	3
*Agronomy 11, Farm Crops	3	*English 1b, English Comp.	3
*Botany 7a, Gen. Morphology	3	*Mil. Sc. 1b, First Year Basic	1.3
*English 1a, English Comp.	3	*Ph. Ed. 1b, Gymnasium	.7
*Mil. Sc. 1a, First Year Basic	1.3		
*Ph. Ed. 1a, Gymnasium	.7		
*Freshman Assembly	.3		
	17.3		16

SOPHOMORE YEAR

First Semester	Crs.	Second Semester	Crs.
*Chem. 1b, General Inoganic	5	*Bact. 52, Principles of Bacteriology	4
*Econ. 1, Principles of Econ.	3	*Geol. 3, Elements of Geology	3
*Hort. 1, General Hort.	4	*Farm Econ. 4, Agricultural Economics	3
*Farm Engr. 10, Mech. of the Farmstead	3	*A. I. 20, Prin. of Animal Nutrition	3
*Mil. Sci. 6a, Second Year Basic	1.5	*Agron. 1, Soils	4
		*Mil. Sci. 6b, Second Year Basic	1.5
	16.5		18.5

JUNIOR YEAR

First Semester	Crs.	Second Semester	Crs.
*Farm Ec., General Farm Mgt.	3	*Educ. 16, Educational Psychology	3
*Mkts. and Rur. Fin. 108, Marketing	3	*Zool. 25, General Animal Biology	3
*Farm Engr. 8, Fm. Struc. Engr.	4	Hort. 110, Vegetable Gardening	3
A. I. 19, Genetics	3	A. I. 107, Sheep Production	3
Agron. 115, Soil Management	3	A. I. 13, Livestock Judging	2
A. I. 106, Pork Production	3	Agron. 23, Plant Pathology	4
		Agron. 105, Advanced Crops	3
		Agrl. Ent. 102, Adv. Agrl. Entomology	3
		Hort. 113, Landscape Gardening	3
	19		18

SENIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Farm. Ec. 120, Rur. Com. Problems	3	Educ. 122, Tests and Meas. for High Schol Teachers	3
A. I. 102, Farm Butch. and Curing of Meats	4	A. I. 105, Beef Production	3
Agron. 113, Meth. and Results in Agron. Experiment	3	A. I. 134, Adv. Poultry Production	3
Hort. 105, Small Fruits	2	A. I. 116, Diseases of Dom. Animals	4
*Agrl. Educ. 181, Teach. Voc. Ag. (either sem.)	7	A. I. 125, Dairy Cattle Feed. and Mgt.	3
Jour. 1a, Reporting	3	*Agrl. Educ. 181, Teach. Voc. Ag. (either sem.)	7
Markets and Rur. Fin. 111, Agrl. Prices	3		
Student Load	17-20	Student Load	17-20

*Note.—Starred courses are required of students planning to teach vocational agriculture. The student should take as many of the unstarred courses as his time and ability permit. Students who become teachers are required to take Ag. Ed. 179, Determining Course-Content in Vocational Agriculture, which is offered the first two-and-one-half weeks of the summer school. Including Ag. Ed. 179, the student must present at least 15 credits in education.

SUGGESTED CURRICULUM FOR TEACHER-LIBRARIANS

FRESHMAN YEAR

First Semester	Crs.	Second Semester	Crs.
English Compositon	3	English Composition	3
Introduction to Mod. Europe	3	Introduction to Mod. Europe	3
Psychology of Study	3	Survey of Education	3
Problems of Citizenship	3	American Government	3
Journalism	3	Journalism	3
Hygiene for Teachers	2	Music Appreciation	2
Physical Education	.7	Physical Education	.7
	17.7		17.7

SOPHOMORE YEAR

First Semester	Crs.	Second Semester	Crs.
English Literature	3	English Literature	3
History of the U. S.	3	History of the U. S.	3
Educational Psychology	3	Individual Development	3
Com. 2 (Econ. Hist. of Europe)	3	Economic History of the U. S.	3
Science	3 or 4	Science	3 or 4
Art Appreciation	1	Art Appreciation	1
	16 or 17		16 or 17

JUNIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Tests and Measurements	3	English 110b (Shakespeare)	3
School Organization	3	English 123b (American Lit.)	3
English 110a (Shakespeare)	3	Technique of Teaching	3
English 123a (American Lit.)	3	Teaching Lit. to Children	3
Electives	6*	L. S. 132 (Libr. Work with Children)	2
	18		14

SENIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Library Science	15	Library Science	10
		Directed Teaching	5
			15

* Electives may be chosen from the following: English 111b, 130a, b; History 119b, 120, 126, 130, 147; Political Science 101, 102, 155a, b, 165; Sociology 5, 112; Philosophy 101a, b; Public Speaking 7a; Journalism 12.

CURRICULUM FOR HIGH SCHOOL PRINCIPALS AND FOR SUPERINTENDENTS

GRADUATE YEAR*

	Credits
Education 212, The Elementary School	3
Education 214, The Secondary School	3
Education 222a-b, Thesis Course	6
Education 202, Local School Administration	3
Education 223, Educational Statistics	3
Education 225, Supervision of Instruction	3
Education 227, Curriculum Construction	3
Electives	6

* Differentiation between the two curricula lies in the electives.

If graduate work in another institution has covered any of the courses named, substitution of other courses may be made.

THE TRAINING AND CERTIFICATION OF ELEMENTARY TEACHERS

Degree of Bachelor of Arts in Education

Requirements for a 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 30 semester hours must be in courses numbering above 100.

Any student reported deficient in spelling, penmanship, or English fundamentals by her critic teacher will be required to take extra work to make up this deficiency.

SUGGESTED CURRICULUM FOR TRAINING ELEMENTARY TEACHERS

FRESHMAN YEAR

First Semester	Crs.	Second Semester	Crs.
Eng. 1a, English Composition	3	Eng. 1b, English Composition	3
Hist. 5a, History of U. S.	3	Hist. 5b, History of U. S.	3
P. S. 15, Problems of Citiz.	3	Psych. 1, Elem. Psychology	3
Hygiene 9, Hygiene	2	Art 10, Public School Art	2
Mus. 4a, Music in Prim. Grs.	2	Music 4b, Music in Int. Grs.	2
P. E. 1a, Physical Educa.	.7	P. E. 1b, Physical Educa.	.7
Ed. 35, Introduction to Ed.	3	Ed. 42, Teach. of Arithmetic	3
	16.7		16.7

SOPHOMORE YEAR

First Semester	Crs.	Second Semester	Crs.
Eng. 3a, Survey of Eng. Lit.	3	Eng. 3b, Survey of Eng. Lit.	3
Geol. 24a, Elements of Geog.	3	Geol. 24b, Elements of Geog.	3
Psych. 7, Child Psychology	3	P. E. 14, Plays and Games	1
Ed. 20, Industrial Arts in the Elementary School	2	Ed. 173, Children's Literature	3
Ed. 44, Fundamentals of Elem. Education	5	Ed. 6, Practical Teaching (This course is omitted by students who do not plan to teach until completion of four-year course)	3
		Science	3
	16		16

JUNIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Hist. 4a, Hist. Mod. Europe	3	Hist. 4b, Hist. Mod. Europe	3
Ec. 15, Economic Problems	3	Soc. 1b, Prin. of Sociology	3
H. E. 16, Elem. Nutrition	3	Zool. 11, Nature Study or Biology	3
Hist 40, Hist. of Kentucky	2	Hyg. 110, Health Education	3
Ed. 172, Teaching of Reading	3	Electives	4
Electives	2		
	16		16

SENIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Ed. 118, Tests and Meas. for Elem. Teachers	2	Science (Ed. 196 may be taken for this requirement)	3
Ed. 133, Directed Teaching in the Elem. Grades	10	Zool. 108b, Heredity	2
(The student may take only 6 crs. in addition to Ed. 133 and these classes must come either at the first hours or late afternoon.)		Art	2
Students having Ed. 6 take Ed. R133, 5 crs.		Science	3
Electives	4	Electives	6
	16		16

Kindergarten majors omit Ed. 42 and Music 4b and add:

Ed. 174—Pre-School Theory and Management.
Ed. 176—Pre-School Organization and Teaching.

It is suggested that not more than 40 hours of Education be offered by any student for credit.

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 continuation 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.

ADMINISTRATION

101—SCHOOL ORGANIZATION. A course designed to familiarize the prospective teacher with those activities of school organization and administration in which she may be expected to participate. Topics emphasized are administrative control, selection of teachers, tenure, loads, salaries, retirement, supervision, classification and promotion, attendance, community relationships, and professional ethics.
Prerequisite: *Education* 16. 3 *credits; both semesters and both summer terms* (Chamberlain)

198—THE ADMINISTRATION OF PUPIL PERSONNEL. This course deals with the school census, enforcement of attendance, personnel records, marking, pupil progress, and classification. The course is designed primarily for prospective superintendents and attendance officers.
3 *credits; summer session only*

202—LOCAL SCHOOL ADMINISTRATION. A general course in public school administration for the prospective superintendent of a county or city school system. The course deals with the state as an educational agency, the local school district, the board of education, the superintendent, the internal organization for the administration of a school system, problems of the teaching personnel, problems of pupil personnel, business management, finance and accounting, the curriculum, school building planning and management, and the supervision of instruction. This is one of the basic courses in school administration and should be taken at or near the beginning of the student's graduate program.
Prerequisite: *Graduate standing.* 3 *credits; 2nd semester and summer session* (Hill)

203—CONSTITUTIONAL AND LEGAL BASIS OF PUBLIC SCHOOL ADMINISTRATION. A study of court decisions in order to discover the legal principles involved in practical problems of school administration. Topics: The school and the state; school districts; school officers; relations of school districts and municipalities; authority of school districts and district officers; school board procedure and records; tort liability of school districts; personal liability of school officers; contractural authority and liability of boards of education; school money; the school debt; acquisition and use of school property; employment and dismissal of teachers; school attendance; rules and regulations of school boards; discipline and punishment of pupils; textbooks and studies.
Prerequisite: *Education* 202 *or* 213 *or* 232. 3 *credits; 2nd semester and summer session* (Ligon)

204a—THE ADMINISTRATION OF HIGHER EDUCATION. This course deals with the following topics: Problems relating to the organization and administration of universities, colleges, and teacher training institutions; financial problems of higher institutions; professional duties of regstrars, deans, and business managers.
Prerequisite: *Graduate standing.* 3 *credits; summer session* (McVey)

204b—THE ADMINISTRATION OF HIGHER EDUCATION. A continuation of Education 204a.
Prerequisite: *Graduate standing.* 3 *credits; summer session* (McVey)

206—PROBLEMS OF COLLEGE TEACHING. This course covers among others the following topics: Methods commonly used in college teaching; bases for measuring instruction; marking systems; qualifications for college teaching; and efforts being made to improve college instruction.
Prerequisite: *Graduate standing.* 3 *credits; 2nd semester* (Taylor)

207—SCHOOL BUILDINGS AND EQUIPMENT. The major topics considered are the measurement and evaluation of existing building facilities, planning new school buildings, financing the building program, and building operation and maintenance. The student should have had considerable graduate work in education before enrolling in this course.
Prerequisite: *Education* 202 *or its equivalent.* 3 *credits; summer session only* (Chamberlain)

210—SPECIAL PROBLEMS IN SCHOOL ADMINISTRATION. An independent work course for students doing their first year of graduate work in education.
Prerequisite: *Ed.* 101 *or* 202. 3 *credits; both semesters* (Chamberlain)

211—THE ADMINISTRATION OF VOCATIONAL EDUCATION. A course designed for superintendents and principals of high schools. The purpose of the course is to train for administering and supervising vocational education. Topics emphasized include aims and purposes of vocational education, relationship of vocational to other education, financing vocational education, and relationship of local and state administration.
Prerequisite: *Graduate standing.* 3 *credits; summer session* (Hammonds)

212—THE ELEMENTARY SCHOOL. (For description see Elementary Education, page 262.)

213—STATE SCHOOL ADMINISTRATION. The administration of American education from the standpoint of the federal and state governments. The course deals with federal relations to education, the state as an educational agency, local units for the administration of education, the scope of the school system, state school support, state control of the material environment and equipment, the training and certification of teachers, and teachers' contracts, tenure and retirement.
Prerequisite: *Graduate standing.* 3 *credits; 2nd semester and summer session* (Chamberlain)

214—THE SECONDARY SCHOOL. (For description see Secondary Education, page 266.)

225—SUPERVISION OF INSTRUCTION. Topics considered are the development of supervision, purpose of supervision, organization for supervision, planning supervision, use of classroom visitation and demonstration lessons, use of teachers' meetings and individual conferences, use of the course of study, use of tests and measurements, equipment and supplies, the teacher, and the pupil. The student should have had Education 202 or its equivalent before enrolling in this class.
Prerequisite: *Graduate standing.* 3 *credits; 1st semester and summer session* (Hill)

231—FINANCING PUBLIC EDUCATION. Topics covered are budgetary procedure, school costs, school indebtedness, state finance, fiscal reports, and accounting procedures. These topics are treated primarily from the viewpoint of the superintendent of schools. The student should have had Education 202 or its equivalent before enrolling in this class.
Prerequisite: *Graduate standing.* 3 *credits; 1st semester and summer session* (Hill)

232—HIGH SCHOOL ADMINISTRATION. A course designed primarily for high school principals and prospective administrators. Topics emphasized are secondary school organization, the principal, the staff, the pupil, program of studies, schedules, community relationships, records and reports, articulation, library, plant, finance, and the aims of secondary education.
Prerequisite: *Graduate standing.* 3 *credits; 1st semester and summer session* (Ligon)

290a—TECHNIQUE AND PROFESSIONAL WORK OF THE REGISTRAR. A comprehensive study of admissions including the literature, history and present-day tendencies; the rules of the University; recommendations of the American Association of Collegiate Registrars; special problems in the administration of the office. Limited to six students. Lecture 1 hour, laboratory 2 hours a week.
Prerequisite: *Consent of instructor.* 2 *credits; 1st semester* (Gillis)

290b—TECHNIQUE AND PROFESSIONAL WORK OF THE REGISTRAR. A comprehensive study of permanent records and transcripts, including the history, literature and present day tendencies; rules of the University; recommendations of the American Association of Collegiate Registrars. Special problems in the administration of the office. Limited to six students. Lecture 1 hour; laboratory 2 hours a week.
Prerequisite: Consent of instructor. 2 *credits; 2nd semester* (Gillis)

291a, b and c—PROBLEMS IN THE REGISTRAR'S FIELD OF ADMINISTRATION. Independent work. The purpose of the course is to give experience and training in the analysis and interpretation of data; organization of source material, so as to make the office an effective laboratory for the study of problems in administration and education. A committee will conduct the final oral examination to determine the administrative value of the study.
Prerequisites: Ed. 290a and b or equivalent. 2 *credits; both semesters* (Gillis)

301a-b—RESEARCH PROBLEMS IN EDUCATION ADMINISTRATION. This is an independent work course for students who have completed the master's degree or its equivalent.
Prerequisite: M. A. degree or equivalent. 3 *credits; both semesters* (Chamberlain)

307a-b—RESEARCH PROBLEMS IN SECONDARY EDUCATION. This is an independent work course for students who have completed the master's degree or its equivalent.
Prerequisite: M. A. degree or equivalent. 3 *credits; both semesters* (Ligon)

308a-b—RESEARCH PROBLEMS IN ELEMENTARY EDUCATION. This is an independent work course for students who have completed the master's degree or its equivalent.
Prerequisite: M. A. degree or equivalent. 3 *credits; both semesters* (Duncan)

321a-b—RESEARCH PROBLEMS IN HIGHER EDUCATION. This is an independent work course for students who have completed the master's degree or its equivalent.
Prerequisite: M. A. degree. or equivalent. 3 *credits; both semesters* (Taylor)

AGRICULTURAL EDUCATION

179—DETERMINING CONTENT IN VOCATIONAL AGRICULTURE. Interpreting data as a basis for course building. Working out the content of a four-year course in vocational agriculture.
3 *credits; summer session* (Hammonds)

181—TEACHING VOCATIONAL AGRICULTURE. Designed to prepare men for the teaching of agriculture. About one half of the course is practice.
7 *credits; both semesters*
(Hammonds, Woods and Armstrong)

280—METHOD IN TEACHING VOCATIONAL AGRICULTURE. The principles of method are applied to the teaching of agriculture. For men with experience in teaching vocational agriculture.
3 *credits; summer session* (Hammonds)

281—TEACHING PREVOCATIONAL AGRICULTURE. Each student works out the content of a course in prevocational agriculture, including selecting the teaching materials. Aims, purposes, and methods of teaching are considered. 3 *credits; summer session* (Woods)

287—ADVANCED PROBLEMS IN AGRICULTURAL EDUCATION. The specific problems considered vary according to the needs of the group. 3 *credits; both semesters and summer session* (Hammonds and Woods)

287b—SELECTING TEACHING MATERIALS. Specific references and other teaching materials are selected to be used in the teaching of vocational agriculture. 3 *credits; summer session* (Woods)

287c—EVENING SCHOOLS. Designed to prepare men to teach adult farmers. Includes organizing the school, determining content, method of teaching, follow-up work. 3 *credits; summer session* (Hammonds and Woods)

287d—DIRECTING FARM PRACTICE. Considers farm practice as a method of teaching. Takes up standards, planning, supervision, records. 3 *credits; summer session* (Hammonds)

289—RESEARCH IN AGRICULTURAL EDUCATION. The student works on some problem of importance to agricultural education. 3 *credits; both semesters* (Hammonds and Woods)

BUSINESS EDUCATION

158a—METHODS OF TEACHING SECRETARIAL SUBJECTS. Special techniques and devices for teaching shorthand, typewriting and secretarial office practice are considered. 2 *credits; summer session* (Lawrence)

158b—METHODS AND MATERIALS IN TEACHING ACCOUNTING. This course provides materials and techniques in the teaching of accounting. The different approaches to the subject are examined critically. 2 *credits; summer session* (Lawrence)

159—THE COMMERCIAL CURRICULUM. Commercial subjects offered in the high school are examined to determine their content and the place each should occupy in the curriculum. Some time is given to the course of study.
Prerequisite: *Junior standing or experience teaching or supervising commercial subjects.* 3 *credits; summer session* (Lawrence)

192—METHODS AND MATERIALS IN JUNIOR BUSINESS. The objectives of junior business are examined critically and materials prepared for teaching the subject. Methods in teaching are developed. Since the subject is relatively new and is offered on the junior high school level definite projects are set up.
Prerequisite: *Junior standing or experience teaching business subjects.* 3 *credits; summer session* (Lawrence)

208—PROBLEMS IN COMMERCIAL EDUCATION. Some of the more advanced problems in the field are studied. The type of problems considered is influenced by the interests and needs of the group. Some of

these problems are: Testing in business subjects; extra-curricular activities in commerce; job studies; placement and follow-up; types of equipment; and supervision.
Prerequisite: *Graduate standing in College of Education.* 3 *credits; 1st semester* (Lawrence)

EDUCATIONAL PSYCHOLOGY

1—PSYCHOLOGY OF STUDY. Educational psychology from the standpoint of the student, with special reference to the problems of the college freshman.
Prerequisite: *Freshman standing in College of Education.* 3 *credits; 1st semester* (Ross)

16—EDUCATIONAL PSYCHOLOGY. Application of psychology to the problems of learning and teaching, from the standpoint of the teacher.
Prerequisite: *One semester of Psychology.* 3 *credits; 1st and 2nd semesters* (Ross)

118—EDUCATIONAL TESTS AND MEASUREMENTS FOR ELEMENTARY TEACHERS. The problems of measurement in the elementary school; formal and informal tests; marking systems, etc.
Prerequisite: *One semester of psychology.* 2 *credits; 1st semester* (Ross)

119—FOUNDATIONS OF ELEMENTARY EDUCATION. The psychology of the child in the primary and intermediate grades.
Prerequisite: *One semester of psychology.* 3 *credits; 2nd semester* (Ross)

122—EDUCATIONAL TESTS AND MEASUREMENTS FOR HIGH SCHOOL TEACHERS. The problems of measurement in the junior and senior high school, with special emphasis on standardized tests. The construction and use of new type tests, use and limitations of traditional examinations, marking systems, etc.
Prerequisite: *Education* 16. 3 *credits; 2nd semester* (Ross)

147—FOUNDATIONS OF SECONDARY EDUCATION. The psychology of the student in junior and senior high school.
Prerequisite: *One semester of psychology.* 3 *credits; 2nd semester* (Ross)

152—PROBLEMS IN EDUCATIONAL PSYCHOLOGY. A critical survey of the conflicting schools of psychology, theories of learning, etc.
Prerequisite: *Education* 16. 3 *credits; 2nd semester* (Ross)

216—SEMINAR IN TESTS AND MEASUREMENTS. A critical study of certain problems in measurement. Individual work.
Prerequisites: *Education* 122. 3 *credits; 1st semester* (Ross)

223—EDUCATIONAL STATISTICS. A non-mathematical study of the applications of statistical and graphical methods to educational data.
3 *credits; 1st semester* (Ross)

ELEMENTARY EDUCATION

6—PRACTICE TEACHING. One hour per day for a semester in a grade room spent in directed observation and preliminary teaching. Two hours per week in conference with the training teacher. This course is designed to give the student close contact with children and the technique of

teaching and classroom management. Not open until last semester sophomore year.

Prerequisite: *Second semester sophomore standing in the elementary curriculum.* — 3 *credits; both semesters* (Duncan and Training Teachers)

20—INDUSTRIAL ARTS FOR ELEMENTARY GRADES. This is a practical course involving the use of tools and various materials suitable for use in the elementary school. It is intended for grade teachers who wish to make industrial arts an integral part of the elementary school curriculum. 2 *credits; both semesters* (Haines)

42—ARITHMETIC IN ELEMENTARY GRADES. A study of children's interests in, and needs for arithmetic—evaluation of practices and materials; organization of subject matter; activities involving arithmetic; drill; problem solving; diagnosis and remedial instruction; and testing. 3 *credits; both semesters* (Duncan)

44—FUNDAMENTALS OF ELEMENTARY EDUCATION. This course is planned to give a background for, and an understanding of the organization and viewpoint of the modern elementary school. The work is planned around centers of interest. This course does not deal with subjects as separate subjects, but a fusion of all the factors that give the child a well-rounded development. The student will have experience in planning and organizing material for units of work for Grades I to VI. There will be opportunities for observation of units being carried out on the different age levels. 5 *credits; 1st semester*

133—DIRECTED TEACHING IN THE ELEMENTARY SCHOOL. Supervised teaching in Kindergarten or Grades I to VI. Open only to seniors. The student must spend from 9:00 a.m., until 2:00 p.m., in the classroom for the semester. One hour per day additional (2:00 p.m., to 3:00 p.m.) is spent in conference and discussion with the critic teacher and supervisor. The student may take only two additional courses (3 credits each) this semester and these classes must be taken either the first, seventh, or eighth hours. A student who has had Education 6 may take this course with reduced hours and reduced credits. This course is designed to give the student experience with and practice in the program for the whole day in a modern elementary school.

Prerequisite: *Senior standing in the Elementary School.* — 10 *credits; both semesters* (Duncan and Training Teachers)

172—TEACHING READING IN THE ELEMENTARY SCHOOL. A practical application of principles derived from psychology and research. Discussion of aims, primary reading, activities leading to reading, reading in the intermediate grades, oral and silent reading, phonics, diagnostic and remedial work; means of testing and suitable material for each grade.

Prerequisite: *Junior standing in Elementary Curriculm.* — 3 *credits; 1st semester* (Duncan)

173—TEACHING LITERATURE TO CHILDREN. A study of the literature for children from kindergarten to Grade VI. Reading and book reports from various types, Mother Goose, folklore, modern fantastic tales, poetry, realistic stories, biography, myths and legends. Children's interests at different ages and stages of development; story telling and dramatization. 3 *credits; 2nd semester* (Duncan)

174—PRE-SCHOOL THEORY AND MANAGEMENT. A study of the nature, development, care and training educationally of the pre-school child. Emphasis will be placed on the formation of proper emotional and social habits and standards for right environment set-up. Students will schedule regular periods for observation and assistance in the Kindergarten (by appointment.)

Prerequisite: *Junior standing in Elementary Curriculum.* 4 *credits; 1st semester* (Martin)

176—PRE-SCHOOL ORGANIZATION AND TEACHING. A study of the pre-school movement in Europe and America. A study of the organization, equipment, curriculum and methods of pre-school teaching. Students taking this course will schedule regular periods (by appointment) for observation and assistance in the University Kindergarten.

Prerequisite: *Junior standing in Elementary Curriculum.* 4 *credits; 2nd semester* (Martin)

195—ORGANIZATION AND MANAGEMENT OF PRE-SCHOOL EDUCATION. This course deals with the problems of teaching in nursery schools and concerns itself primarily with the education of children from two to four and one-half years of age. It includes observation and participation in the nursery school. Students desiring to register for this course must have their applications approved by the instructor and by the dean of the college. 6 *credits* (Martin)

196—SCIENCE IN THE ELEMENTARY SCHOOL. This course is planned to give a background of elementary science usable with children in the first six grades. The course includes planning units of work, organizing and using materials and references, use of illustrative material, excursions, and making bibliographies for teachers and children.

3 *credits* (Daniel)

197—COURSE FOR LEADERS IN PARENT EDUCATION (for nursery school, kindergarten and elementary teachers). This course is planned to help teachers conduct effective parent education programs. It includes a study of the principles of adult education, acquaintance with types of programs, study of reference materials, knowledge of various social and educational agencies in the community and the planning of a parental education program by each student based on the special needs and problems of the community. 3 *credits* (Daniel)

212—THE ELEMENTARY SCHOOL. This course is designed to acquaint the prospective principal or superintendent with the nature and function of the elementary school. This is one of the basic courses in the field of administration and should be taken at or near the beginning of the student's graduate program.

Prerequisite: *Graduate standing.* 3 *credits; 1st semester and summer session* (Chamberlain)

218—PROBLEMS IN PRESCHOOL AND NURSERY SCHOOL EDUCATION. This course is for graduate students who have had courses in preschool or nursery school theory. Each student will be required to select a problem upon nursery school procedure or upon some phase of child development. Records will be kept and references read on each problem and reports made at special conferences. A final rport on the problem will be submitted at the end of the term. Attendance at laboratory periods twice a week is required.

Prerequisite: *Graduate standing.* 2 *credits; 2nd semester* (Martin)

HISTORY OF EDUCATION

117a—HISTORY OF EDUCATION. This course is a survey of the history of secondary education from the Greek period to the present time.
3 *credits; 1st semester* (Patrick)

117b—HISTORY OF EDUCATION. A survey of the history of elementary education beginning with Athenian education and closing with present elementary education in America.
3 *credits; 2nd semester* (Patrick)

121—HISTORY OF EDUCATION IN THE UNITED STATES. A course in the history of the development of the public school system in the United States. It is designed to give a background for the appreciation of the aims and purposes of modern education.
3 *credits; 2nd semester* (Patrick)

219—GREAT EDUCATORS AND THEIR WORK. A study of the lives and writings of the world's educators to enable the student to appreciate more fully the ideals, attitudes and contributors to society of the men and women in education who have served best.
Prerequisite: *Graduate standing.* 3 *credits; 1st semester* (Patrick)

220—COMPARATIVE EDUCATION. A course giving comparisons of systems of education.
Prerequisite: *Graduate standing.* 3 *credits; 2nd semester* (Taylor)

HOME ECONOMICS EDUCATION

160—TECHNIQUE OF TEACHING HOME ECONOMICS. A study of methods of teaching as applied to home economics.
Prerequisites: *H. E.* 26, 6*a and b*, 29, 3, 51; *Ed.* 147. 3 *credits; both semesters* (Parker or Spickard)

162—DIRECTED TEACHING IN HOME ECONOMICS. Practical application of methods in teaching various phases of home economics.
Prerequisite: *Ed.* 160. 6 *credits; both semesters* (Parker or Spickard)

164—METHODS OF TEACHING CHILD CARE. A critical evaluation of subject matter in child care and methods of presenting it to high school pupils.
Prerequisite: *H. E.* 115 *or equivalent.* 3 *credits* (Parker or Spickard)

165—PROBLEMS IN VOCATIONAL EDUCATION. This course deals with the problems involved in teaching vocational homemaking in day, part-time, and evening schools. 3 *credits; 2nd semester* (Parker or Spickard)

178—METHOD OF TEACHING HOME MANAGEMENT AND FAMILY RELATIONS IN JUNIOR AND SENIOR HIGH SCHOOL. The course deals with the selecting of subject matter and methods suitable for junior and senior high school pupils.
Prerequisites: *H. E.* 42 *and experience in teaching.* 3 *credits* (Parker or Spickard)

261—HOME ECONOMICS SUPERVISION. A course planned primarily to help prepare teacher trainers and supervisors of home economics education.
Prerequisites: *Ed.* 160 *and* 162, *experience in teaching and approval of instructor.* 3 *credits; either semester* (Parker or Spickard)

263—CURRENT PROBLEMS IN HOME ECONOMICS EDUCATION. A study of some recent developments in the field of home economics education.
Prerequisites: *Ed.* 160 *and* 162; *experience in teaching.* 3 *credits; either semester and summer* (Parker and Spickard)

266—SEMINAR IN HOME ECONOMICS EDUCATION. Provision is made for students to make individual investigations and report on special problems in home economics education.
Prerequisite: *Graduate standing.* 3 *credits; either semester and summer* (Parker or Spickard)

268—HOME ECONOMICS CURRICULUM CONSTRUCTION. A study of the underlying principles of curriculum building for junior and senior high school home economics.
Prerequisite: *Ed.* 160 *and* 162. 3 *credits; both semesters* (Parker or Spickard)

PHILOSOPHY OF EDUCATION

35—INTRODUCTION TO EDUCATION. This deals with the teacher, the teaching process, the school as a social agency and the philosophy of education. Open to freshmen.
3 *credits; 1st and 2nd semesters* (Adams)

114—EDUCATIONAL SOCIOLOGY. A study in the application of sociological findings to the field of education.
Prerequisites: *Ed.* 101 *and* 122. 3 *credits; 1st and 2nd semesters* (Patrick)

127a—PRINCIPLES OF CURRICULUM CONSTRUCTION (for elementary teachers). A study of the philosophy and technics of curriculum construction and some practical work in construction.
Prerequisite: *Junior standing.* 3 *credits; 2nd semester* (Haines)

200—ADVANCED COURSE IN PHILOSOPHY OF EDUCATION. This is an advanced course dealing with the philosophy underlying the larger educational problems of today.
Prerequisites: *Graduate standing and at least 12 hours in education.* 3 *credits; 2nd semester* (Adams)

205—REVIEW OF CURRENT EDUCATIONAL LITERATURE. An extensive study of current educational literature as found in educational periodicals.
Prerequisites: *Graduate standing and 12 hours in education.* 3 *credits; 1st semester* (Adams)

222a—THESIS COURSE. This course is intended to acquaint the student with the various techniques of research and to aid him in methods of attack on his own particular research problems.
Prerequisites: *Graduate standing and 12 hours in education.* 3 *hours a week; 1st semester* (Taylor)

222b—THESIS COURSE. Continuation of 222a.
Prerequisites: *Graduate standing and 12 hours in education.* 3 *credits; 2nd semester* (Taylor)

227a—PRINCIPLES OF CURRICULUM CONSTRUCTION. A survey of modern curriculum making as carried on in progressive city school systems, laboratory schools and state school systems. Also an intensive study of the principles underlying curriculum revision.
Prerequisites: *Graduate standing, teaching experience and 12 hours in education.* 3 *credits; 1st semester* (Adams)

227b—TECHNIQUES IN CURRICULUM CONSTRUCTION. This course has to do with the techniques being used to determine content of courses of study.
Prerequisites: *Graduate standing, teaching experience, 12 hours in education.* 3 *credits; 2nd semester* (Adams)

230—PROBLEMS OF EDUCATIONAL SOCIOLOGY. An advanced course in the application of sociology to the educational field.
Prerequisites: *Graduate standing and 12 hours education, including Ed. 114.* 3 *credits; 2nd semester* (Adams)

SECONDARY EDUCATION

105—THE TECHNIQUE OF TEACHING. Deals with laboratory methods of instruction. Units: fundamental processes, control, operation, administration.
Prerequisite: *Ed. 101.* 3 *credits; both semesters* (Ligon)

109—PRINCIPLES OF SECONDARY EDUCATION. This course is planned to give an overview of the field of secondary education. The principal topics of this course are (1) historical background; (2) scope and functions of secondary education; (3) characteristics and needs of secondary school pupils; (4) curriculum making; (5) extra-curricular activities; (6) changing conceptions of secondary education; (7) future trends.
3 *credits; 2nd semester* (Ligon)

149—EXTRA-CURRICULAR ACTIVITIES. Underlying principles, faculty activities, home-room activities, student council, clubs, athletics, publications, dramatics, honor societies, commencements.
Prerequisites: *Junior standing and 12 hours in Education.* 3 *credits* (Ligon)

153—DIRECTED TEACHING IN ENGLISH. For seniors. Topics: Course of study, minimum essentials, materials, methods, testing. Part I, languages and composition; Part II, literature. Observation and practice five hours, conference two hours.
Prerequisites: *Education (See Professional Major, and 18 hours in English.* 6 *credits; both semesters and first summer term* (Anderson)

154—DIRECTED TEACHING IN FOREIGN LANGUAGES. For seniors. Topics: Aims and objectives, course of study, methods, tests, equipment, analysis of textbooks. Observation and practice five hours, conference two hours.
Prerequisites. *Education (See Professional Major, and 18 hours in subject to be taught.* 6 *credits; both semesters and first summer term* (West)

155—DIRECTED TEACHING IN THE SCIENCES. For seniors.

Topics: Aims, and objectives, courses of study, methods, tests, equipment. General science, biology, physics and chemistry. Observation and practice five hours, conference two hours.

Prerequisites: *Education (See Professional Major, and 18 hours in subject to be taught.* — 6 *credits; both semesters and first summer term* (Kemper)

156—DIRECTED TEACHING IN MATHEMATICS. For seniors. Topics: Course of study, materials, methods, testing. Observation and practice five hours, conference two hours.

Prerequisites: *Education (See Professional Major, and 18 hours in mathematics.* — 6 *credits; both semesters and first summer term* (Mitchell)

157—DIRECTED TEACHING IN THE SOCIAL STUDIES. For seniors. Topics: Objectives, preparation of the teachers, courses of study, methods, supplementary materials, visual instruction, testing and professional helps. Observation and practice five hours, conference two hours.

Prerequisites: *Education (See Professional Major, and 18 hours in subject to be taught.* — 6 *credits; both semesters and first summer term* (Peck)

169a—DIRECTED TEACHING IN PHYSICAL EDUCATION. This course has been planned for students who desire to become directors of physical education and coaches of athletics in the public schools.

Prerequisites: *Education (See Professional Major, and 18 hours in Physical Education.* — 2½ *credits; 1st semester* (Potter)

169b—DIRECTED TEACHING IN PHYSICAL EDUCATION. A continuation of Education 169a. 2½ *credits; 2nd semester* (Potter)

177a—DIRECTED TEACHING IN MUSIC. This course has been planned for teachers who contemplate becoming supervisors of music in the public schools. 3 *credits; 1st semester* (Parker)

177b—DIRECTED TEACHING IN MUSIC. A continuation of Education 177a. 3 *credits; 2nd semester* (Parker)

193—DIRECTED TEACHING IN COMMERCIAL SUBJECTS. For seniors. This course will include practice in junior business training; in shorthand; in typewriting and in such other commercial subjects as are commonly taught on the secondary level.

6 *credits; both semesters* (Morton)

214—THE SECONDARY SCHOOL. This course is designed to acquaint the prospective principal or superintendent with the nature and function of the secondary school. This is one of the basic courses in the field of administration and should be taken at or near the beginning of the student's graduate program.

Prerequisite: *Graduate standing.* — 3 *credits; 2nd semester and summer session* (Ligon)

307—RESEARCH PROBLEMS IN SECONDARY EDUCATION. This course is designed for students who want to work on special problems.

Prerequisite: *Master's degree or equivalent.* — 3 *credits; both semesters* (Ligon)

COLLEGE OF COMMERCE

EDWARD WIEST, A. M., Ph. D., Dean

INTRODUTORY STATEMENT

The College of Commerce aims to train young men and women for business and public-service careers, and also to provide instruction intended to give an undrestanding 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.

In the first two years of the several curricula setting forth the requirements for the degree of Bachelor of Science in Commerce, the student is called upon to take a number of basic liberal arts courses with a view to provide breadth of education and a foundation for the more specialized training that is allowed in the last two years.

A more definite understanding of the objectives of professional training will come from an examination of the various curricula and fields of specialization outlined below.

REQUIREMENTS FOR GRADUATION

The degree of Bachelor of Science in Commerce is conferred upon students who meet the requirements of any one of the four curricula offered by the College of Commerce. The minimum number of credits required for graduation under the General-Business Curriculum, the Combined Commerce-Law Course and the Secretarial-Training Course, is 127, while under the Industrial-Administration Curriculum it is 142. The scholarship standing must be at least "1". Unless two units in the ancient or foreign languages are offered for entrance, one year of language in college is required for graduation under all curricula except the Industrial-Administration. Regardless of these minimum requirements all commerce students are urged to take one year of foreign language.

GENERAL-BUSINESS CURRICULUM

FRESHMAN YEAR

First Semester	Crs.	Second Semester	Crs.
English Comp. 1a	3	English Comp. 1b	3
Economic History of Europe 2	3	Economic History of U. S. 3	3
College Algebra 17	3	Math. of Finance 14	5
General Psychology 2a	3	General Psychology 2b	3
General Hygiene 1	1	Gymnasium 1b	.7
Gymnasium 1a	.7	Military Science 1b	1.3
Military Science 1a	1.3		
Elective	1 to 3		
	16.0		16.0

SOPHOMORE YEAR

First Semester	Crs.	Second Semester	Crs.
Prin. of Economic 1	3	Forms of Business Org. 9	3
Prin. of Accounting 7a	4	Prin. of Accounting 7b	4
American Government 51	3	Intro. to Mod. Europe 4b	3
Biol. or Phys. Science	3 or 4	Biol. or Phys. Science	3 or 4
Military Science 6a	1.5	Principles of Marketing 10	3
Elective	1 to 3	Military Science 6b	1.5
	15.5		17.5

JUNIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Statistical Method 107	3	Corporation Finance 117	3
Money and Banking 105	3	Business English 30	2
Electives including one from Advertising, Salesmanship or Sociology	10	Business Cycles 110	3
		Electives including one Commerce course	8 or 9
	16		16

SENIOR YEAR

First Semester	Crs.	Second Semester	Crs.
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
	15		15

Total credits—127.

INDUSTRIAL-ADMINISTRATION CURRICULUM

FRESHMAN YEAR

First Semester	Crs.	Second Semester	Crs.
English Composition 1a	3	English Composition 1b	3
Econ. History of Europe 2	3	Econ. Geog. 8 or 12	3
College Algebra 17	3	Plane Analytics 19	3
Plane Trigonometry 18	2	Gen. Inorganic Chemistry 1b	5
Gen. Inorganic Chemistry 1a	5	Hygiene 1	1
Physical Education 1a	.7	Physical Education 1b	.7
Military Science 1a	1.3	Military Science 1b	1.3
	18.0		17.0

SOPHOMORE YEAR

First Semester	Crs.	Second Semester	Crs.
Principles of Economics 1	3	Forms of Bus. Organization 9	3
Principles of Accounting 7a	4	Principles of Accounting 7b	4
American Government 51	3	Physics 1b	5
Physics 1a	5	Drawing	2
Drawing	2	Business English 30	2
Military Science 6a	1.5	Military Science 6b	1.5
	18.5		17.5

JUNIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Statistical Method 107	3	Modern European History 4b	3
Marketing 10 or Salesmanship 11	3 or 2	Corporation Finance 117	3
Cost Accounting 118	3	Transportation 103	3
Psychology 10	3	Personnel Adm., Psy. 112	3
*Electives in Physics, Geology, Chemistry or theoretical course in Engineering	6	*Electives in Physics, Geology, Chemistry or theoretical courses in Engineering	6
	18		18

SENIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Business Law 109a	3	Business Law 109b	3
Econ. of Pub. Util. 126	3	Problems in Management 137	3
Money and Banking 105	3	Labor Problems 102 or Labor Legislation 130	3
Public Finance 104	3	Elective in Commerce	3
*Electives in Physics, Geology, Chemistry or theoretical courses in Engineering	6	*Electives in Physics, Geology, Chemistry or theoretical courses in Engineering	6
	18		18

Total credits—142.

* Students will select courses under the joint guidance of the Head of the Department involved and the Dean of the College of Commerce.

COMBINED COMMERCE-LAW COURSE

FRESHMAN YEAR

First Semester	Crs.	Second Semester	Crs.
English Comp. 1a	3	English Comp. 1b	3
Econ. Hist. of Europe 2	3	Econ. Hist. of U. S. 3	3
College Algebra 17	3	Math. of Finance 14	5
General Psychology 2a	3	General Psychology 2b	3
General Hygiene 1	1	Gymnasium 1b	.7
Gymnasium 1a	.7	Military Science 1b	1.3
Military Science 1a	1.3		
Elective	1 to 3		
	16.0		16.0

SOPHOMORE YEAR

First Semester	Crs.	Second Semester	Crs.
Prin. of Economics 1	3	Forms of Bus. Org. 9	3
Prin. of Accounting 7a	4	Prin. of Accounting 7b	4
American Government 51	3	American Government 80	3
Biol. or Phys. Science or Foreign Language	3 or 4	Biol. or Phys. Science or Foreign Language	3 or 4
Military Science 6a	1.5	Introduction to Modern Europe 4b	3
Elective	3	Military Science 6b	1.5
	17.5		17.5

JUNIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Labor Problems 102	3	Corporation Finance 117	3
Money and Banking 105	3	Prin. of Marketing 10	3
Public Finance 104	3	Business English 30	2
Elective in Commerce	3	Electives in Commerce	8
Elective in Commerce or Sociology	4 or 5		
	16		16

SENIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Property I and II	4	Pleading I and II	4
Torts	3	Torts	3
Contracts	3	Contracts	3
Domestic Relations	2	Agency	2
Criminal Law	2	Criminal Procedure	2
	14		14

Total credits—127.

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 sixth years the student completes the remaining law courses necessary to receive the degree of LL. B.

SECRETARIAL-TRAINING COURSE

FRESHMAN YEAR

First Semester	Crs.	Second Semester	Crs.
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 17	3	Foreign Language or Math. of Finance 14	3 or 5
General Psychology 2a	3	General Psychology 2b	3
Gymnasium 1a	.7	General Hygiene 1	1
Military Science 1a	1.3	Gymnasium 1b	.7
Elective	1 to 3	Military Science 1b	1.3
	15.0		15.0

SOPHOMORE YEAR

First Semester	Crs.	Second Semester	Crs.
Prin. of Economics 1	3	Forms of Bus. Org. 9	3
Prin. of Accounting 7a	4	Prin. of Accounting 7b	4
American Government 51	3	Intro. to Mod. Europe 4b	3
Biol. or Phys. Science	3 or 4	Biol. or Phys. Science	3 or 4
Military Science 6a	1.5	Prin. of Marketing 10	3
Elective	2 to 3	Military Science 6b	1.5
	16.5		17.5

JUNIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Statistical Method 107	3	Salesmanship 11	2
Money and Banking 105	3	Business English 30	2
Prin. of Sociology	3	Secretarial Practice 13b	5
Secretarial Practice 13a	5	Corporation Finance 117	3
Secretarial Accounting 6	3	Elective in English	3
	17		15

SENIOR YEAR

First Semester	Crs.	Second Semester	Crs.
Business Law 109a	3	Business Law 109b	3
Office Management 14a	3	Office Management 14b	3
Public Finance 104	3	Electives including two	
Electives	7	Commerce courses	9
	16		15

Total credits—127.

CURRICULUM FOR COMMERCIAL TEACHERS

Students preparing to teach Commercial subjects in the high school should take enough work in education to meet the requirements for teachers' certificates. Attention is called to a special curriculum for the training of commercial teachers offered by the College of Education.

SPECIALIZATION IN ACCOUNTING

To secure adequate preparation for accountancy the student should follow the General-Business Curriculum and take as electives about all the advanced accounting courses offered. Contracts and other law courses are also suggested as electives.

SPECIALIZATION IN STATISTICS

Students planning to prepare for the profession of statistician should pursue the General-Business Curriculum and elect advanced courses in mathematics and advanced work in statistics offered by the College of Commerce and by the Department of Mathematics in the College of Arts and Sciences.

PREPARATION FOR PUBLIC SERVICE

Inview of the increased demands from federal, state and local governments for experts in finance, accounting, marketing, statistics

and personnel management, students should consider the possibilities of careers in the field of public service. Comparative Government and other courses in Political Science should be taken as electives in addition to the requirements in the General-Business Curriculum.

If preparation for the field of foreign service is desired, various courses in economics, political science and history dealing with international relations, should be taken. Foreign languages, of course, are indispensable.

OTHER FIELDS OF SPECIALIZATION

In addition to the fields of specialization above suggested, students pursuing the General-Business Curriculum, and to some extent those following the Secretarial-Training Course, may concentrate their electives in such professional fields as merchandising, salesmanship, advertising, insurance and personnel management, or else they may scatter their efforts and take a number of unrelated courses with a view to broaden their education. Students should seek the advice of members of the Faculty concerning the availability of courses in the various departments of the University that will meet their needs.

DESCRIPTION OF COURSES

1—PRINCIPLES OF ECONOMICS. An examination of the fundamental principles of economics and the application of these principles to practical problems. Not open to freshmen.
3 *credits; 1st and 2nd semesters* (Wiest and others)

2—ECONOMIC HISTORY OF EUROPE. A survey of conditions preceding the modern period with a more intensive study of the subsequent development of agriculture, industry, and finance. Open only to freshmen and sophomores. 3 *credits; 1st semester* (Jennings and others)

3—ECONOMIC HISTORY OF THE UNITED STATES. A brief sketch of economic life in the colonies, followed by a more detailed account of the national evolution in agriculture, manufacture, transportation, commerce and finance. Open only to freshmen and sophomores.
3 *credits; 2nd semester* (Jennings and others)

6—SECRETARIAL ACCOUNTING. A study of household, school, library, hospital, lawyers' and physicians' accounts.
Prerequisite: *Course 7a.* 3 *credits; 2nd semester* (Lawrence)

7a—PRINCIPLES OF ACCOUNTING. Instruction in the science and adaptation of the accounts of going concerns, together with sufficient practice to acquire proficiency. Recitation two hours; laboratory four hours a week.
Not open to freshmen. 4 *credits; 1st semester* (Haun and Lawrence)

7b—PRINCIPLES OF ACCOUNTING. Continuation of 7a. Recitation two hours a week; laboratory four hours a week.
Not open to freshmen. 4 *credits; 2nd semester* (Haun and Lawrence)

8—ECONOMIC GEOGRAPHY. A brief study of the earth's physical characteristics and their relation to man's activities, including the effects of climate, natural resources and means of transportation upon the development of social, political and economic phases of life.

3 *credits; 1st semester* (Carter)

9—FORMS OF BUSINESS ORGANIZATION. A study of business organization primarily from a social point of view. The course traces the origin and development of forms of business organization; treats of advantages and disadvantages of the various forms; includes a study of the trust or combination movement and its effect upon society.

3 *credits; 2nd semester* (Tolman and others)

10—PRINCIPLES OF MARKETING. A functional study of the market organization. Considerable time is given to the discussion of retail types such as the general store, chain store, department store and mail order house. Special attention is devoted to market finance, market risk. market news, competition and prices, market price, price maintenance, unfair competition, and the cost of marketing.

Prerequisite: *Course* 1. 3 *credits; 2nd semester* (McIntyre)

11—SALESMANSHIP. Among the problems considered are the formulation of selling policies, the actual selling process, the creation of effective demand, sales campaigns, selecting and training salesmen and kindred subjects.

Prerequisites: *Courses* 1 *and* 10. 2 *credits; 1st semester* (McIntyre)

12—ECONOMIC GEOGRAPHY OF NORTH AMERICA. A detailed study of the agricultural, mineral, lumber, fishery and other economic resources of North America. The emphasis is placed upon the resources of the United States, the various geographical sections being intensively studied. 3 *credits; 2nd semester* (Carter)

13a—SECRETARIAL PRACTICE. This course offers training in the theory of shorthand and is supplemented with some discussion of secretarial duties. Credit for this course will not be given until 13b is completed. Recitation four hours a week; laboratory two hours a week.

Prerequisite: *Two years of college work.* 5 *credits; 1st semester* (Lawrence)

13b—SECRETARIAL PRACTICE. Continuation of 13a. Much attention is given to the principles of speed writing. Practice material is selected which will give the student an idea of the form and general lay-out of business papers. Recitation four hours a week; laboratory two hours a week.

Prerequisite: *Course 13a or its equivalent.* 5 *credits; 2nd semester* (Lawrence)

14a—OFFICE MANAGEMENT. The principles and technique of office management in general and the application of these principles to executive, purchasing, advertising, clerical and other departments; various systems of filing; the treatment of mail, the routing of business papers, kinds and uses of office equipment, and the construction of mailing lists from original sources; proper personal attitudes are emphasized; the course also provides further practice in the transcription of shorthand notes and the preparation of business reports. 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.
Prerequisites: *Courses 13a and 13b or their equivalent.* 3 *credits; 1st semester* (Lawrence)

14b—OFFICE MANAGEMENT. Continuation of 14a. Recitation two hours a week; laboratory two hours a week.
3 *credits; 2nd semester* (Lawrence)

15—ECONOMIC PROBLEMS. Fundamental aspects of money and banking, industrial efficiency, marketing, transportation, public utilities, public finance, social control, et cetera.
3 *credits; 2nd semester* (Wiest and others)

102—LABOR PROBLEMS. A study of the labor market in its industrial setting, including such directly related topics as immigration, unemployment, and labor organizations.
Prerequisite: *Course* 1. 3 *credits; 1st semester* (Carter)

103—TRANSPORTATION. Railways, waterways, highways, airways. Rates, service, management, regulation.
Prerequisite: *Course* 1. 3 *credits; 2nd semester* (Sullivan)

104—PUBLIC FINANCE. A study of public receipts; public expenditures; the principles of taxation with special reference to their application to the tax systems, federal and state.
Prerequisite: *Course* 1. 3 *credits; 1st semester* (Martin and Sullivan)

105—MONEY AND BANKING. Nature and functions of money; the importance of credit; relation of money and credit to prices; bank deposits and loans; complete study of our national banking system.
Prerequisite: *Course* 1. 3 *credits; 1st semester* (Wiest and Sullivan)

106a—ADVANCED ACCOUNTING. Principles of valuation and income determination. Statement arrangement. Corporation accounting. Manufacturing accounts. Advanced partnership accounting.
Prerequisites: *Courses 7a and 7b.* 3 *credits; 1st semester* (Haun)

106b—ADVANCED ACCOUNTING. Continuation of 106a. Accounting for installment sales, agencies and branches, ventures, and consignments. Accounting features of insolvent concerns and of consolidations and mergers. Estate accounting. Analysis of financial statements.
3 *credits; 2nd semester* (Haun)

107—STATISTICAL METHOD. Training in the process of treating multiple phenomena with mathematical exactitude. The methods are illustrated with material from the fields of psychology, education, economics and sociology. Recitation one hour; laboratory four hours.
Not open to freshmen and sophomores. 3 *credits; 1st semester* (Palmer)

109a—BUSINESS LAW. A survey of the principles of contracts, sales, bills and notes, and that portion of the law of torts applicable to business practices.
Prerequisites: *Two years of Commerce course.* 3 *credits; 1st semester* (Murray)

109b—BUSINESS LAW. Continuation of 109a.
3 *credits; 2nd semester* (Murray)

110—BUSINESS CYCLES. The nature and characteristics of the eco-

nomic factors which underlie the cyclical fluctuations in business conditions; the methods of business and investment forecasting.
Prerequisites: *Courses* 1 *and* 107. 3 *credits; 2nd semester* (Palmer)

112a—INDIVIDUAL WORK IN ECONOMICS. In this course a selected group of advanced students who have at least a standing of 2 are given special problems for intensive investigation. The students are expected to do more work than the usual amount required per credit hour.
Prerequisite: *Course* 1. 2 *credits; 1st semester* (Martin, Palmer and others)

112b—INDIVIDUAL WORK IN ECONOMICS. Continuation of 112a.
2 *credits; 2nd semester* (Martin, Palmer and others)

113—AUDITING. The theory of auditing, the valuation of assets, analysis of accounting procedure, and the presentation of statements. Special problems applicable to particular businesses will also be presented.
Prerequisites: *Courses 7a and 7b.* 3 *credits; 2nd semester* (Haun)

117—CORPORATION FINANCE. Stocks and bonds, sound fiscal principles concerning the issue of securities, the management of the corporate income, the disbursement of dividends, the creation of sinking funds, and rorganization procedure.
Prerequisites: *Courses* 1, *7a, 7b and* 9. 3 *credits; 2nd semester* (Lawrence and others)

118—COST ACCOUNTING. The place of cost accounting in the general field of accounting, special records and cost statistics, application to particular businesses.
Prerequisites: *Courses 7a and 7b.* 3 *credits; 1st semester* (Haun)

119—RETAIL MERCHANDISING. Selecting a business location, internal layout, departmentalization, merchandising control, store policies toward the public, training and management of personnel, and related subjects.
Prerequisites: *Courses* 1 *and* 10. 2 *credits; 2nd semester* (McIntyre)

120—ORGANIZATION OF ECONOMIC GROUPS. A survey of economic groups and their economic and social relationships; the business organization aspects of farmers' organizations, chambers of commerce, trade and industrial associations.
Prerequisite: *Course* 1. 3 *credits; 1st semester* (Sullivan)

124—STATE AND LOCAL TAXATION. Classified property taxes; separation of sources of revenue; taxation of banks, forests, public utilities, mines, and rural and urban real estate; income, inheritance and sales taxes.
Prerequisite: *Course* 1. 3 *credits; 2nd semester* (Martin)

125—ADVANCED ECONOMIC HISTORY OF EUROPE. An advanced study of population, immigration, labor, agriculture, industry, and finance and the effects of the various lines of development upon national life.
Not open to freshmen and sophomores nor to students who have had Course 2 *except when doing graduate work.* 3 *credits; 1st semester* (Jennings)

126—ECONOMICS OF PUBLIC UTILITIES. No credit for this course can be given if the student has credit for Political Science 158. Growth and development of public utilities; valuation; rate-making; financing; the holding company; regulation; current problems; accounting.
Prerequisite: *Course* 1. 3 *credits; 1st semester* (Carter)

127—INTERNATIONAL ECONOMIC POLICIES. Modern fallacies respecting foreign trade; free trade; protectionism; preferential tariffs;

colonial tariff policies; dumping; commercial treaties; control of raw materials; encouragement of shipping; international investments and the movement of capital; international debts; reparations.
Prerequisite: *Course* 1. 3 *credits; 2nd semester* (Sullivan)

128—FOREIGN EXCHANGE. The theory and practice of foreign exchange; types of foreign bills; the rate of exchange, international gold movements; investment and speculation in exchange.
Prerequisite: *Course* 1. 2 *credits; 1st semester* (Palmer)

129—CREDIT AND STATEMENT ANALYSIS. The theory underlying credit-granting; credit administration; analysis and interpretation of financial statements.
Prerequisite: *Course 7a.* 2 *credits; 1st semester* (Haun)

130—LABOR LEGISLATION. The status of labor law, mediation, conciliation, arbitration, the minimum wage, the eight-hour day, unemployment relief, safety and health legislation, and social insurance.
Prerequisite: *Course* 1. 3 *credits; 2nd semester* (Carter)

131—INVESTMENTS. The general field of investments. Emphasis is placed upon problems which face the investor rather than the seller of securities. Analysis of corporation statements for investment purposes; the security market; market influences on security prices; effect of interest changes on security prices; analysis of specific types of investments; and the development of investment programs.
Prerequisites: *Courses* 1 *and* 9. 2 *credits; 2nd semester* (Palmer)

132a—C. P. A. PROBLEMS. This course is designed to prepare students for C. P. A. examinations. Advanced accounting theory is stressed through the study of a wide range of problems.
Prerequisites: *Courses* 106*a and* 106*b*. 3 *credits; 1st semester* (Haun)

132b—C. P. A. PROBLEMS. Continuation of 132a.
3 *credits; 2nd semester* (Haun)

133—INCOME TAX PROCEDURE. The preparation of income tax returns for individuals and corporations of all classes and a practical application of principles of accounting.
Prerequisites: *Courses* 106*a and* 106*b*. 3 *credits; 1st semester* (Haun)

134—ADVANCED ECONOMIC HISTORY OF THE UNITED STATES. An advanced study of English colonial policy, population growth, immigration, territorial expansion, agriculture, manufactures, tariff, labor, industrial combinations, commerce, transportation facilities, money and banking, and conservation.
Not open to freshmen and sophomores nor to students who have had Course 3 *except when doing graduate work.* 3 *credits; 2nd semester* (Jennings)

135—ADVANCED MARKETING. The literature and problems in the retail distribution of consumers' goods; wholesale distribution of consumers' goods; industrial goods; sales organizations; sales promotion and advertising and price policies.
Prerequisite: *Course* 10. 3 *credits; 1st semester* (McIntyre)

136—SALES MANAGEMENT. The case method will be used, supplemented with outside reading and written reports.
Prerequisite: *Course* 11 *or the consent of the instructor.* 3 *credits; 2nd semester* (McIntyre)

137—PROBLEMS IN MANAGEMENT. Emphasis is placed upon factory management, but an attempt is made to coordinate managerial aspects

of business in its entirety. Fundamental principles underlying efficient management; correct office procedure; economics gained through proper plant location and plant layout; the routing and storing of products; and standardized operating practices. Approximately half of the semester is devoted to the consideration and criticism of business reports dealing with various managerial problems and prepared by members of the class.

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.* — 3 *credits; 2nd semester* (Carter)

138—INVESTIGATION OF BUSINESS PROBLEMS. The methods of surveying, analyzing and actual investigation of problems of business management. It is intended for mature students who have had a thorough training in commerce and who are capable of doing research work under the guidance of the instructor. The work will involve the statistical analysis of data secured through interviews, questionnaires and otherwise, and the use of the results in determining a satisfactory solution.

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.* — 3 *credits; 2nd semester* (Palmer)

140—ADVERTISING CAMPAIGNS. The procedure necessary for developing an advertising campaign; a study of successful advertising campaigns as used by leading business houses throughout the country; and the planning and execution of an advertising campaign in conjunction with some local business house. The advertising campaign worked out by the student will be checked and tested for its effectiveness.

Prerequisites: *Course* 11, *Psychology* 5, *or the consent of the instructor.* — 3 *credits; 2nd semester* (McIntyre)

141—MANAGERIAL STATISTICS. An advanced practical course in the use of charts and graphs by the business manager; logarithmic, double logarithmic and other rulings, pin maps, organization charts, work schedule graphs, computation graphs and nomographs, plotting the error area of trends, construction of three-dimentioned surfaces, etc. Data will be drawn from the fields of accounting, advertising, personnel work, credit granting, purchasing, scheduling and the like.

Prerequisite: *An elementary course in statistics.* — 3 *credits; 1st semester* (Palmer)

142—INDEX NUMBERS. The problems of sampling, selection of formula, and weighting in the construction of index numbers; a study of the construction and use of the common index numbers of prices and production.

Prerequisite: *An elementary course in statistics.* — 2 *credits; 2nd semester* (Palmer)

143—LIFE INSURANCE. Economics of life insurance; organization and control; special forms of life insurance; fundamental principles of rate-making.

Prerequisite: *Course* 1. — 3 *credits; 1st semester* (Palmer)

144—PROPERTY AND CASUALTY INSURANCE. Public control; nature of contracts; analysis of reserve functions and rate-making processes.

Prerequisite: *Course* 1. — 3 *credits; 2nd semester* (Palmer)

145—PROBLEMS IN OFFICE MANAGEMENT. The theories and principles underlying office management and control. The course is designed for superintendents of schools, high school principals, registrars, office workers, and others.
3 *credits; summer session* (Lawrence)

147—AMERICAN BUSINESS LEADERS. Biographical sketches of a selected list of men including their business achievements and their relationships to the economic and social life of their time.
1 *credit; 1st semester* (Jennings)

148—EUROPEAN BUSINESS LEADERS. Biographical sketches of a selected list of men including their business achievements and their relationships to the economic and social life of their time.
1 *credit; 1st semester* (Jennings)

202a—SEMINAR. An extended original investigation of some specific topic with a view to giving training in methods of research and studying intensively a particular subject in the field of economics.
3 *credits; 1st semester* (Martin and others)

202b—SEMINAR. Continuation of 202a.
3 *credits; 2nd semester* (Martin and others)

203—HISTORY OF ECONOMIC THOUGHT. A survey of the history of economic thought from the ancient period to about the end of the classical school.
Prerequisite: *Course* 1. 3 *credits; 1st semester* (Wiest)

204—ECONOMIC HISTORY OF THE UNITED STATES PRIOR TO 1860. An examination of original sources and class reports; intensive investigation of all the subjects in detail prior to 1860.
Not open to students who have taken Course 134 *for graduate credit.* 2 *credits; 1st semester* (Jennings)

205—ECONOMIC HISTORY OF THE UNITED STATES SINCE 1860. A continuation of Course 204, but may be taken independently.
Not open to students who have taken Course 134 *for graduate credit.* 2 *credits; 2nd semester* (Jennings)

206—MUNICIPAL FINANCE. The budget problems of municipalities are analyzed; the debt policies critically examined; and the auditing and reporting plans compared and evaluated. Problems of taxation are dealt with incidently. Each individual conducts one or more independent investigations.
3 *credits; 1st semester* (Martin)

207—LITERATURE OF PUBLIC FINANCE. Several of the great masterpieces of government finance are read critically. Each student makes a careful study of one system or of the development of one idea. A reading knowledge of French or German is desirable, but not necessary.
3 *credits; 1st semester* (Martin)

208—ADVANCED ECONOMIC THEORY. A critical comparative analysis of "orthodox" economic theory in the light of recent criticism is attempted. The course is built around a comprehensive system of economic theory.
3 *credits; 2nd semester* (Martin)

209—COMPARATIVE BANKING AND MONETARY SYSTEMS. A comparative study of banking systems and monetary policies in the principal countries of the world; emphasis is placed upon present-day organization; the commercial bank with its monetary functions is the main theme of the course, but brief surveys of investment banking systems are also attempted.
3 *credits; 2nd semester* (Wiest)

210—RESEARCH STATISTICS. For those who wish to become connected with government, state, and industrial research bureaus; particularly devoted to the study of the practical applications of probable error formulae, in estimating the most profitable size of samples. Applications will be made in the fields of frequency series, correlation problems, and time series.

Prerequisites: *An elementary course in statistics and consent of the instructor.* 3 *credits; 2nd semester* (Palmer)

211—ADVANCED MONEY AND BANKING. A general survey of the subject is attempted with the emphasis upon its historical and theoretical aspects. 3 *credits; 2nd semester* (Wiest)

215—CONTEMPORARY ECONOMIC THOUGHT. A survey of current literature of theoretical economics. Special emphasis is placed on analysis of fundamental institutions.

Prerequisite: *Course* 1. 3 *credits; 1st semester* (Martin)

Courses in Mathematics of Finance. Advertising, Personnel, Administration and Business English are given by the departments of Mathematics, Psychology and English in the College of Arts and Sciences.

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 determined 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. Appli-

cants from institutions other than this University are also required to file an official transcript showing (a) all undergraduate work covered, (b) graduate work taken, if any, and (c) degrees received.

If the record submitted to the Registrar entitles the applicant 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 Universilty 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 for full-time work are the same as for undergraduate students in the college in which the major work is done. Part-time graduate students who are legal residents of the state pay $5.00 per credit hour. Non-residents pay $6.00 per credit hour.

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 DEGREE 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 semesters (54 weeks) in residence, and no requirements of a thesis.

Credits

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 candidate 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 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 ADVANCED DEGREES IN ENGINEERING

Two classes of advanced degrees are offered in the College of Engineering, the Master's Degree and the Professional Degree.

THE MASTER'S DEGREE. The master's degree in engineering may be obtained in residence by satisfying the same requirements as those outlined for the M. A. and M. S. degrees, providing the candidate holds the corresponding Bachelor of Science degree in engineering from this institution or from another engineering school of recognized standing. The degrees to be awarded are Master of Science in Civil Engineering, Master of Science in Electrical Engineering, Master of Science in Mechanical Engineering, Master of Science in Metallurgical Engineering, Master of Science in Mining Engineering.

THE PROFESSIONAL DEGREE IN ENGINEERING. The professional degree of Civil Engineer (C. E.), Electrical Engineer (E. E.), Mechanical Engineer (M. E.), Metallurgical Engineer (Met. E.), or Mining Engineer (E. M.) will be granted only to the graduates of the University of Kentucky, College of Engineering, who presents satisfactory evidence of professional work of outstandingly superior quality in the

engineering field of his choice, extending over a period of five years, and who submits a satisfactory thesis as further evidence of his professional attainments.

Applications for professional degrees must be made with the Dean of the Graduate School not less than one year before the degree may be granted, and have the approval of the Graduate Committee of the College of Engineering.

The Graduate Committee will pass on the qualifications of all applicants for the professional degrees. It may, at its discretion, require an oral examination.

A candidate holding the M. S. degree in engineering shall be considered to have fulfilled two years of the five-year requirement for the corresponding professional degree.

A candidate holding the B. S. degree in one field of engineering may apply for the professional degree in another field of engineering, if he has attained unusual prominence and success in that field.

The fees for the Master's Degree are the same as those for the M. A. and M. S. degrees. The fees for the Professional Degree are $15.00 registration fee and $15.00 graduation fee.

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 of 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 throughout 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 graduate 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 of 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 doctorate. 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 doctorate 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 $400.00.

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 years' 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

JESSE E. ADAMS, PH. D., 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 a large number 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 a large part to satisfy this demand.

The program of the Summer Session for 1935 will be greatly enlarged to meet the needs of both undergraduate and graduate students. A larger selection of courses is offered in undergraduate work. The graduate program is more comprehensive and embraces work adapted to the needs of public school teachers and administrators, and to nor-

mal school and college teachers. Work is offered in Agriculture, Arts and Sciences, Education, Law, Engineering, and Commerce, with special courses offered in the fields of public health, economics, and library science.

The entire plant of the University, including laboratories, libraries, and buildings is available for summer session use. In addition to the regular faculty of the University, specialists of national reputation will be brought for the 1935 program.

For information in detail write for Bulletin of the Summer Session.

DEPARTMENT OF UNIVERSITY EXTENSION

LOUIS CLIFTON, A. B., A. M., 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.

5. A woman's club service furnishing club programs and package library material as well as helps for clubs.

A separate bulletin for correspondence study is published.

Part V

THE ALUMNI ASSOCIATION

THE ALUMNI ASSOCIATION

The Alumni 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.

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.

Meetings of the executive committee are held the first Monday of each month except during July and August.

ALUMNI REPRESENTATIVES ON BOARD OF TRUSTEES

James Park, Lexington, Ky.
Louis Hillenmeyer, Lexington, Ky.
George H. Wilson, Lexington, Ky.

OFFICERS OF THE ASSOCIATION

George H. Wilson, '04, President.
Mrs. Thos. R. Underwood, '19, Vice President
Betty Hulett, '30, Secretary
James Shropshire, '29, Treasurer

EXECUTIVE COMMITTEE

W. C. Wilson, '13
Dr. E. C. Elliott, '02
Lulie Logan, '13
Wayland Rhoads, '15
Walter Hillenmeyer, '11
G. Lee McLain, '19
G. Davis Buckner, '08
Marguerite McLaughlin, '03
M. J. Crutcher, '16
L. K. Frankel, '00
Herschel Weil, '22
Mrs. Harry Herring, '16

ENROLLMENT REPORTS

DISTRIBUTION OF ENROLLMENT FOR THE YEAR ENDING JUNE 30, 1935

(Including the Summer Session of 1934)

STUDENTS	Arts and Sciences		Agriculture		Engineering		Law		Education		Commerce		Graduate		Total		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates													407	304	407	304	711
Seniors	113	144	37	33	62	1	38		55	187	63	9			368	374	742
Juniors	183	148	34	37	85		32		33	174	96	19			463	378	841
Sophomores	184	128	43	34	97		61	4	29	90	103	22			517	278	795
Freshmen	258	143	67	48	117				36	44	130	35			608	270	878
Specials	18	52	5	2	3		3		8	55	4	3			41	112	153
Auditors	3	27					1	1		11			1		5	39	44
Transients	13	15	1	1			4		9	28	2		1		30	44	74
Total	772	657	187	155	364	1	139	5	170	589	398	88	409	304	2439	1799	4238

All duplicates have been excluded.

UNIVERSITY EXTENSION	268	1141	1409
UNIVERSITY HIGH SCHOOL	158	149	307
Totals	426	1290	1716
Grand totals	2865	3089	5954

DISTRIBUTION OF ENROLLMENT FOR THE FIRST AND SECOND SEMESTERS OF 1934-35 BY COLLEGES, CLASSES AND SEX

STUDENTS	Arts and Sciences		Agriculture		Engineering		Law		Education		Commerce		Graduate		Total		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates	____	____	____	____	____	____	____	____	____	____	____	____	138	96	138	96	234
Seniors	97	114	34	26	52	1	30	____	35	99	56	8	____	____	304	248	552
Juniors	174	123	33	32	84	____	29	____	26	70	96	19	____	____	442	244	686
Sophomores	183	121	43	34	96	____	57	4	26	52	103	22	____	____	508	233	741
Freshmen	256	128	67	48	116	____	____	____	36	41	130	35	____	____	605	252	857
Specials	11	23	5	1	2	____	3	____	4	30	3	3	____	____	28	57	85
Auditors	1	25	____	____	____	____	1	1	____	11	____	____	____	____	2	37	39
Transients	6	2	1	1	____	____	____	____	5	3	1	____	1	____	14	6	20
Total	728	536	183	142	350	1	120	5	132	306	389	87	139	96	2041	1173	3214

All duplicates have been excluded.

DISTRIBUTION OF ENROLLMENT FOR THE FIRST SEMESTER OF 1934-35
BY COLLEGES, CLASSES AND SEX

STUDENTS	Arts and Sciences		Agriculture		Engineering		Law		Education		Commerce		Graduate		Total		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates													104	60	104	60	164
Seniors	92	110	26	21	51	1	27		26	69	45	7			267	208	475
Juniors	149	99	27	26	60		28		22	56	85	15			371	196	567
Sophomores	174	109	39	33	104		47	4	22	40	93	25			479	211	690
Freshmen	258	136	63	47	112				28	41	129	31			590	255	845
Specials	10	18	4	1	1		3		2	28	6	3			26	50	76
Auditors		21					1	1		10					1	32	33
Transients	3	1	1	1					4	2			1		9	4	13
Total	686	494	160	129	328	1	106	5	104	246	358	81	105	60	1847	1016	2863

DISTRIBUTION OF ENROLLMENT FOR THE SECOND SEMESTER OF 1934-35 BY COLLEGES, CLASSES AND SEX

STUDENTS	Arts and Sciences		Agriculture		Engineering		Law		Education		Commerce		Graduate		Total		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates													99	74	99	74	173
Seniors	84	99	30	23	49	1	22		31	70	50	8			266	201	467
Juniors	160	117	31	30	77		24		24	54	89	18			405	219	624
Sophomores	162	106	36	31	85		50	4	22	41	90	18			445	200	645
Freshmen	214	109	63	44	96				30	35	115	29			518	217	735
Specials	5	14	3		2		3		2	3	1	1			16	18	34
Auditors	1	12						1		1					1	14	15
Transients	4	2	1	1					4	3	1				10	6	16
Total	630	459	164	129	309	1	99	5	113	207	346	74	99	74	1760	949	2709

DISTRIBUTION OF ENROLLMENT FOR THE SUMMER SESSION OF 1934
BY COLLEGES, CLASSES AND SEX

First and Second Terms

STUDENTS	Arts and Sciences		Agriculture		Engineering		Law		Education		Commerce		Graduate		Total		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates													307	229	307	229	536
Seniors	34	44	10	11	11		13		26	125	15	1			109	181	290
Juniors	47	51	8	10	24		12		14	127	12	4			117	192	309
Sophomores	17	13	5	2	9		11	2	5	46	3				50	63	113
Freshmen	20	16	2	1	4				1	3	3				30	20	50
Specials	8	31		1	1		2		4	26	1	1			16	59	75
Auditors	2	2											1		3	2	5
Transients	7	13	1				4		4	26	1				17	39	56
Total	135	170	26	25	49		42	2	54	353	35	6	308	229	649	785	1434

All duplicates have been excluded.

	M.	W.	Total
Enrollment—1st Term	522	638	1160
Enrollment—2nd Term	350	343	693

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