Bulletin of the

UNIVERSITY OF KENTUCKY

GENERAL CATALOG

1940-41

Announcements

1941-42

Published monthly, January to September inclusive, by the University of Kentucky, Lexington. Entered as Second-Class Matter at the Post Office, Lexington, Ky., under the Act of July 16, 1894.

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

Vol. 33 JUNE No. 6

BOARD OF TRUSTEES

1941

EX OFFICIO MEMBERS

Keen Johnson, Governor
John Brooker, Superintendent of Public Instruction
W. H. May, Commissioner of Agriculture

FROM THE STATE BOARD OF AGRICULTURE

Robert Tway, Louisville, 1942
H. S. Cleveland, Franklinton, 1944
Harry W. Walters, Shelbyville, 1946

MEMBERS AT LARGE

Richard C. Stoll, Lexington, 1942
R. P. Hobson, Louisville, 1942
Lee Kirkpatrick, Paris, 1944
Mrs. Paul G. Blazer, Ashland, 1944
John S. Cooper, Somerset, 1946
Harper Gatton, Madisonville, 1946

ALUMNI MEMBERS

Louis Hillenmeyer, Lexington, 1942
Marshall Barnes, Beaver Dam, 1944
James Park, Lexington, 1946

OFFICERS OF THE BOARD

Keen Johnson, Chairman
Richard C. Stoll, Vice Chairman
D. H. Peak, Secretary*
John Skain, Treasurer

EXECUTIVE COMMITTEE

Richard C. Stoll, Chairman
R. P. Hobson
James Park
H. S. Cleveland
Lee Kirkpatrick

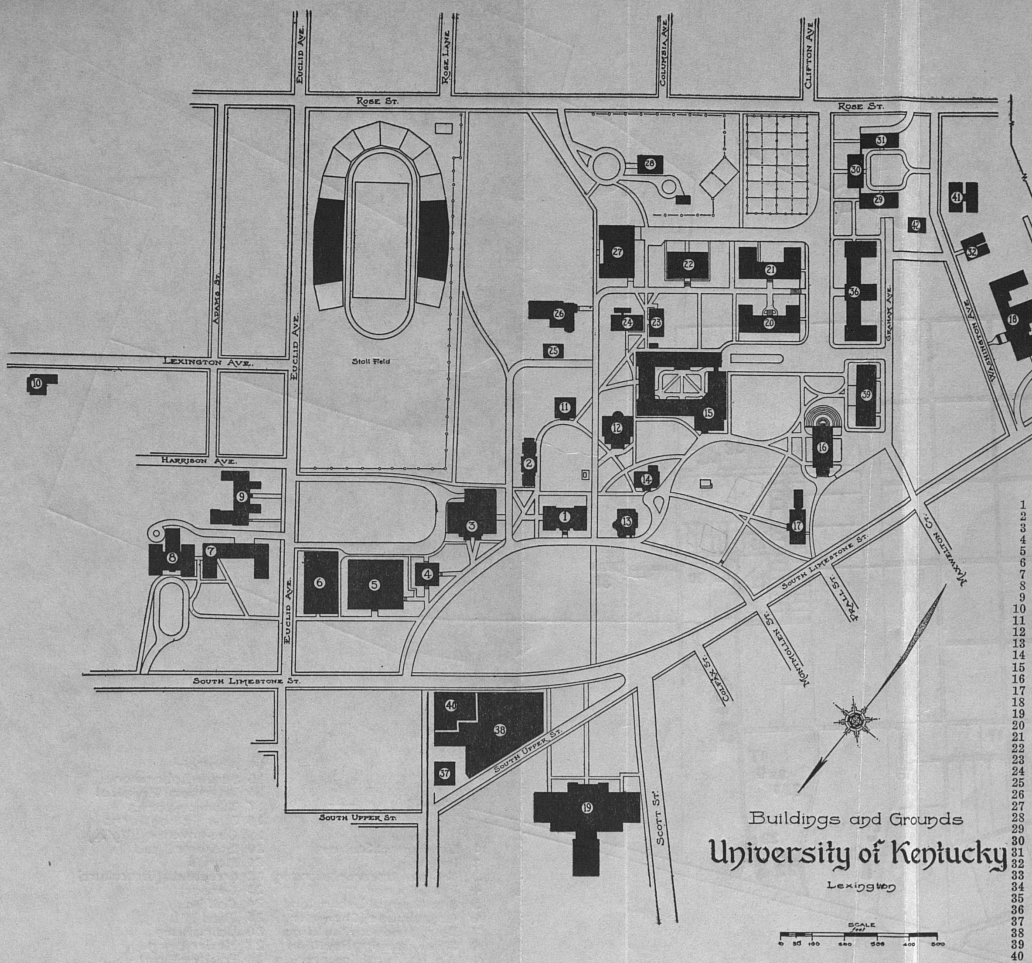
* To July 1, 1941.



EXPERIMENT STATION FARM
and Buildings
University of Kentucky, Lexington

KEY

1 Experiment Station
2 Insectary
3 Tobacco Research Laboratory
4 Residences
5 Small Animal Laboratory
6 Greenhouse (Chemistry)
7 Dairy Products Building
8 Stock Judging Pavillion
9 Agricultural Engineering Building
10 Seed Storage House
11 Fertilizer House
12 Tractor Barn
13 Mule Barn
14 Abattoir
15 Serum Laboratory
16 Veterinary Hospital
17 Tobacco Barns
18 Steer Feeding Barns
19 Observatory (U of K)
20 Storage Shed
21 Barns
22 Greenhouse (Horticulture)
23 Garages
24 Calf Barn
25 Feed Mill
26 Dairy Barn
27 Heifer Barn
28 Poultry Plant
29 Laying House
30 Brooder House
31 Piggery
32 Sheep Barn
33 New Beef Cattle Barn



Buildings and Grounds

University of Kentucky

Lexington

KEY

1 Administration Building
2 White Hall
3 Barker Hall
4 Frazee Hall
5 Student Union Building
6 Alumni Gymnasium
7 Boyd Hall
8 Patterson Hall
9 Art Center
10 Smith Hall
11 Museum
12 Miller Hall
13 Health and Hygiene Building
14 Neville Hall
15 Engineering Quadrangle
16 Memorial Hall
17 Agriculture Bldg. and Greenhouse
18 Agricultural Experiment Station
19 Education Building
20 McVey Hall
21 Kastle Hall
22 Pence Hall
23 Mining Laboratory
24 Norwood Hall and Greenhouse
25 Faculty Club
26 Lafferty Hall
27 Library
28 Maxwell Place
29 Breckinridge Hall
30 Kinkead Hall
31 Bradley Hall
32 Insectary and Conservatory
33 Dairy Products Building
34 Stock Judging Pavilion
35 Agricultural Engineering Building
36 Biological Science Building
37 Central Heating Plant
38 Service Building
39 Home Economics Building
40 Physical Education
41 Tobacco Research Laboratory
42 Nursery School

BULLETIN OF THE

University of Kentucky

LEXINGTON, KENTUCKY

GENERAL CATALOG

For 1940-41

Announcements
1941-42

ADMINISTRATIVE OFFICERS

GENERAL

Herman Lee Donovan, M. A., Ph. D., LL. D., President*
Thomas Poe Cooper, B. S., D. Sc., Acting President†
Henry Harrington Hill, M. A., Ph. D., Dean of the University*
T. T. Jones, M. A., Ph. D., Dean of Men
Sarah Gibson Blanding, M. A., Dean of Women‡
David Howard Peak, LL. B., M. A., Business Agent§
Frank D. Peterson, A. B., University Comptroller*
Leo M. Chamberlain, M. A., Ph. D., Registrar
Margaret Isadora King, A. B., B. S., Librarian
Jesse E. Adams, M. A., Ph. D., Director of the Summer Session
Louis Clifton, M. A., Director of University Extension

THE COLLEGES

Paul Prentice Boyd, M. A., Ph. D., Dean of the College of Arts and Sciences
Thomas Poe Cooper, B. S., D. Sc., Dean of the College of Agriculture and Director of the Experiment Station
James Hiram Graham, C. E., Dean of the College of Engineering
Alvin E. Evans, M. A., Ph. D., J. D., Dean of the College of Law
William Septimus Taylor, M. A., Ph. D., Dean of the College of Education
Edward Wiest, M. A., Ph. D., Dean of the College of Commerce
William Delbert Funkhouser, M. A., Ph. D., D. Sc., Dean of the Graduate School.

---

* July 1, 1941.
† July 1, 1940, to June 30, 1941.
‡ Resigned July 1, 1941.
§ Emeritus, July 1, 1940.

CONTENTS

	Page
Publications and Sources of Information	6
Calendar	7
University Calendar	8
Registration Schedules, 1941-42	9
Part I. General Information of Special Interest to the Prospective Student	11
The University of Kentucky	13
Admission to the University	14
Fees and Expenses	18
Residence Halls for Women	21
Residence Halls for Men	22
Opportunities for Financial Help	23
What Is Expected of the Student	23
Opportunities Outside the Classroom	29
The Facilities of the University	35
Part II. Educational Opportunities at the University of Kentucky	39
Degrees and Curricula	41
College of Arts and Sciences	44
College of Agriculture	61
College of Engineering	72
College of Law	83
College of Education	88
College of Commerce	105
Graduate School	111
Summer Session	122
Department of University Extension	123
Part III. Statement of Courses Offered at the University	125
Index of Departments	127
Key to Course Descriptions	128
Part IV. Special Services of the University	299
Part V. The Administrative and Instructional Personnel of the University	307
Administrative, Instructional, and Experiment Station Staff	309
Administrative, Secretarial, and Clerical Organization	328
Part VI. Statistical Summary	335
Index	343

PUBLICATIONS AND SOURCES OF INFORMATION

The following publications are issued by the University for the purpose of giving prospective students and others necessary information about the institution and its various divisions. Opposite each publication is listed the office or offices from which it may be obtained.

Bulletin of General Information	Registrar's Office
General Catalog	Registrar's Office
Summer Session Bulletin	Director of Summer Session
Law Bulletin	College of Law or Registrar's Office
Graduate Bulletin	Graduate School or Registrar's Office
Commerce Bulletin	College of Commerce or Registrar's Office
Agriculture Bulletin	College of Agriculture or Registrar's Office

In order to assist those who may wish special information about some part of the University's program, there are listed below the names of officials to whom inquiries of various types may be sent. In each case, the University of Kentucky, Lexington, Kentucky, is the post office address.

The general policies of the University	President of the University
General information, all admissions, and transcripts of records	Registrar
Living accommodations, student help, social affairs	Dean of Men or Dean of Women
Information about a particular college and its program	Dean of the College
Graduate work	Dean of the Graduate School
Summer School	Director of the Summer Session
Class extension and correspondence study	Director of University Extension
Agricultural extension	Director of Agricultural Extension

CALENDAR

1941

July

S	M	T	W	T	F	S
....	....	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	....	....

August

....	....	....	....	....	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	....	....	....	....	....	....

September

....	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	....	....	....	....

October

....	....	....	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	....

November

....	....	....	....	....	....	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	....	....	....	....	....	....

December

....	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	....	....	....

1942

January

S	M	T	W	T	F	S
....	....	....	....	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
....	....	....	....	....	....	....
....	....	....	....	....	....	....

March

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	....	....	....	....

April

....	....	....	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	....	....

May

....	....	....	....	....	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	....	....	....	....	....	....

June

....	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	....	....	....	....

July

S	M	T	W	T	F	S
....	....	....	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	....

August

....	....	....	....	....	....	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	....	....	....	....	....

September

....	....	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	....	....	....

October

....	....	....	....	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

November

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	....	....	....	....	....
....	....	....	....	....	....	....

December

....	....	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	....	....

UNIVERSITY CALENDAR

1941-1942

First Semester

1941	
September 15	Monday—Classification tests and physical examinations for all new students
September 16	Tuesday afternoon—Freshman registration
September 16	Tuesday—Meeting of Board of Trustees
September 17	Wednesday forenoon—Freshman classification
September 17-18	Wednesday afternoon and Thursday—Registration and classification of upper classmen
September 19	Friday—Class work begins
September 29	Monday—Last date on which a student may enter an organized class
October 20-21	Monday and Tuesday—Period for filing application for degrees to be granted in 1941
November 20	Thursday—Thanksgiving holiday
December 9	Tuesday—Meeting of the Board of Trustees
December 19	Friday, 8 a.m.—Christmas holiday begins
1942	
January 5	Monday, 8 a.m.—Christmas holiday ends
January 24–31	Saturday to Saturday—Final examinations

Second Semester

February 2	Monday—Classification tests and physical examinations for all new students
February 3-4	Tuesday and Wednesday—Registration for second semester
February 5	Thursday—Instruction resumed
February 16	Monday—Last date on which a student may enter an organized class
March 2	Monday—Date for filing application for degrees by students who were not in college the first semester
April 2–7	Thursday 8 a.m. to Tuesday 8 a.m.—Easter vacation
April 7	Tuesday—Meeting of Board of Trustees
May 27	Wednesday evening—Military graduation exercises
May 28–June 4	Thursday to Thursday—Final examinations
June 4	Thursday—Baccalaureate services
June 4	Thursday—Meeting of Board of Trustees
June 5	Friday—Seventy-Fifth Annual Commencement
June 8–13	Monday to Saturday—Junior Club Week

Summer Session

June 15	Monday—Registration for first term of summer school
July 20	Monday—Registration for second term of summer school
August 21	Friday—Summer school commencement
August 22	Saturday—Summer school ends

REGISTRATION SCHEDULES FOR 1941-42

September, 1941

September 15 Monday—All freshmen and all other new students will report in Memorial Hall for classification tests and physical examinations. All freshmen and all new students, except those enrolling in the graduate school, must have the tests and examinations completed before they will be permitted to register. The student will find it advantageous to report as early as possible after 8 a.m.

September 16 Tuesday, 1:30 p.m. to 4:30 p.m.—Freshman registration, according to an alphabetical schedule

September 17 Wednesday, 8 a.m. to 12 noon—Freshman classification.

September 17-18 Wednesday afternoon and Thursday—Registration and classification of all upper classmen according to the following alphabetical schedule:

September 17

Wednesday afternoon

1:30 to 2:20—T through Z
2:30 to 3:20—S
3:30 to 4:20—P through R

September 18

Thursday morning	Thursday afternoon
8:00 to 8:50—M through O	1:30 to 2:20—C through D
9:00 to 9:50—K through L	2:30 to 3:20—A through B
10:00 to 10:50—H through J	3:30 to 5:00—Miscellaneous
11:00 to 11:50—E through G	A through Z

Freshmen who register late should register with upper classmen in alphabetical groups.

September 19 Friday—Class work begins.

February, 1942

February 2 Monday—Classification tests and physical examinations for new students. All freshmen and all new students, except those enrolling in the graduate school, must have the tests and examinations completed before they will be permitted to register. All new students should report to the Registrar's Office for these tests and examinations

February 3-4 Tuesday and Wednesday. Registration of all students according to the following alphabetical schedule:

February 3

Tuesday morning	Tuesday afternoon
8:00 to 8:50—A through B	1:30 to 2:20—K through L
9:00 to 9:50—C through D	2:30 to 3:20—M through O
10:00 to 10:50—E through G	3:30 to 4:20—Miscellaneous A through O
11:00 to 11:50—H through J	

February 4

Wednesday morning	Wednesday afternoon
8:00 to 8:50—P through R	1:30 to 4:30—Miscellaneous A through Z
9:00 to 9:50—S	
10:00 to 10:50—T through Z	
11:00 to 11:50—Miscellaneous A through Z	

February 5 Thursday—Instruction resumed.

PART I

GENERAL INFORMATION OF SPECIAL INTEREST TO THE PROSPECTIVE STUDENT

THE UNIVERSITY OF KENTUCKY

The University of Kentucky is located at Lexington, an urban community of about 65,000 population. It is a state-supported institution operated under the direction of a board of trustees of fifteen members. The membership of this board includes the Governor, the Superintendent of Public Instruction, and the Commissioner of Agriculture, ex officio, and twelve members appointed by the Governor, three of whom are alumni of the University and three, members of the State Board of Agriculture. The University is one of a number of institutions known as land-grant colleges which were established by the Morrill Act of 1862 and which have continued to receive federal assistance under the provisions of this and subsequent laws relating to the teaching of agriculture and the mechanic arts and to the provision of agricultural experiment stations and extension services in agriculture and home economics.

The University of Kentucky is on the approved list of the Association of American Universities, and is a member of the Southern Association of Colleges and Secondary Schools and the Kentucky Association of Colleges and Secondary Schools. It is accredited in its respective colleges or departments by the Association of American Law Schools, the American Association of Collegiate Schools of Business, the American Association of Schools and Departments of Journalism, the National Association of Schools of Music, and the Engineers' Council for Professional Development.

The major function of the University is that of instruction. For the performance of this function it is organized into the College of Arts and Sciences, the College of Agriculture, the College of Engineering, the College of Law, the College of Education, the College of Commerce, the Graduate School, and a Department of University Extension. Residence instruction is given through two semesters of eighteen weeks each, and through two summer terms of five weeks each.

In addition to giving instruction to its student body, the University contributes to the welfare of the state through research, experimentation, and public service. While all departments make important contributions along these lines, certain divisions and bureaus have been established specifically for these purposes. Included in this group are the Experiment Station and the Extension Division of the College of Agriculture, the Bureau of Business Research, the Bureau of Government Research, the Bureau of School Service, the Bureau of Source Materials in Higher Education, the Personnel Bureau, the Publicity Bureau, the Teachers Placement Bureau, and the Department of University Extension

The University of Kentucky began as a part of Kentucky University under a cooperative plan authorized by the legislature in 1865. The purpose of this plan was to unite sectarian and public education under one organization. This experiment was tried for a number of years. In the meantime, the federal funds authorized under the Morrill Act were used to develop agriculture and mechanic arts in Kentucky University. In 1878, when the people of Kentucky decided to establish a state institution of higher learning, the College of Agriculture and Mechanic Arts was separated from Kentucky University and reestablished on land given by the City of Lexington and the County of Fayette. Thirty years later the legislature changed the name of the institution to the State University of Kentucky, and gave it additional financial support. In 1916 the name was again changed, this time to the present title, and additional maintenance was arranged by legislative act.

ADMISSION TO THE UNIVERSITY

Students are admitted to the University of Kentucky as freshmen; with advanced standing from other institutions; as special students; and as auditors. Admission to certain colleges is also governed by special regulations.

All students, irrespective of their classification, are required to register on designated days at the beginning of each semester, at such places and according to such schedules as may be announced by the Registrar's office. **The period for registration closes on the second Monday following the beginning of classes.**

Applications for admission to the University should be made to the Registrar. Certified copies of high school credentials and of work done in other institutions should be submitted to the Registrar's office in advance of the registration period. Failure to file credentials in time for checking before the registration period will delay the student in arranging his program. **All admissions, including those to the professional schools and the Graduate School, must be passed on by the Registrar's office. Students who come to the University without having had their admission approved, do so at their own risk. The University reserves the right to refuse consideration of applications not made before the beginning of the registration period.**

Admission to the Freshman Class

An applicant for admission to the freshman class should have his principal submit a statement of his high school work on the blank furnished by the Registrar's office.

It is always of advantage to any student, as well as to his principal, if a transcript of the student's record is made up and mailed before the close of the school year. It is difficult, if not impossible, for the principal who is away on his vacation to comply with a request for this information.

Graduates of Kentucky high schools accredited by the Kentucky Association of Colleges and Secondary Schools are admitted to the University on certificate, provided they have fifteen units of high school work acceptable to the University. These fifteen units must include **five basic units as follows: three in English, one in algebra, and one in plane geometry.** The remaining ten units, within the limitations shown in the following outline of entrance requirements, may be distributed among the other subjects usually offered in high school, except that not more than four units may be offered in Group B, usually referred to as the miscellaneous or vocational group.

Outline of entrance requirements. The figures in the following summary indicate the maximum and minimum number of units that may be offered in any subject. The minimum amount of credit allowed in any subject is one-half unit. In addition to the five basic units, a sufficient number of units to make a total of fifteen must be offered from Groups A and B, **provided that not more than four units may be offered from Group B.**

Basic Units

English, 3. Algebra, 1. Plane Geometry, 1

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 Hyg.	½—1½
		Zoology	½—1

---

* For the fourth unit of English, there may be substituted a unit in journalism, public speaking, or dramatics. Or if four units are offered in English, an addiitonal unit in these subjects may be offered under group B, provided the limit of four units in this group is not exceeded.

† 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 Advanced Civics.

Group B

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

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

Students who come from Kentucky high schools which are not accredited and students who have not graduated from high school may be admitted to the University if, in addition to meeting the above requirements, they successfully pass examinations for admission.

Applicants for admission to the freshman class who have graduated from accredited high schools outside of Kentucky are admitted on certificate provided their high school work meets the above requirements and **provided they rank in scholarship in the upper two-thirds of their graduating classes.** Students who are graduates of non-accredited high schools outside of Kentucky may be admitted if they successfully pass examinations for admission.

Admission to Advanced Standing

Students coming from other institutions of higher learning are required to present certified transcripts of all work done elsewhere. Work done at a fully accredited college or university ordinarily will be recognized credit for credit at the University of Kentucky, except that the number of credits accepted may not exceed the number of quality points presented. To be accepted on transfer from another institution a student should have made a standing which would insure normal progress toward a degree. He must also present evidence of honorable dismissal or leave of absence. Credentials from institutions of foreign countries are submitted to the U. S. Office of Education for evaluation and are accepted by the University only on the basis of this evaluation.

Advanced standing in the University may also be secured by passing an examination on each subject for which credit is desired, provided there is evidence of a serious intent to continue a program of study leading to a degree.

Before a transfer student can become a candidate for a degree he must have met the entrance requirements outlined above for admission to the freshman class.

---

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

** Double periods required.

Admission as a Special Student

A graduate of another university or college may enter the University to pursue any special work. Under the following conditions, other persons may be admitted as special students regardless of whether they have met the entrance requirements for admission to the freshman class.

1. They must be prepared to do the work desired
2. They must be at least twenty-one years of age.

Before a special student can become a candidate for a degree he must have satisfied the entrance requirements for admission to the freshman class.

Admission as an Auditor

By payment of the required fees any person may be admitted to a class or classes as an auditor. A student regularly enrolled in any college must apply to the Dean of the college in which he is registered in order to be an auditor. Other persons should apply to the Registrar's office for admission. No credit can be given for a class audited, nor is the student permitted an examination for credit.

Admission to Colleges and Schools

College of Arts and Sciences. Admission to this college is governed by the general admission requirements of the University outlined on the preceding pages.

College of Agriculture. Admission to this college is governed by the general admission requirements of the University outlined on the preceding pages.

College of Engineering. Admission to the freshman class of the College of Engineering is limited to students ranking in the upper eighty per cent of the class on the University placement tests. It is strongly recommended that a student desiring to enter the College of Engineering, in addition to meeting general admission requirements, 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 in these subjects to make up the deficiency.

College of Law. An applicant for admission to the College of Law must offer sixty college credits (exclusive of physical education and military science) completed in residence in colleges other than Law, six of which must be in English. A standing of 1.0 is the minimum qualitative requirement, but in other than exceptional cases an applicant will not be accepted unless he has maintained a standing of 1.3 on all previous work. While there is no prescribed pre-law curriculum, the applicant's record is evaluated in terms of its relationship to the study of law, and in terms of the requirements of the Association of American Law Schools which provide

that the sixty semester hours shall be "exclusive of credit earned in non-theory courses in military science, hygiene, domestic arts, physical education, vocal or instrumental music, or other courses without intellectual content of substantial value". Applications for admission to the College of Law should be made to the Registrar's office.

College of Education. Admission to the freshman class of the College of Education is limited to students ranking in the upper eighty per cent of the class on the University placement tests. In order to transfer to the College of Education from another institution or from another college of the University, a student must have a standing of 1.0 or higher. The applicant must meet the general admission requirements of the University outlined on the preceding pages.

College of Commerce. Admission to the freshman class of the College of Commerce is limited to students ranking in the upper eighty per cent of the class on the University placement tests. The applicant must meet the general admission requirements of the University outlined on the preceding pages.

The Graduate School. Graduates of fully accredited institutions of higher learning may be admitted to the Graduate School upon evidence of graduation and an official transcript of undergraduate courses. However, such admission does not obligate the University to accept all credit granted by the undergraduate school. When full credit is not granted, the student will be required to do more than the normal amount of work to complete a graduate degree. Applications from graduates of institutions not fully accredited will be individually evaluated. However, students from such schools are encouraged to secure a bachelor's degree from a fully accredited institution before applying

FEES AND EXPENSES

Fees at the University vary according to the privileges granted and the classification of the student, that is, as a resident, non-resident, full-time, part-time, auditor, etc. The following table gives the schedule of regular fees for each semester. Checks are accepted by the University in payment of fees, room rent, and board, if they are made out for the exact amount due. That is, no money is returned on a check. In transmitting funds to students, drafts, money orders, and certified checks should be used. **All checks should be made payable to "University of Kentucky." All fees should be paid at registration and not sent in advance.**

Fees for Graduation and for Special Privileges

Graduation Fee. Candidates for the bachelor's degree will be charged a graduation fee of $9.00. This will include the rental of cap and gown, diploma fee, and senior dues. Candidates for advanced

SCHEDULE OF REGULAR FEES PER SEMESTER

Classification	Resident Students*				Non-Resident Students*			
	General Deposit[1]	Registration Fee[2]	Incidental Fee	Total	General Deposit[1]	Registration Fee[2]	Incidental Fee	Total
Full-Time Students:								
All Colleges Except Law	$6.00	$5.00	$45.00	$56.00	$6.00	$5.00	$75.00	$86.00
College of Law	6.00	5.00	49.00	60.00	6.00	5.00	79.00	90.00
Part-Time Students:								
All Undergraduate Except Law	$6.00†	$4.00	$4.00 per credit		$6.00†	$4.00	$6.00 per credit	
College of Law (Undergraduate)	6.00†	4.00	5.00 per credit		6.00†	4.00	7.00 per credit	
All Graduate Work	6.00†	4.00	5.00 per credit		6.00†	4.00	7.00 per credit	
Auditors:								
In lecture and recitation courses		$2.00	$1.00 per credit			$2.00	$1.00 per credit	
In studio and laboratory courses		2.00	4.00 per credit			2.00	4.00 per credit	

* The rules of the University respecting resident and non-resident students read as follows:

a. No person over 21 years of age will be considered eligible to register in the University as a resident of the State of Kentucky unless he has resided in the State for twelve consecutive months next preceding the date of his original enrolment.

b. No person will be considered to have gained or lost his resident status during his sojourn in the University as a student.

c. The legal residence of minors will follow that of the parents or legal guardian except in the case of minors who have always resided in Kentucky but whose legal guardians are residents of other states.

d. Aliens who have received their first citizenship papers may register as residents of Kentucky under the foregoing provisions.

[1] 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, with the exception of room reservation.

[2] The registration fee is payable each semester by all students and is not returnable.

† Not charged students taking fewer than 9 hours.

degrees will be charged a fee of $15.00, which will include the above and in addition the candidate will be presented with the hood. **Graduation fees are payable not later than the fourth day preceding the commencement.**

Late Registration. Students entering the University after the regular two-day registration period will be charged an additional fee of $1.00 per day, the total not to exceed $3.00.

Special Examination. A fee of $2.00 will be charged for a special examination in a single course.

Special Fees for Students in Applied Music

Students taking courses in applied music are charged the following special fees in addition to the regular fees.

$36.00 per semester for each student for three-credit courses in Applied Music.

$22.50 per semester for each student for two-credit courses in Applied Music.

$5.00 per semester for each student for rental of University practice room.

Special Fees for Students in Engineering

All students in the College of Engineering are required to pay a special fee of $5.00 for each summer's work required in the curriculum pursued. (See outlines of engineering curricula.)

Privileges to War Orphans

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 4376-13 of the 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, Kentucky.

Refund of Fees

The regular registration fee and any late registration fee assessed are never 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. **A refund will not**

be granted unless the student makes his withdrawal official. A student wishing to make an official withdrawal should call at the Registrar's office for instructions. All refunds must be claimed within the fiscal year of the withdrawal.

Living Expenses

The minimum cost of room and board in the residence halls for women is $280 a year and the maximum cost is $320 a year, payable quarterly in advance. Rooms in the men's residence halls range in price from $37.50 to $49.00 a semester and board may be obtained in the University cafeteria for a minimum of $5.00 per week.

Following are estimates of **minimum** expenses for an academic year, not including the general deposit. The actual expenses, of course, vary greatly according to the habits of economy or extravagance of the individual student. Fees for law students are $8.00 more than the amounts shown, and for law and engineering students the cost of books and supplies may be greater than the estimate shown.

Item of Expense	Resident Students*		Non-Resident Students*	
	Men	Women	Men	Women
Fees	$100.00	$100.00	$160.00	$160.00
Board and Room	255.00	280.00	255.00	280.00
Laundry and Cleaning	20.00	20.00	20.00	20.00
Books and Supplies	30.00	30.00	30.00	30.00
Incidentals	50.00	50.00	50.00	50.00
Totals	$455.00	$480.00	$515.00	$540.00

RESIDENCE HALLS FOR WOMEN

The University maintains three residence halls for women. These buildings are modern, well furnished, thoroughly heated and satisfactorily lighted. The atmosphere is homelike and pleasant. The residence halls are under the general supervision of a director and there is a head resident in each of the buildings. In addition there is a manager who has charge of the plant, the dining room and the general conduct of the business of these halls. An infirmary is maintained and is under the supervision of two trained nurses. Any parent who sends his daughter to the University may be assured that she will be given excellent care physically, mentally and spiritually.

Application for reservation in the women's halls should be made to the Director of Residence Halls for Women and should be accompanied by a deposit of $10.00 which will be refunded at the end of the year if no damage has been done to walls, floors or furniture. If a

* For distinction between resident and non-resident students see p. 19.

room is reserved and not occupied the deposit will be forfeited unless notice of cancellation is given to the Director of Residence Halls for Women ten days before the opening of the term for which the reservation is made.

The minimum cost of room and board in the residence halls for women is $280 a year; the maximum cost is $320, both payable quarterly in advance. No refunds on room and board are allowed for temporary absences from the residence halls. If a student is forced to withdraw on account of illness a refund of 80 per cent of the unused portion of her quarterly payment will be made, in which case the refund dates from the day the student officially withdraws in the Registrar's office.

The University maintains two cooperative houses for women, one housing twenty students, the other twelve students. In these houses the students do their own work, thereby reducing living expenses to a minimum. There is great demand for reservations in the cooperative houses and only those women are chosen who seem best qualified to carry on the high traditions of these houses. Application for reservation in the cooperative houses should be made to the Assistant Dean of Women.

Junior and senior women may live in town, but they must secure permission from the Dean of Women and the residence must be approved by the Dean of Women

RESIDENCE HALLS FOR MEN

There are three residence halls for men at the University of Kentucky. Like those for women, they are modern, well furnished, and comfortable in every respect. They are under the supervision of a resident director.

Applications for reservations in the men's halls should be made to the Dean of Men and should be accompanied by the required deposit of $5.00, which 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 deposit will be forfeited unless notice of cancellation is given the Dean of Men ten days before the opening of the term for which the reservation is made

The University does not maintain dining halls in the men's dormitories. However, the University cafeteria, located in the Student Union, serves excellent and inexpensive meals.

Many families living near the University rent rooms to men at reasonable rates. Board may be had at private houses for from $5.00 to $7.00 a week. The fraternities have their own houses and provide room and board for their members at moderate cost.

OPPORTUNITIES FOR FINANCIAL HELP

Self-Help. Many students pay a portion of their expenses at the University through part-time employment within the institution or outside. While the Y.M.C.A., the Dean of Men, and the Dean of Women render all assistance possible in helping students to obtain part-time employment, positions cannot be found for all who need such help. It is advised that no student attempt entire self-support, and **all new students are urged to come prepared to meet their expenses in full for at least one semester.** The student who is to be partially self-supporting should seek advice in adjusting his study load to the end that his employment will not prevent him from obtaining the largest benefit from his courses.

Funds, Scholarships, and Fellowships. To a limited extent financial assistance is rendered worthy students through certain loan funds and through scholarships and fellowships. Applications for loans should be made to the Dean of Men or the Dean of Women, and for graduate scholarships and fellowships to the Dean of the Graduate School. Freshmen are not eligible for loans or scholarships.

WHAT IS EXPECTED OF THE STUDENT

The University has adopted certain rules and regulations and has made certain provisions designed to bring about the best adjustment between the institution and the student and to insure the fullest development of the latter, intellectually, spiritually, and physically. Registration by a student carries with it the obligation to cooperate to the fullest extent in observing the regulations and traditions of the institution, in making the most of the state's investment in him, and in furthering the welfare of the University.

The Dean of Men and the Dean of Women

The Dean of Men and the Dean of Women assist students with their problems and aid them in their adjustment to college life. Their offices serve as a general clearing house for matters pertaining to the welfare of all students. The Dean of Men and the Dean of Women seek at all times to help each student gain his maximum academic and personal development through normal, interesting, and important activities.

Personnel Service

The work of the Dean of Men and Dean of Women in the field of student counseling and adjustment is supplemented by the Personnel Offices, and the offices of the Deans of the various colleges. Students are expected to seek the services of these agencies and to cooperate with them.

Health Service

The University feels a special obligation to look after the health of students. It has, therefore, established a dispensary under the direction of able medical men. This dispensary is open to students every week day of the college year. No fee is charged except a small amount included in the incidental fee at the opening of the University sessions. The staff consists of the director, one full-time physician, and two part-time physicians. In addition there are two registered nurses and a technician. The dispensary has X-ray machines and other laboratory equipment equivalent to that found in any first-class clinic. The medical staff of the University, without charge, will call on students who are ill in their rooms.

Rules Affecting the Student

The following list of rules does not include all of the regulations of the University, but only the most important of those relating to studies, examinations, attendance, and discipline.

Commitee on Scholarship and Attendance. This is a committee, composed of one member from each college, the Dean of Men, the Dean of Women, and the Registrar, appointed to consider cases of students delinquent in studies or attendance referred to it by the deans of colleges, and to consider appeals for reinstatement of students dropped for unsatisfactory work.

Minimum Program. In all colleges a regular student must carry at least 12 credits each semester.

Extra Work. To be eligible to carry extra credit-hours of work a student must have attained the preceding semester a standing of at least 2. Students with a standing of 2 may be assigned extra work (not to exceed three credit-hours) by permission of the Dean of their college. No student in the College of Law will be allowed to carry more than 16 credit-hours of class work a week. The Dean may assign 14, but permission to carry one or two extra credit-hours must be obtained from the Committee on Scholarship and Attendance.

Auditors or Visitors. No instructor is authorized to admit an auditor to any of his classes except on presentation of an auditor's card from the Registrar's office. **A student who visits a class as an auditor is not allowed an examination for credit.**

Probation. A regular student who fails to pass in three-fourths of the normal load required by his college in the preceding year (preceding semester for 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.

Inferior Work in English. Any instructor who finds the written work of any student seriously defective in its English is expected to report the case, together with specimen papers, to a committee consisting of the Dean of the student's college and the Head of the Department of English, which shall have power to require additional work in composition without credit.

Reports on Unsatisfactory Scholarship and Attendance. Students who are doing unsatisfactory work or who are irregular in attendance are reported to their deans. Such a student is under the special supervision of his Dean. If after a suitable length of time it becomes apparent that no improvement is being made, the student is reported by his Dean to the Committee on Scholarship and Attendance.

Repeated Failures. The head of a department may refuse to allow a student to register in a course for the third time.

Classification. A student who has a standing of 1 or more and who is allowed to carry sufficient work to complete his requirements for graduation by the close of the Summer Session is classified as a senior for the current year.

A student in any college, to be classified as a junior, must have within 10 credits of the normal amount of work, and a standing of 1; to be classified as a sophomore, he must have within 10 credits of the normal amount, with a standing of 1.

Extension Work. Not more than 25 per cent of the credit required for the bachelor's degree may be gained by extension.

Not more than twelve credits of extension work done by a student during one calendar year will be accepted by the University, unless it may be definitely shown that the work has been done under conditions where the student has been engaged in full time study and has not been otherwise employed. This includes extension work done in other institutions.

Students are limited to twelve credits of extension work during the senior year.

A student lacking twelve credits or less of graduation may not offer more than six of the last twelve credits by extension.

Students may not satisfy in excess of one-half the requirements for a major by extension courses.

Examinations for Credit. A student may be given a special examination for college credit, provided the request for the examination be approved by the Registrar, the Dean of his college, and the Head of the Department concerned. Application should be made in writing, on a form provided by the Registrar. **Credit by examination may not be earned by a student in courses which he has**

failed, in courses which he has audited, or in courses for which he has had paid instruction by a member of the University staff empowered to grant credit in the courses or having any authority over them.

Absences. The instructor shall keep a record of absences, and when in his opinion the number of absences for any student has become excessive or when absences appear to be unjustified, he shall report such student to his Dean, together with the total number of absences and their dates. All absences occurring on the day immediately following a holiday shall be reported to the Registrar at the time of their occurence.

A student who has been absent for more than one-fourth of the total number of class exercises in any course is barred from the final examination in that course. Absences shall be counted beginning with the first day of recitations, and absences incurred because of late entrance shall be counted.

All absences shall be considered unexcused except when an excuse is given by the Scholarship and Attendance Committee for absence on the day immediately preceding or following a holiday. A student with an unexcused absence on the day immediately preceding or following a vacation or holiday shall have a penalty of one credit (and one quality point) added to his requirements for graduation.

A student may be dropped from a course because of absence, upon recommendation of the Dean and the instructor. When, because of absence, the Dean and the instructor recommend that a student be dropped from the course, the name of the student and the number of the course shall be reported to the Registrar by the Dean, and the student shall be dropped by the Registrar. When a student is dropped from a class because of absences the instructor shall report the grade the student is making at the time he is dropped

A student must make a satisfactory explanation to the instructor for any absence before he shall be permitted to make up the work missed. Absences due to officially authorized trips such as those of athletic teams, of musical, oratorical and dramatic organizations, and of University classes shall be considered as having been satisfactorily explained to the instructor upon presentation of a certificate from the proper official.

Conduct. In issuing rules for the regulation of the affairs of the University and the government of its students, it is not deemed necessary to set out many details. The University expects all students to hold to the strictest standards of honesty in all University work and expects them to conduct themselves in a seemly manner, bearing in mind that their conduct determines in a large measure the reputation of the institution.

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 examination.
WP—Withdrew, passing.
WF—Withdrew, failing.

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 throughout his course of 127 semester hours, would have 127 points and 127 credits, and a standing of one. An average mark of B would give the student 254 points and 127 credits, and a standing of two. When a semester's work is to be considered, "standing" is understood to be the ratio of the number of points gained to the number of credits scheduled.

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

Recording of Marks. After November 1 in the first semester, March 20 in the second semester, and the tenth class day in the summer terms, marks for students who are dropped or withdrawn from classes will be recorded in the Registrar's office as reported by instructors. Prior to these dates in each term there will be no marks recorded.

Prizes and Awards

The following prizes and awards are available at the University of Kentucky, primarily for excellence in scholarship.

General

Algernon Sidney Sullivan Medallions (Three)
Elizabeth Waddy Scholarship (Members of Alpha Xi Delta)
Mortar Board Prizes (Two cups)
Phi Beta Kappa Awards
Samuel M. Wilson Library Prizes (For book collections by undergraduate students, $30 and $20)
Young Men's Christian Association Key

College of Arts and Sciences

Chemistry Department
- Willard Riggs Meredith Memorial Award

German Department
- Set of Goethe's Works, by Carl Scherz Memorial Foundation

History Department
- Charles S. Brent Memorial Prize in American History (Books purchased with income from $1,000)
- Philo M. Bennett Prize ($25.00)

Military Department
- Several awards are given in this department for scholarship, citizenship, efficiency in drill, and marksmanship.

College of Agriculture

Alpha Zeta Freshman Medal
Alpha Zeta Merit Key
Block and Bridle Cups
Block and Bridle Plaque
Phi Upsilon Omicron Freshman Medal
Jonas Weil Memorial Scholarship
Sears-Roebuck Agriculture Foundation Scholarships

College of Engineering

E. B. Ellis Prize ($100)

College of Law

Lawyers Co-operative Publishing Co. Prize (Law Dictionary)
Nathan Burkan Prize ($100)

College of Commerce

Chi Omega Sorority Prize ($25.00)

Requirements for Graduation

To be eligible for graduation from any college of the University, a student must have gained the specified number of credits, plus an equal number of points—that is, a standing of 1. At least the senior year, 30 credits, must have been in residence, the last semester in the college through which the degree is obtained.

Two semesters of work at the University of Kentucky will satisfy the residence requirements for the bachelor's degree. Three summer terms are considered equivalent to one semester. For requirements for graduate degrees see pp. 111 to 119. **The University reserves the right to withhold the transcript, diploma, or degree of a student until he has discharged all financial and other obligations to the University and its auxiliary agencies.**

Filing of Application. To be eligible for a degree at any commencement, the student must file with the Registrar an application for such degree at least four weeks prior to the commencement date. **The University requires the student to use his full and proper name in registering, in applying for a degree, and in other similar circumstances. The institution accepts no responsibility for difficulties arising from a student's failure to comply with this requirement.**

Commencement Honors. Students are graduated "With High Distinction" who attain a standing of 2.6 or higher for at least three years.

Students are graduated "With Distinction" who attain a standing of 2.4 up to 2.6 for at least three years.

A student who does only his last two years at the University may receive the appropriate commencement honors if he attains a standing of .2 greater than the above. The amount of credit is the basis of determining the two years' work, and varies according to the degree for which the student is an applicant.

OPPORTUNITIES OUTSIDE THE CLASSROOM

The University emphasizes the development of the whole individual. Toward this end it provides a diversified program of extra-class activities. These activities are briefly reviewed in the following paragraphs.

Special Cultural Opportunities

Convocations. All-University convocations are held in Memorial Hall. At these convocations students and faculty are given opportunity to hear able speakers discuss a variety of current problems. The program from January, 1940, through December, 1941, was as follows:

February	Dr. Alfred H. Upham, President of Miami University, Oxford, Ohio Subject: "Accent on Youth" Dr. Lulu E. Sweigard, Instructor in Physical Education, New York University Subject: "Ease, Poise, and Posture in Everyday Living"
March	Dr. Hans Leonhardt, formerly of Danzig Subject: "Hitler's Aims"
June	Dr. Frank L. McVey, President of the University of Kentucky Subject: "Turning the Page"
September	Dr. Thomas P. Cooper, Acting President of the University of Kentucky Subject: "Kentucky's University" Professor B. A. Shively and Professor A. D. Kirwan, of the University's Coaching Staff Subject: "Debunking Football"

October	Dr. Percy H. Boynton, Department of English, University of Chicago Subject: "Literature and American Life"
November	Mrs. Lillian M. Gilbreth, President of Gilbreth Incorporated, Montclair, New Jersey Subject: "Skills and Satisfactions"

Sunday Musicales. These musical programs are arranged for the enjoyment of the students, faculty, and friends of the University. There is no admission charge. The program for 1940-41 was as follows:

First Semester

November 10—
Arthur Kent, Baritone, of the Metropolitan Opera Association

November 17—
University Philharmonic Orchestra, Carl Lampert, Conductor

December 1—
Two-Piano Recital by Adele Gensemer and John Shelby Richardson

December 8—
Edwina Eustis, Contralto, of New York City

December 15—
Christmas Carol Program by the University Choristers, Mildred Lewis, Director

January 12—
University Simfonietta, Alexander Capurso, Conductor, Maude Miles Ogle, Pianist, Soloist

January 19—
Ida Krehm, Pianist, of Chicago

January 26—
University Concert Band, Charles Magurean, Director

February 2—
Mid-Year Baccalaureate Service, University Choristers

Second Semester

February 16—
Anatol Kaminsky, Violinist, of New York City

February 23—
University Women's Glee Club, Mildred Lewis, Director

March 2—
University Philharmonic Orchestra, Carl Lampert, Conductor

March 9—
University Men's Glee Club, Donald Allton, Director

March 16—
University Concert Band, Charles Magurean, Director

March 23—
University Simfonietta, Alexander Capurso, Conductor. Mary Kapp Allton, Violinist, Soloist

March 30—
Sacred Concert by the Transylvania College A Capella Choir, Jack Bryden, Director

April 5—
Sacred Oratorio—**"The Message from the Cross"**—MacFarlane. The Combined University Glee Clubs and Soloists. Donald Allton, Director; Mildred Lewis, Associate Director

Other Cultural Opportunities. The University provides many other cultural opportunities in addition to the regular convocations and musicales. Some of the colleges hold assemblies either weekly or bi-weekly at which 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, and of drawings. The Music Department sponsors a philharmonic orchestra, a University band, a men's glee club and a women's glee club, all of which give concerts and furnish music for convocations. The Y.M.C.A. sponsors a series of informal discussions in the men's dormitories and in the various fraternities. Pan Politikon, a student organization to promote knowledge of countries other than our own, studies through 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.

Each year the Guignol Theatre presents a series of plays in which students, faculty, and others interested in dramatics may participate. Regular radio programs are broadcast daily except Saturday and Sunday and special broadcasts are given frequently. These radio programs are participated in by students and faculty members. They originate in the University Studios in Lexington and are broadcast through the facilities of WHAS, Louisville, and WLAP, Lexington. Excellent exhibits of books, pictures, and museum materials of a variety of kinds are presented at frequent intervals by the University Library.

Religious Life

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 full-time secretary. Frequently great spiritual leaders are brought to the University to speak to students. Through these resident secretaries and visiting ministers opportunity is given the students to consult with sympathetic and able persons

Since the University and its staff are interested in the best all-round development of the student, every encouragement is given him 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 in 1925, 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. The limit has now been raised to seventy-five, and at present there is a long waiting list of students who wish to become members.

Student Activities

Many opportunities are given to the student to take part in various activities outside of his college studies. He may engage in newspaper work in connection with the student paper. If he is interested in dramatics he has the opportunity of taking part in plays presented in a real theater and under competent direction. Through cooperation with the Student Government Association, the student in maintaining the integrity and honor of the campus and of the student body, will be training himself 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 or glee club, and go to social affairs sponsored by the University and by the various organizations. There is opportunity at the University for the student 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.

Student Publications. The students of the University of Kentucky, through the Department of Journalism, publish a semi-weekly newspaper, the **Kentucky Kernel.** This paper is ably edited and ranks high among college publications. The students also issue a yearbook known as **The Kentuckian.** The annual contains a list of organizations, pictures of the junior and senior classes, and the usual features found in college year books. Both of these publications have had a long history.

Student Organizations. The University approves, and through its faculty, sponsors a number of professional, honorary, and departmental organizations. A list of these follows:

Agronomy Club
Alma Magna Mater
Alpha Chi Sigma (Chemistry)
Alpha Lambda Delta (Freshman Honorary—Women)
Alpha Zeta (Agriculture)
American Institute of Electrical Engineers—Student Branch
American Society of Civil Engineers—Student Branch
American Society of Mechanical Engineers—Student Branch
American Institute of Mining and Metallurgical Engineers—Student Branch (Norwood Mining Society)
Ateneo Castellano
Beta Gamma Sigma (Honorary Commerce)
Block and Bridle Club
Business Education Club
Chi Delta Phi (Literary—Women)
College Chamber of Commerce
Cosmopolitan Club
Cub Club (Journalism—Women)
Cwens (Sophomore Women)
Dairy Club
Delta Sigma Chi (Journalism—Men)
Dutch Lunch Club
Future Teachers of America
German Club
Home Economics Club

Hort Club
Inter-Fraternity Council
International Relations Club
Kappa Delta Pi (Honorary Education)
Keys (Sophomore—Men)
La Cercle Francaise
Lamp and Cross (Senior—Men)
Lances (Junior—Men)
Men's Glee Club
Mortar Board (Honorary Senior—Women)
Omega Beta Pi (Pre-Medical)
Omicron Delta Kappa (Senior—Men)
Order of the Coif (Honorary Law)
Pan-Politikon
Patterson Literary Society
Pershing Rifles (Military)
Phi Alpha Delta (Law)
Phi Alpha Theta (History)
Phi Beta (Music—Women)
Phi Beta Kappa
Phi Delta Kappa (Professional Education—Men)
Phi Delta Phi (Law)
Phi Epsilon Phi (Botany)
Philosophy Club
Phi Mu Alpha (Music—Men)
Phi Upsilon Omicron (Home Economics)
Pi Mu Epsilon (Mathematics)
Pitkin Club (Religious)
Poultry Club
Pryor Pre-Medical Society
Scabbard and Blade (Military)
Sigma Gamma Epsilon (Geology)
Sigma Phi Sigma (Honorary Physics)
Sigma Xi
Student Government Association
SuKy (Pep Organization)
Tau Beta Pi (Honorary Engineering)
Tau Kappa Alpha
Theta Sigma Phi (Journalism—Women)
University Four-H Club
White Mathematics Club
Women's Athletic Association
Women's Glee Club
Women's Pan-Hellenic Association
Young Men's Christian Association
Young Women's Christian Association

The Alumni Association

The Alumni Association was established to render service both to the University and to its former students. It is the purpose of this Association to aid in the growth and development of the University, to promote the best interests of alumni, and to enable them to keep in touch with the institution and with each other. As the basis for its activities it maintains records of alumni, showing where they are located and what they are doing. Its program includes the sending of information to alumni about University affairs, the sponsoring of class reunions in the spring, and homecoming in the fall. It seeks to establish alumni groups both in Kentucky and in larger cities throughout the country in order that alumni may come in contact with each other.

The Alumni Office is located in the Student Union Building, and alumni, students, and friends of the University are welcome at all times. The annual business session of the Association is held during

commencement and the Executive Committee meets on the second Monday of each month except during June, July, and August. By legislative act alumni representation has been secured on the Board of Trustees so that they may have a direct influence in the administrative affairs of the University.

Alumni Representatives on Board of Trustees

James Park, Lexington, Kentucky
Louis Hillenmeyer, Lexington, Kentucky
Marshall Barnes, Beaver Dam, Kentucky

Officers of the Association 1940-41

T. H. Cutler, '03, President
Miss Lulie Logan, '13, Vice President
G. Lee McClain, '19, Secretary
Mrs. Ethel Rix, '34, Assistant Secretary
James S. Shropshire, '29, Treasurer

Executive Committee 1940-41

L. K. Frankel, '00
Dr. E. C. Elliott, '02
E. C. Wurtele, '03
Dr. George H. Wilson, '04
G. Davis Buckner, '08
H. D. Palmore, '14
Wayland Rhoads, '15
Mrs. T. R. Underwood, '19
William W. Blanton, '24
B. L. Pribble, '24
Willy King, '27
Robert K. Salyers, Ex '28
Bernie Shively, '36

U. K. Alumni Clubs and Presidents

Ashland, Ky.
Arthur T. Bryson, '13
Atlanta, Ga.
J. A. Weingartner, '26
Baton Rouge, La.
T. Ellis Peak, '18
Birmingham, Ala.
Arthur B. Haswell, '11
Bourbon County, Ky.
William Blanton, '24
Buffalo, N. Y.
John W. Gudgel, '24
Bowling Green, Ky.
Charles Taylor, '21
Chicago, Ill.
C. W. Gordon, '20
Cleveland, Ohio
W. Crawford Bewlay, '09
Clark County, Ky.
John Stevenson, Jr., '33
Covington, Ky.
E. L. Becker, '11
Harlan, Ky.
J. Ray Rice, Ex '24

Kansas
Charles G. Blakely, '79
Lexington, Ky.
Marguerite McLaughlin, '03
Louisville, Ky.
Edd R. Gregg, Ex '22
New York
Howard M. West, '05
Nicholasville, Ky.
Roland Roberts, '25
Owensboro, Ky.
Beckham Robertson, Ex '26
Paducah, Ky.
Adrian Terrell, '26
Philadelphia, Pa.
H. Berkley Hedges, '14
Pineville, Ky.
R. H. Barker, Ex '13
Washington, D. C.
Dudley Smith, '31

THE FACILITIES OF THE UNIVERSITY

The facilities of the University of Kentucky include the 106-acre campus and the Experiment Station Farm of 600 acres at Lexington; a forest reserve and sub-experiment station at Quicksand of 15,000 acres, and the sub-experiment station of 600 acres at Princeton. The buildings on the Lexington campus now number more than forty-five. The location of each building is shown on the map in the front of this publication. Following is a list of the buildings, with brief enumerations of the services housed.

Administration Building. In this building are located the offices of the President, the Dean of the College of Arts and Sciences, the Dean of Men, the Dean of Women, the Business Agent, the Registrar, the Publicity Bureau, the Assistant Dean of the College of Arts and Sciences, and the Stenographic Bureau. The building also houses the Geological Museum and the departments of Ancient Languages, German, and Political Science.

Agriculture Building. The offices of the Assistant Dean of the College of Agriculture are located in this building. The remainder of the building furnishes classroom and laboratory space for horticulture and agronomy.

Agricultural Engineering Building. Designed primarily to house the shops and laboratories for farm engineering, this building also provides classroom and laboratory space for the Department of Agricultural Entomology.

Agricultural Experiment Station. In the Agricultural Experiment Station are located the offices of the Dean of the College of Agriculture, the Director of the Experiment Station and the Director of Agricultural Extension. The building also houses the offices, laboratories, and research facilities for agronomy, chemistry, entomology and botany, farm economics, markets and rural finances, feed control, fertilizer control, agricultural extension, and the agricultural conservation administration. The public service laboratories are also located in the Experiment Station.

Alumni Gymnasium. In this building are located the offices of the Department of Athletics, the ticket office for athletic contests, and the men's gymnasium. The gymnasium is used for athletic practice, for basketball games, and for classes in physical education.

Animal Pathology Building. This building houses the offices and laboratories of the Department of Animal Pathology.

Art Center. In this building are located the Department of Music and the Guignol Theatre.

Barker Hall. This building houses the Buell Armory, the offices, classrooms, and storerooms of the Military Department, the rifle range, the women's gymnasium, and the Department of Physical Education for Women.

Biological Science Building. This building houses the Departments of Art, Anatomy and Physiology, Bacteriology, and Zoology. The office of the Dean of the Graduate School is also located here.

Boyd Hall. This is a residence hall for women. Dining facilities for women are also housed in this building. An addition to this building, completed in 1939, forms the third unit of the residence halls for women.

Bradley Hall. This is a residence hall for men.

Breckinridge Hall. Breckinridge is also a residence hall for men.

Central Heating Plant. This plant contains three steam boilers which supply heat to all buildings on the main campus, to the Experiment Station, the Tobacco Research Laboratory, the Small Animal House, the Dairy Products Building, the Livestock Judging Pavilion, the Agricultural Engineering Building, the Meat Laboratory, the Animal Pathology Building, and the Insectary and Conservatory.

Dairy Products Building. The departments of Animal Husbandry, Dairying, Creamery License, and Poultry are located in this building. It also houses the Herdbook Room and the A.A.A. Aerial Survey.

Education Building. In addition to the University Elementary and High Schools, this building houses the office of the Dean of the College of Education, the office of the Director of the Summer Session, the Bureau of School Service, the Teachers Placement Bureau, and classrooms for college courses in education.

Engineering Quadrangle. This quadrangle, made up of several rather distinct units, houses the Engineering Library and the departments of mechanical, electrical, civil, and mining and metallurgical engineering.

Faculty Club. Formerly the Patterson Home, this house is now occupied by the University Faculty Club.

Frazee Hall. Frazee Hall houses the departments of University Extension, Philosophy, Sociology, and History.

Health and Hygiene Building. Formerly the law building, this structure now houses the University Dispensary and the Department of Hygiene.

Home Economics Building. The offices, classrooms, and laboratories of the Department of Home Economics are located in this building.

Insectary and Conservatory. This building is a greenhouse and laboratory used by the Department of Entomology and Botany of the Experiment Station.

Kastle Hall. This building houses the offices, classrooms, and laboratories of the Department of Chemistry.

Kinkead Hall. Kinkead Hall is the third unit of the residence halls for men.

Lafferty Hall. Lafferty Hall houses the offices, classrooms, and library of the College of Law.

Library. The University Library, including departmental collections, contains approximately 280,188 volumes. The building makes available 700 seats in the various reading rooms, seminar rooms, and the stacks. It also houses the Department of Library Science and the Bureau of Source Materials in Higher Education.

McVey Hall. In this building are located the offices and classrooms for the departments of English, Mathematics, Journalism, and Social Work, the Campus Bookstore, the University Post Office, the Broadcasting Studios, and the offices and print shop of **The Kentuckian** and the **Kentucky Kernel.**

Maxwell Place. Maxwell Place is the home of the President of the University.

Memorial Hall. This building is the University auditorium. It seats about 1,100 persons and is equipped with a pipe organ.

Miller Hall. The departments of Geology and Romance Languages have office, classroom, and laboratory space in this building. It also houses the Geology Library.

Mining Laboratory. This building furnishes a laboratory for the Department of Mining and Metallurgical Engineering.

Museum. The principal use of this building is for the Museum of Archaeology and Anthropology.

Neville Hall. All office, classroom, and laboratory space in Neville Hall is used by the Department of Psychology.

Norwood Hall. In this building are located the Department of Botany and the State Department of Mines and Minerals.

Observatory. This is the observatory of the Department of Mathematics and Astronomy.

Patterson Hall. This building is a residence hall for women.

Pence Hall. The library, offices, classrooms, and laboratories of the Department of Physics are housed in this building.

Service Building. The Service Building houses the Department of Physical Education for Men and the offices, shops, and store rooms of the Department of Buildings and Grounds.

Small Animal Laboratory. This building is used as an experimental laboratory in agriculture.

Smith Hall. Smith Hall is used as a residence for women students.

Stock Judging Building. In addition to its use as a stock judging pavilion, this building furnishes classroom space for work in animal husbandry, poultry, and entomology.

Student Union Building. This building is the center for student activities. In addition to the lounges, ballroom, restaurants, recreation rooms, and assembly rooms, the building houses offices for student organizations, the Alumni Association, the Y.M.C.A. and the Y.W.C.A.

Tobacco Research Laboratory. In the laboratories and greenhouse contained in this building the College of Agriculture is carrying forward research in tobacco culture and curing.

White Hall. White Hall provides office, classroom, and laboratory space for the College of Commerce.

Wenner-Gren Laboratory. Built in 1940, this laboratory is designed for aeroplane motor testing. The building and equipment are the gift of Axel Wenner-Gren, Swedish Industrialist. The laboratory is operated by the College of Engineering. (Not shown on map.)

Additional buildings include the cooperative houses for women students, the Horticultural Greenhouse, the Meat Laboratory, residences, barns, and storage buildings.

PART II

EDUCATIONAL OPPORTUNITIES AT THE UNIVERSITY OF KENTUCKY

C
E
C
co
th
op
fo
th

DEGREES AND CURRICULA

For instructional purposes the University is organized into a College of Arts and Sciences, a College of Agriculture, a College of Engineering, a College of Law, a College of Education, a College of Commerce, and a Graduate School. Instruction is given in each college or school through two semesters of eighteen weeks each, and through two summer terms of five weeks each. In general the opportunities afforded by the above divisions are indicated by the following degrees which are conferred upon students who complete the prescribed programs of study.

College of Arts and Sciences

Bachelor of Arts (A. B.)
Bachelor of Arts in Journalism (A. B. in Journ.)
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 Science in Music (B. S. in Mus.)

College of Agriculture

Bachelor of Science in Agriculture (B. S. in Agri.)
Bachelor of Science in Home Economics (B. S. in H. Ec.)

College of Engineering

Bachelor of Science in Civil Engineering (B. S. in C. E.)
Bachelor of Science in Electrical Engineering (B. S. in E. E.)
Bachelor of Science in Mechanical Engineering (B. S. in M. E.)
Bachelor of Science in Metallurgical Engineering (B. S. in Met. E.)
Bachelor of Science in Mining Engineering (B. S. in Min. E.)

College of Law

Bachelor of Laws (LL. B.)

College of Education

Bachelor of Arts in Education (A. B. in Ed.)
Bachelor of Science in Education (B. S. in Ed.)

College of Commerce

Bachelor of Science in Commerce (B. S. in Com.)

Graduate School

Master of Arts (M. A.)
Master of Arts in Education (M. A. in Ed.)
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 Education (M. S. in Ed.)
Master of Science in Electrical Engineering (M. S. in E. E.)
Master of Science in Home Economics (M. S. in H. Ec.)
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 Min. E.)
Master of Science in Public Health (M. S. in P. H.)
Civil Engineer (C. E.)
Electrical Engineer (E. E.)
Mechanical Engineer (M. E.)
Metallurgical Engineer (Met. E.)
Mining Engineer (E. M.)
Doctor of Philosophy (Ph. D.)

The above outline of colleges and degrees gives only a general idea of the educational opportunities available at the University. Within the various colleges there are many possibilities for specialization and the pursuit of particular interests. These may be outlined as follows:

College of Arts and Sciences. Within this college it is possible to major in any one of twenty-six departments as follows: Anatomy and Physiology, Ancient Languages and Literatures, Anthropology and Archaeology, Art, Bacteriology, Botany, Chemistry, Economics, English Language and Literature, Geology, German Language and Literature, History, Hygiene and Public Health, Journalism, Library Science, Mathematics and Astronomy, Music, Philosophy, Physical Education, Physics, Political Science, Psychology, Romance Languages and Literatures, Social Work, Sociology, and Zoology.

College of Agriculture. The student enrolled in this college may take a general course in agriculture or he may major in any one of the following fields: Agricultural entomology, animal husbandry, crops, dairying, extension, farm economics, land economics, farm engineering, high school teaching, general horticulture, ornamental horticulture, markets and rural finance, plant pathology, poultry, rural sociology, soils, and soil conservation.

Home Economics work is also given in this college. In this field the student may take the general course, or she may major in dietetics and institution management, home economics education, textiles and clothing, home demonstration, and commercial demonstration.

College of Engineering. In the College of Engineering the student may pursue any one of the following curricula: A general course in civil engineering, a civil engineering course with emphasis on sanitary engineering, a civil engineering course with emphasis on architectural engineering, a course in electrical engineering, a course in mechanical engineering, a course in metallurgical engineering, and a course in mining engineering.

College of Law. In the College of Law the student may complete a five-year program leading to the degree of Bachelor of Laws or he may complete a six-year program leading either to the degrees of Bachelor of Science in Commerce and Bachelor of Laws, or to the degrees of Bachelor of Arts and Bachelor of Laws.

College of Education. In the College of Education the student may prepare for elementary teaching, or for high school teaching in one or two of a variety of fields. A curriculum is also provided for teacher-librarians.

College of Commerce. The programs of study in the College of Commerce include a general-business curriculum, an industrial-administration curriculum, a combined commerce-law course, and a curriculum in secretarial training.

Graduate School. Graduate courses are available in practically all colleges and departments. The candidate for a master's degree may major in any department in which sufficient courses are available. The degree of Doctor of Philosophy is offered with major work in agricultural economics and rural sociology, chemistry, education, economics, English, history, mathematics, physics, political science, and psychology.

DEGREES AND CURRICULA IN THE COLLEGE OF ARTS AND SCIENCES

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

INTRODUCTORY STATEMENT

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 interests 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.

Organization. The College of Arts and Sciences embraces twenty-seven departments: Anatomy and Physiology, Ancient Languages and Literatures, Anthropology and Archaeology, Art, Athletics, 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 Literatures, Social Work, Sociology, Zoology. These twenty-seven 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 those outlined on preceding pages for the University.

Advisers. Each student upon registering is assigned to a faculty adviser who helps him arrange his course of study and is available for consultation at any time.

Freshman Tests; Tutorial Classes. Entering freshmen are given a series of psychological and placement tests. Assignments to class sections depend in many departments upon the results of these tests. Also those ranking in the ninth and tenth deciles have special schedules arranged for them and are placed in special tutorial classes.

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 degree of A. B. or B. S.

2. Professional courses leading to special degrees in industrial chemistry, in journalism, in music, and in medical technology.

3. Professonal 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. or 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, Art, Botany, Economics, Geology, German, Journalism, Mathematics and Astronomy, Music, Philosophy, Physical Education, Physics, Political Science, Romance Languages, Social Work, Sociology, and 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.

(French, German, Greek, Italian, Latin or Spanish.)

Social Studies, 6 to 12 credits, in one department.

12 credits, including 6 credits in history, if no entrance unit in history is presented.

(Economics, History, Political Science, or Sociology.)

Mathematics, Philosophy, Psychology, 6 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), Social Work, Sociology.

3. **Physical Science**
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 on approval of the adviser and the dean.

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, Denistry 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, Art, Botany, Economics, Geology, German, Journalism, Mathematics and Astronomy, Music, Philosophy, Physical Education, Physics, Political Science, Romance Languages, Social Work, Sociology and Zoology will be required to schedule tutorial or seminar 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. Students majoring in those departments that require the final comprehensive examination are automatically candidates for department honors.

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

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, if not open to freshmen, be counted on major and field requirements. However, election of law courses by Arts and Sciences students is limited by the following 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, 17 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 one-half of the major work must be gained in residence.

Credits by Extension

A maximum of 32 credits, taken by extension, may be counted toward the baccalaureate degree. No more than 12 credits of extension work can be taken in one calendar year and not more than 6 of

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

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 curriculum leading to the degree of A. B. in Journalism is a prescribed curriculum having as its aim a liberal education and the training of men and women for successful careers in the journalistic profession.

Outline of Curriculum Leading to Degree A. B. in Journalism

General Sequence

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Journalism 2a	1	Journalism 2b	1
English 1a	3	English 1b	3
Modern Foreign Language	3	Modern Foreign Language	3
Physical or Biological Science	3	Physical or Biological Science	3
Psychology 2a	3	Psychology 2b	3
History 5a	3	History 5b	3
Physical Education	.7	Physical Education	.7
Military Science 1a	1.3	Military Science 1b	1.3
Matriculation Lectures	.3		
	18.3		18.0

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Journalism 20a	3	Journalism 20b	3
English 3a	3	English 3b	3
Modern Foreign Language	3	Modern Foreign Language	3
Biological or Physical Science	3	Biological or Physical Science	3
Economics 1	3	Journalism 21 or Social Science	3
Physical Education	.7	Physical Education	.7
Military Science 6a	1.5	Military Science 6b	1.5
Hygiene 1	1		
	18.2		17.2

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Journalism 104a	3	Journalism 104b	3
Journalism 105	2	Journalism 123	3
*Electives	10–12	*Electives	9–11
	15–17		15–17

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Journalism 90a	1	Journalism 90b	1
Journalism 107	2	Journalism 106	3
Journalism 108	3	Journalism 127	2
*Electives	9–11	*Electives	9–11
	15–17		15–17

Minimum credits required for degree—130.

* Electives not included in the recommended list below must be approved by the Department of Journalism and the dean.

Outline of Curriculum Leading to Degree A. B. in Journalism

Community Sequence

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Journalism 2a	1	Journalism 2b	1
English 1a	3	English 1b	3
Modern Foreign Language	3	Modern Foreign Language	3
Physical or Biological Science	3	Physical or Biological Science	3
Psychology 2a	3	Psychology 2b	3
History 5a	3	History 5b	3
Physical Education	.7	Physical Education	.7
Military Science 1a	1.3	Military Science 1b	1.3
Matriculation Lectures	.3		
	18.3		18.0

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Journalism 20a	3	Journalism 20b	3
English 3a or Sociology 1	3	English 3b or Sociology 2	3
Modern Foreign Language	3	Modern Foreign Language	3
Physical or Biological Science	3	Physical or Biological Science	3
Economics 1	3	Journalism 21 or Social Science	3
Physical Education	.7	Physical Education	.7
Military Science 6a	1.5	Military Science 6b	1.5
Hygiene 1	1		
	18.2		17.2

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Journalism 102	3	Journalism 103	3
Journalism 104a	3	Journalism 104b	3
Journalism 105	2	Journalism 123	3
Sociology 112	3	Sociology 101	3
Political Science 52	3	*Electives	3–5
*Electives	1–3		
	15–17		15–17

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Journalism 90a	1	Journalism 90b	1
Journalism 107	2	Journalism 106	3
Journalism 108	3	Journalism 127	2
Political Science 80	3	Psychology 5	3
Sociology	3	Political Science	3
*Electives	3–5	*Electives	3–5
	15–17		15–17

Minimum credits required for degree—130.

Outline of Curriculum Leading to Degree A. B. in Journalism

Journalism-Advertising Sequence

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Journalism 2a	1	Journalism 2b	1
English 1a	3	English 1b	3
Modern Foreign Language	3	Modern Foreign Language	3
Physical or Biological Science	3	Physical or Biological Science	3
Psychology 2a	3	Psychology 2b	3
History 5a or Political Science	3	History 5b or Political Science	3
Physical Education	.7	Physical Education	.7
Military Science 1a	1.3	Military Science 1b	1.3
Matriculation Lectures	.3		
	18.3		18.0

* Electives not included in the recommended list below must be approved by the Department of Journalism and the dean.

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Journalism 20a	3	Journalism 20b	3
English 3a	3	English 3b	3
Modern Foreign Language	3	Modern Foreign Language	3
Physical or Biological Science	3	Physical or Biological Science	3
Art 30a or 61a	2–3	Art 61a or 30a	3–2
Physical Education	.7	Physical Education	.7
Military Science 6a	1.5	Military Science 6b	1.5
Hygiene 1	1		
	17.2–18.2		16.2–17.2

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Journalism 104a	3	Journalism 104b	3
Journalism 105	2	Journalism 103	3
Journalism 123	3	Economics 1	3
Art 29	2	Psychology 5	3
*Electives	5–7	*Electives	3–5
	15–17		15–17

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Journalism 90a	1	Journalism 90b	1
Journalism 108	3	Journalism 106	3
Economics 140	3	Journalism 115	3
*Electives	8–10	*Electives	8–10
	15–17		15–17

Minimum credits required for degree—130.

RECOMMENDED ELECTIVES

	Credits
Art 29 (Advertising Art)	2
Art 68a, b (Graphic Design)	6
Economics 102 (Labor Problems)	3
Economics 104 (Public Finance)	3
Economics 105 (Money and Banking)	3
Economics 140 (Advertising Campaigns)	3
English 108a, b (Principles of Literary Criticism)	6
English 123a (American Literature before 1860)	3
English 123b (American Literature after 1860)	3
English 130a, b (Comparative Literature)	6
History 40 (History of Kentucky)	2
History 100a (The Diplomacy and Foreign Policy of the United States to 1860)	3
History 100b (The Diplomacy and Foreign Policy of the United States since 1860)	3
History 120 (The Twentieth Century)	3
History 147 (Recent History of the United States)	3
Advanced courses in Journalism	
Philosophy 21 (Introduction to Philosophy)	3
Philosophy 31 (Logic)	3
Political Science 52 (Municipal Government)	3
Political Science 80 (State Government)	3
Political Science 165 (World Politics)	3
Political Science 171a (Early Political Theory)	3
Political Science 171b (Modern Political Theory)	3
Political Science 177a (Principles of Public Administration)	3
Political Science 177b (Principles of Public Administration)	3
Psychology 5 (Psychology of Advertising and Selling)	3
Psychology 104 (Social Psychology)	3
Psychology 12 (Personnel Administration)	3
Sociology 101 (Social Dependence)	3
Sociology 103 (Criminology)	3
Sociology 109 (The Family)	3
Sociology 112 (Community Organization)	3
Zoology 108a, b (Principles of Zoology)	4

* Electives not included in the recommended list below must be approved by the Department of Journalism and the dean.

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 curriculum. 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.

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 Curriculum Leading to the Degree B.S. in Industrial Chemistry

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Mat. Lec. Required of all	.3	Eng. 1b Eng. Composition	3
Eng. 1a Eng. Composition	3	Math. 19 Plane Analytic Geom.	3
Math. 17 College Algebra	3	Ger. 1b Elem. German	3
Math. 18 Plane Trig.	2	Chem. 1b Gen. Inorg. Chem.	5
Ger. 1a Elem. German	3	Eng. Draw. 2b Mech. Draw.	1.3
Eng. Draw. 2a Mech. Draw.	1.3	Mil. Sci. 1b First Year Basic Course, Infantry	1.3
Chem. 1a Gen. Inorg. Chem.	5	Phys. Ed. Freshman Gym.	.7
Mil. Sci. 1a First Year Basic Course, Infantry	1.3	Hyg. 1 Personal and Community Health	1
Phys. Ed. Freshman Gym.	.7		
	19.6		18.3

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Phys. 3a Gen. Col. Phys.	6	Phys. 3b Gen. Col. Phys.	6
Math. 20a Diff. Calculus	4	Ger. 2b Intermed. German	3
Ger. 2a Intermed. German	3	Chem. 8 Quan. Analysis	5
Chem. 4 Qual. Analysis	4	Math. 20b Integral Calculus	4
Mil. Sci. 6a Second Year Basic Course, Infantry	1.5	Mil. Sci. 6b Second Year Basic Course, Infantry	1.5
Phys. Ed. Sophomore Gym.	.7	Phys. Ed. Sophomore Gym.	.7
	19.2		20.2

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Chem. 127a Organic Chem., Aliphatic Series	5	Chem. 127b Organic Chem., Cyclic Series	5
Chem. 109 Quan. Analysis	5	Econ. 15 Applied Econ.	3
Chem. 131a Physical Chem.	4	Chem. 131b Phys. Chem., Continued	5
Com. 1 Principles of Ec.	3	French 1b Elem. French	3
French 1a Elem. French	3	Phys. 117 Theory of Heat	3
Geol. 109a Mineralogy	2		
	22.		19.

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Elec. Engr. 105 Direct Currents and Machinery	4	Elec. Engr. 106 Alternating Currents	4
or		or	
Physics Advanced Physics	3	Physics Advanced Physics	3
Chem. 119a Indus. Chem.	2	Chem. 150 Adv. Inorg. Chem.	4
Chem. 122a Journal Club	1	Chem. 119b Indus. Chem.	2
Eng. Elective	3 or 2	Eng. Elective	3 or 2
Chem. 118 Water Analysis	2	Chem. 122b Journal Club	1
Chem. 103 Qual. Org. Anal.	5	Chem. Elective	5
Physics 123 Principles of Thermodynamics	3	Chem. 140 Industrial Stoichiometry	3
	18, 19, 20		20, 21, 22

Minimum credits for a degree 156.3.

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

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.

Outline of Curriculum Leading to the Degree of B. S. in Music

The object of this curriculum in music is primarily to meet a Kentucky problem; that is, to develop music supervisors that can organize, teach and direct orchestras, bands and choruses. Besides this work the student of this curriculum 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 curriculum 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

Name of Course	1st Sem.	2nd Sem.	Title of Course	No. of Crs.
English	1a	1b	English Composition	6
Music	33a	33b	Elementary Harmony and Sight Reading	8
Music	----	----	Applied Music	6
Music	39a-40a	39b-40b	Glee Club or Orchestra	—
M. F. L.	----	----	Modern Foreign Language	6
Mat. Lect.	----	----	Matriculation Lecture	.3
Hygiene	----	1	Personal and Com. Health	1
M. S.	1a	1b	Military Science (Men)	2.6
Psychology	1	----	Elementary Psychology	3
Phy. Ed.	----	----	Physical Education	1.4

SOPHOMORE YEAR

English	3a	3b	Hist. of Eng. Literature	6
Music	34a	34b	Adv. Harmony, Dict. and Ear Training	8
Music	----	----	Applied Music	6
M. F. L. or Soc. Sc.	----	----	Mod. For. Lang. or Soc. Sc.	6
Music	39c-40c	39d-40d	Glee Club or Orchestra	—
Mil. Sc.	6a	6b	Military Science (Men)	3
Phy. Ed.	----	----	Physical Education	1.4
Psy.	7	----	Psychology of the Child	3
Elective	----	----	(Women only)	3

JUNIOR YEAR

Music	4a	4b	Public School Music	4
Music	13a	13b	Form and Analysis	4
Music	----	----	Applied Music	6
Music	19a	19b	History and Appreciation	6
Music	39e-40e	39f-40f	Glee Club or Orchestra	—
Music	9a	9b	Strings and Brasses	4
Education	----	C44	Fundamentals of Elementary Education	3
Music	----	26	H. S. Method	2
Education	16	----	Educational Psychology	3

SENIOR YEAR

Music	12a	12b	Counterpoint and Composition	4
Music	9c	----	Woodwind	2
Music	114a	----	Orchestration and Conducting	2
Music	----	----	Applied Music	6
Music	39g-40g	39h-40h	Glee Club or Orchestra	—
Education	105	101	School Organization and Fundamentals of Secondary Educa.	6
Education	177a	177b	Directed Teaching in Music	6
Music	----	42	Seminar	1
Elective (Women)	----	----	A. & S. Women	4
Elective (Men)				1
Minimum credits required for degree				127.7

If Military Science or Physical Education is not taken, equivalent credits must be gained in other subjects. 24 hours of applied music necessary for degree of B. S. in Music.

THE DEGREE OF B. S. IN MEDICAL TECHNOLOGY

The degree of B.S. in Medical Technology is offered to those who complete the required curriculum outlined below. 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 fits the specially adapted student for either commercial or research laboratory work, meets all the requirements of the United States Civil Service Commission for the rank of Junior Bacteriologist, and prepares for entrance to Class A medical schools. The course is approved by the Board of Registry of the American Society of Clinical Pathologists and by the Council on Medical Education and Hospitals of the American Medical Association.

Outline of Curriculum Leading to the Degree B. S. in Medical Technology

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Matric. Lec. Required of all Freshmen	.3	Hyg. 1 Personal and Community Health	1
Eng. 1a Eng. Composition	3	Eng. 1b Eng. Composition	3
Chem. 1a Gen. Inorganic Chem.	5	Chem. 1b Gen. Inorganic Chem.	5
Bact. 2a Elem. Microbiology	4	Bact. 2b Elem. Microbiology	4
Zool. 1a General Zoology	4	Zool. 1b General Zoology	4
Mil. Sci. 1a First Year Basic Course	1.3	Mil. Sci. 1b First Year Basic Course	1.3
Phys. Ed. Freshman Gym.	.7	Phys. Ed. Freshman Gym.	.7
	18.3		19.0

SOPHOMORE YEAR*

First Semester	Credits	Second Semester	Credits
Chem. 4 Qualitative Analysis	4	Zool. 7b Comparative Anat.	4
Phys. 1a General Physics	5	Phys. 1b General Physics	5
Bact. 56 Bacteriology of Foods	4	Bact. 57 Bact. of Water and Sewage	4
Anat. & Phys. 1a Gen. Phys.	3	Anat. & Phys. 1b Gen. Phys.	3
Mil. Sci. 6a Second Year Basic Course	1.5	Mil. Sci. 6b Second Year Basic Course	1.5
Phys. Ed. Sophomore Gym.	.7	Phys. Ed. Sophomore Gym.	.7
	18.2		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	Credits	Second Semester	Credits
Chem. 8 Quantitative Anal.	5	Zool. 101b Histology	3
Zool. 101a Histology	3	Bact. 125 Immunology and Serology	5
Bact. 103 Pathogenic Bact.	4	Zoology 106 Embryology	4
For. Lang. Elective	3	For. Lang. Elective	3
Bact. 110a Lab. Diagnosis	3	Bact. 110b Lab. Diagnosis	3
	18		18

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Chem. 127a Organic Chem.	5	Chem. 127b Organic Chem.	5
Bact. 111 Gen. Pathology	4	Bact. 150b Seminar	1
Bact. 150a Seminar	1	Physics 120 X-Ray Technique	2
Bact. 120a Hosp. Lab. Prac.	4	Bact. 120b Hosp. Lab. Prac.	6
Math., Phil., Psych. or Soc. Sci. Elective	3	Math., Phil., Psych. or Soc. Sci. Elective	3
	17		17

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

Total credits 143.7.

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 a "Class A" college of dentistry as rated by the Dental Educational Council of America.

5. He must in his law or medicine work secure sufficient semester credits to bring his total in the Arts and the professional work up to 127 credits, and must secure a standing of at least 1, or its equivalent, in the professional work. Professional courses 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 year's 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.

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.

Certification as to fitness for entrance to medical school is made by a standing committee of the faculty: O. T. Koppius, Charles Barkenbus, A. C. Brauer, Morris Scherago, J. S. Chambers, W. D. Funkhouser, and R. S. Allen, Chairman.

RECOMMENDED COURSES PREPARATORY TO THE STUDY OF MEDICINE*

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Mat. Lec. Required of all	.3	Eng. 1b English Composition	3
Eng. 1a English Composition	3	Chem. 1b General Inorganic Chem.	5
Chem. 1a General Inorganic Chem.	5	Zool. 1b General Zoology	4
Zool. 1a General Zoology	4	**Ger. 1b Elem. German	3
Ger. 1a Elementary German	3	or	
or		Rom. Lang. 1b Elem. French	3
Rom. Lang. 2a Elem. French	3	†Math. 18 Plane Trigonometry	2
Mil. Sci. 1a First Year Basic Course, Infantry	1.3	Mil. Sci. 1b First Year Basic Course, Infantry	1.3
Phys. Edu. Gymnasium or Field Athletics	.7	Phys. Edu. Gymnasium or Field Athletics	.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.

** Two years of Foreign Language in college are recommended, or the equivalent in high school, although a few medicial 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	Credits	Second Semester	Credits
†Chem. 20a Organic Chem.	5	†Chem. 20b Organic Chem.	5
or		or	
Chem. 4 Qualitative Analysis	4	Chem. 8 Quantitative Anal.	5
Phys. 1a General Physics	5	Phys. 1b General Physics	5
or		or	
Phys. 2a Gen. College Phys.	5	Phys. 2b Gen. College Phys.	5
Ger. 2a Intermediate German	3	Ger. 2b Intermediate German	3
or		or	
Rom. Lang. 2a French Read.	3	Rom. Lang. 2b French Read.	3
*Elective	3	*Elective	3
Mil. Sci. 6a Second Year Basic Course, Infantry	1.5	Mil. Sci. 6b Second Year Basic Course, Infantry	1.5
Phys. Edu. Gymnasium or Field Athletics	.7	Phys. Edu. Gymnasium or Field Athletics	.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 Education 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 certain specific courses) with a standing of 1 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. See page 17.

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.

SOCIAL WORK

The Department of Social Work offers three types of preparation: orientation courses for students in allied fields whose work brings them into contact with social welfare programs; a pre-professional major for those wishing to qualify for graduate training; and a graduate curriculum consisting of the first basic year of social work for those interested in social work as a career.

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 sanitation, 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** education in library work including practice and observation in well organized libraries. The curriculum offered to senior and graduate students, meets the standards of the Southern Association of Colleges and Secondary Schools and is especially designed to prepare students for librarianships in school libraries. An A. B. or B. S. degree is granted to senior students; a certificate to graduate students completing satisfactorily the thirty credit hours of professional courses in the Department.

THE RESERVE OFFICERS' TRAINING CORPS

The Department of Military Science conducts a four-year 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 qualifying for a commission in the Officers' Reserve Corps of the army.

CIVIL PILOT TRAINING

The University has contracted with the Civil Aeronautics Administration to establish a ground course in Civil Pilot Training. This ground course, in conjunction with a flight course at the Lexington airport, leads to a government license as a civil pilot. Physically fit students between the ages of 19 and 26 years may enrol, subject to the authorized quota.

Courses are held each semester and during the summer session. Academic credits will be granted to those successfully completing the courses.

PUBLIC SERVICE COURSES

Government service is offering an ever widening field of opportunity for the college trained man and woman. The last years have seen a tremendous 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 directed to the suggested courses of study listed under Political Science.

DEGREES AND CURRICULA
IN THE
COLLEGE OF AGRICULTURE AND HOME ECONOMICS

THOMAS POE COOPER, B. S., D. Sc., Dean

ORGANIZATION

The College of Agriculture includes three divisions:

1. The College { Agriculture / Home Economics
2. The Experiment Station
3. The Extension Division

REQUIREMENTS FOR GRADUATION IN AGRICULTURE

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	47.0 credits
Prescribed subjects, agriculture	33.0 credits
Electives required in agriculture	29.0 credits
Freshman assembly	.3 credit
Free electives	30.0 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 24. The free electives may be in agriculture.

Transfer students are required to take a minimum of 36 credits of agriculture in residence. (62 credits are required for the degree.) Those taking the general curriculum and having credit for the equivalent of a required course in agriculture must take a minimum of three credits in the same field, these to be designated by the head of the department. Transfer students majoring in a field of study must have credit for all required courses in agriculture or their equivalent but beyond this their requirements in agriculture shall be determined by the major professor.

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 should carry at least 12 credit hours each semester.

Prior to the senior year all candidates for the degree in agriculture must satisfy the Dean that they have had the equivalent of six months of farm experience. 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.

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
A. I. 31, Market Classes and Breeds of Livestock	3	A. I. 32, Farm Poultry Prod.	3
A. I. 33, Farm Dairying	3	Bot. 1b, Genl. Botany	4
Agr. 11, Farm Crops	3	Eng. 1b, English Composition	3
Bot. 1a, Genl. Botany	4	**Chem. 1a, Genl. Inorganic	5
*Eng. 1a, English Composition	3	M. S. 1b, First Year Basic	1.3
M. S. 1a, First Year Basic	1.3	Phys. Ed. Gym. Practice	.7
Phys. Ed. Gym. Practice	.7		
Freshman Assembly	.3		
	18.3		17.0

* Students whose classification test places them in the lowest section of English 1a will be limited to 15 credits until a passing grade is earned in 1a.

** Chemistry 1a may be taken in the first semester.

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Chem. 1b, Genl. Inorganic	5	Agr. 4, Soils	3
Econ. 1, Principles of Econ.	3	A. I. 20, Animal Nutrition	3
F. E. 10, Mechanics of the Farmstead	3	Bact. 52, Principles of Bacteriology	4
Hort. 1, Genl. Horticulture	3	Fm. Ec. 4, Agricultural Economics	3
M. S. 6a, Sec. Year Basic	1.5	Geol. 3, Elem. Geology	3
Electives	2	M. S. 6b, Sec. Year Basic	1.5
	17.5		17.5

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	Credits	Second Semester	Credits
Fm. Ec. 113, Farm Management	3	*Ed. 16, Educ. Psychology	3
M. & R. F. 108, Marketing	3	or	
*Electives	11	Psy. 1, Elem. Psychology	3
		Zool. 25, Genl. Animal Biol.	3
		Electives	11
	17		17

* Students planning to teach vocational agriculture are required to take Fm. Eng. 12 and 13, and Education 16.

SENIOR YEAR

The work in the senior year is all elective. The normal load is 18 credit hours each semester.

FACULTY COUNSELORS AND ADVISERS

Upon entering the College of Agriculture each student is assigned a faculty counselor. It is the function of this faculty member to serve as a friendly, personal counselor 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 selects 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 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
Crops
Dairying
Extension
Farm Economics
Land Economics
Farm Engineering
High School Teaching
General Horticulture
Ornamental Horticulture
Markets and Rural Finance
Plant Pathology
Poultry
Rural Sociology
Soils
Soil Conservation

ELECTIVES SUGGESTED FOR STUDENTS WHO ARE PREPARING TO BE COUNTY AGRICULTURAL AGENTS

JUNIOR AND SENIOR YEARS

First Semester	Credits	Second Semester	Credits
A. E. 10, Agr. Entomology	3	A. E. 102, Adv. Agr. Entomology	3
Agr. 105a, Forage Crops	3	Agr. Ext. 1, Agricul. Exten.	1
Agr. 113, Methods and Results in Agr. Experimentation	3	Agr. 23, Plant Pathology	4
Agr. 115, Soil Management	3	Agr. 105b, Tobacco and Cereals	3
A. I. 19, Genetics	3	A. I. 13, Livestock Judging	2
A. I. 27, Work Stock Production	3	A. I. 105, Beef Production	3
A. I. 102, Farm Butchering and Curing Meats	4	A. I. 107, Sheep Production	3
A. I. 106, Pork Production	3	A. I. 125, Dairy Cattle Feeding and Management	3
A. I. 134, Adv. Poultry Prod.	3	A. P. 116, Diseases of Domestic Animals	4
Eng. 7a, Public Speaking	3	Fm. Ec. 115, Types and Systems of Farming	3
Fm. Ec. 140, Rural Sociology	3	Fm. Eng. 105, Engineering Principles and Practices in Soil Management	3
Fm. Eng. 12, Farm Structural Engineering	3	Hort. 113, Landscape Gardening	3
Fm. Eng. 104, Rural Electrification	2	M. & R. F. 112, Farm Finance	3
Hort. 103, Pomology	3		
Hort. 110, Vegetable Gardening	3		
Jour. 10a, Survey of Journ.	3		
M. & R. F. 111, Agr. Prices	3		

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 educate white teachers for this work.

Students who complete the work for a bachelor's degree in agriculture and who present fifteen credits in education as prescribed in the state plans for vocational 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	Credits	Second Semester	Credits
*Agr. Ed. 181, Teach. Vocational Agriculture	7	*Agr. Ed. 181, Teach. Vocational Agriculture	7
Agr. 105a, Forage Crops	3	A. E. 102, Adv. Agricul. Entomology	3
Agr. 113, Methods and Results in Agr. Experimentation	3	Agr. 23, Plant Pathology	4
Agr. 115, Soil Management	3	Agr. 105b, Tobacco and Cereals	3
A. I. 19, Genetics	3	A. I. 13, Livestock Judging	2
A. I. 27, Work Stock Production	3	A. I. 105, Beef Production	3
A. I. 102, Farm Butchering and Curing Meats	4	A. I. 107, Sheep Production	3
A. I. 106, Pork Production	3	A. I. 125, Dairy Cattle Feeding and Management	3
A. I. 134, Adv. Poultry Prod.	3	A. P. 116, Diseases of Domestic Animals	4
Fm. Ec. 140, Rural Sociology	3	Hort. 113, Landscape Gardening	3
*Fm. Eng. 12, Farm Structural Engineering	3	*Fm. Eng. 13, General Farm Shop	3
Fm. Eng. 104, Rural Electrification	2	*Agr. Ed. 182, Evening School and Part-Time Courses	2
Hort. 105, Pomology	2		
Hort. 110, Vegetable Gardening	3		
Journ. 10a, Survey of Journ.	3		
M. & R. F. 111, Agricul. Prices	3		

* 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 Agricultural Education 179, the student must present at least fifteen credits in secondary education.

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURE WITH A MAJOR IN ORNAMENTAL HORTICULTURE

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Art 61a, Drawing	3	Art 61b, Drawing	3
Bot. 1a, Genl. Botany	4	Bot. 1b, Genl. Botany	4
Math. 18, Trigonometry or	2	Chem. 1a, Genl. Inorganic	5
Math. 17, Algebra	3	Eng. 1b, English Comp.	3
Eng. 1b, English Comp.	3	M. S. 1b, First Year Basic	1.3
M. S. 1a, First Year Basic	1.3	Phys. Ed., Gym. Practice	.7
Phys. Ed., Gym. Practice	.7		
Freshman Assembly	.3		
Electives	2		
	16.3 or 17.3		17.0

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Art 63a, Inter. Drawing	3	Agr. 4, Soils	3
Chem. 1b, Genl. Inorganic	5	Agr. 23, Plant Pathology	4
Econ. 1, Prin. of Economics	3	A. E. 10, Agr. Entomology	3
Hort. 1, Genl. Horticulture	3	E. D. 17a, Engineering Drawing	2
M. S. 6a, Sec. Year Basic	1.5	Geol. 3, Elem. Geology	3
Electives	2	M. S. 6b, Sec. Year Basic	1.5
	17.5		16.5

JUNIOR AND SENIOR YEARS

First Semester	Credits	Second Semester	Credits
A. E. 103, Econ. Entomology	3	Fm. Eng. 105, Engineering Principles and Practices in Soil Management	3
Agr. 115, Soil Management	3	Hort. 113, Landscape Gardening	3
Hort. 115a, Special Problem	3	Hort. 114, Adv. Landscape Gardening	3
		Hort. 115b, Special Problem	3
		Hort. 117, Floriculture	3
		Hort. 118, Adv. Floriculture	3

Electives in Agriculture	22
Free electives	26

The twenty-two 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 can not 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 70 credits, including 30 credits in agriculture, with a standing of 1, the student may be awarded a certificate. The required work is as follows.

FIRST YEAR

First Semester	Credits	Second Semester	Credits
Freshman Assembly	.3	Eng. 1b, English Composition	3
Eng. 1a, English Composition	3	M. S. 1b, First Year Basic	1.3
Bot. 1a, General Botany	4	Phys. Ed., Gym. Practice	.7
M. S. 1a, First Year Basic	1.3	Electives	12
Phys. Ed., Gym. Practice	.7		
Electives	8		
	17.3		17

SECOND YEAR

First Semester	Credits	Second Semester	Credits
Chem. 1a, General Inorganic	5	M. S. 6b, Sec. Year Basic	1.5
Econ. 1, Principles	3	Electives	16
M. S. 6a, Sec. Year Basic	1.5		
Electives	8		
	17.5		17.5

The following is a list of electives from which the faculty advises the student generally to select his courses, but he may elect any course in the University for which he has the prerequisites. Electives must be selected from courses numbered below 100.

First Semester	Credits	Second Semester	Credits
A. E. 10, Agr. Entomology	3	A. E. 11, Apiculture	3
Agr. 11, Farm Crops	3	Agr. 4, Soils	3
Agr. 14, Market Grain Grading	2	Agr. 23, Plant Pathology	4
A. I. 25, Judging Dairy Products	1	A. I. 4 Livestock Management	1
A. I. 26, Adv. Livestock Mgt.	1	A. I. 13, Livestock Judging	2
A. I. 27, Work Stock Production	3	A. I. 19, Genetics	3
A. I. 31, Market Classes and Breeds of Livestock	3	A. I. 20, Prin. Animal Nutrition	3
A. I. 33, Farm Dairying	3	A. I. 28, Light Horse Husbandry	2
Fm. Eng. 10, Mechanics of Farmstead	3	A. I. 32, Farm Poultry Prod.	3
Fm. Eng. 12, Farm Structural Engineering	3	A. I. 35, Hatchery Mgt.	3
For. 1, Outline of Forestry	3	Bact. 52, Genl. Bacteriology	4
Hort. 1, General Horticulture	3	Chem. 1b, General Inorganic	5
Biological Science	3–4	Fm. Ec. 4, Agricultural Economics	3
Physical Science	3–5	Fm. Eng. 9, Farm Motors	3
Social Science	3	Fm. Eng. 13, Farm Shop	3
		Biological Science	3–4
		Physical Science	3–5
		Social Science	3

Pre-Forestry Work

The College of Agriculture does not grant a degree in forestry, but students planning to become foresters may enter the College and take courses which will satisfy the requirements of the first year in most forestry schools. These courses include general botany, English composition, mathematics, physics, journalism, drawing, surveying, and outline of forestry. Each prospective student should select the forestry school he plans to enter so his schedule may be planned to meet the requirements of that school.

Pre-Veterinary Work

The College of Agriculture does not grant a degree in veterinary medicine, but students planning to become veterinarians may enter the College and take the course required for admission to a college of veterinary medicine. The minimum requirement for entrance is one year of college work, some colleges requiring more. In general the requirements include inorganic chemistry, one year; English composition, one year; introductory zoology, one year; and social science, one year. Recommended courses include foreign language, advanced chemistry, history, political science, botany, mathematics, psychology, English literature, speech, physics, and animal husbandry.

Pre-Theological Major for the Rural Ministry

Many leaders in the work of the rural town and country ministry are today suggesting that some of the men who plan to enter this field of service should consider attending a College of Agriculture in which a strong curriculum in rural social science is available, as an undergraduate preparation for seminary training. A student planning to enter a theological seminary and enrolling in a regular curriculum of the College of Agriculture may select from the general University offering a suitable group of courses in philosophy, English literature and ancient languages. The student planning to elect this major is advised to acquaint himself with the specific requirements of the theological seminary of his choice.

Graduate Work

The College of Agriculture offers graduate courses in all departments leading to the degree of Master of Science in Agriculture. The degree of Doctor of Philosophy may be earned in the combined fields of agricultural economics and rural sociology.

DEPARTMENT OF HOME ECONOMICS

The Department of Home Economics offers courses dealing with foods and nutrition, textiles and clothing, the home, care and training of children, and the management of institutions. These courses are arranged into a curriculum that is sufficiently flexible to provide for the needs of the following groups of students:

1. Those who desire a general education in home economics. These students may obtain a broad, cultural education by electing courses in any College.
2. Those who desire to study home economics as a minor, supplementing a major in the College of Arts and Sciences.
3. Those who desire to become proficient in one division of home economics in preparation for a career other than teaching, such as interior decoration, hospital dietetics, etc.
4. Those who desire to become teachers of home economics in high schools, colleges, and emergency schools and projects.
5. Graduate students who are candidates for the master's degree.

REQUIREMENTS FOR GRADUATION

To receive the degree of Bachelor of Science in Home Economics, a student must complete 134 credits with an average grade of C or a standing of one. These credits are classified as follows:

Prescribed non-home economics	54.8 credits
Prescribed home economics	45.0 credits
Assemblies	1.2 credits
Electives required in home economics	4.0 credits
Free electives	29.0 credits
Total	134.0 credits

CURRICULUM LEADING TO THE DEGREE OF BACHELOR OF SCIENCE IN HOME ECONOMICS

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Art 30a, Introd. to Art	2	Art 30b, Introd. to Art	2
Chem. 1a, Genl. Inorganic	5	Chem. 1b, Genl. Inorganic	5
H. E. 6a, Foods	3	H. E. 6b, Foods	3
H. E. 26, Textiles	2	H. E. 29, Costume Design	3
Phys. 51a, Introd. to Phys.	3	Phys. 51b, Introd. to Phys.	3
Assembly 1	.3	Phys. Ed., Gym. Practice	.7
Phys. Ed., Gym. Practice	.7		
	*16.0		*16.7

* Students whose classification test places them in the lowest section of English 1a will be limited to 15 credits until a passing grade is earned in 1a.

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
A. & P. 3, Physiology	4	Econ. 1, Prin. of Economics	3
Chem. 7, Organic	4	Eng. 1b, English Composition	3
Eng. 1a, English Composition	3	H. E. 3, Food and Nutrition	4
H. E. 46, Clothing	3	H. E. 41, Housing	3
Psy. 1, Elem. Psychology	3	Psy. 7, Child Psychology	3
Assembly 2a	.3	Assembly 2b	.3
Phys. Ed., Gym. Practice	.7	Phys. Ed., Gym. Practice	.7
	18.0		17.0

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Eng. 3a or 3b, Hist. of English Literature	3	H. E. 47, Adv. Clothing	3
Jour. 10a, Survey of Jour.	3	H. E. 115, Child Care and Development	3
or		H. E. 117, Interior Decoration	3
Eng. 6, Essen. of Speech	2	H. E. 142a, Home Mgt., Lec.	2
H. E. 124, Dietetics	4	Electives	6
H. E. 125, Consumer Problems	3		
Assembly 3	.3		
Elective	3 or 4		
	15.3 or 17.3		17

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Fm. Ec. 140, Rural Sociology	3	Electives	16
or			
Soc. 1, Prin. of Sociology	3		
H. E. 33, Health of the Family	3		
*H. E. 142b, Home Mgt., Lab.	3		
Electives	5		
	17		16

* May be taken either semester.

FACULTY COUNSELORS AND ADVISERS

When a student first registers in the Department of Home Economics she is assigned a faculty counselor. It is the function of this faculty member to serve as a friendly, personal counselor to the student. Juniors and seniors may be assigned to major advisers.

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, Textiles and Clothing, Home Demonstration, and Commercial Demonstration.

Teachers of Vocational Home Economics

The Federal Vocational Education Act passed by Congress in 1917 makes provision for the education 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 educate 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, as prescribed in the state plans for vocational education, will be entitled to a state certificate to teach home economics on a vocational basis in the public schools of Kentucky.

Suggested Curriculum 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	Credits	Second Semester	Credits
Educ. 147, Foundations of Secondary Education	3	Bact. 52, Prin. of Bacteriology	4
Eng. 3a or 3b, Hist. of English Literature	3	Educ. 160, Technique of Teaching Home Economics	3
H. E. 115, Child Care and Development	3	Jour. 10a, Survey of Journalism	3
H. E. 124, Dietetics	4	or	
H. E. 125, Consumer Problems	3	Eng. 6, Essen. of Speech	2
Assembly 3	.3	H. E. 47, Adv. Clothing	3
		H. E. 117, Interior Decoration	3
		*H. E. 142a, Home Mgt., Lec.	2
	16.3		17 or 18

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
**Ed. 162, Direct. Teaching in Home Economics	6	Ed. 101, School Organization	3
Fm. Ec. 140, Rural Sociology	3	Ed. 165b, Prob. in Vocational Education	3
or		**Ed. 162, Direct. Teaching in Home Economics	6
Soc. 1, Prin. of Sociology	3	**H. E. 142b, Home Mgt., Lab.	3
H. E. 33, Health of Family	3	Electives	3
*H. E. 142a, Home Mgt., Lec.	2		
Electives	3		
	16 or 17		18

* May be taken either the second semester of the junior year or the first semester of the senior year.

** May be taken either semester. It is recommended that H. E. 142b and Ed. 162 be taken the same semester.

Suggested Curriculum 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

First Semester	Credits	Second Semester	Credits
A. & P. 3, Physiology	4	Econ. 1, Prin. of Economics	3
Chem. 7, Organic Chemistry	4	Eng. 1b, English Composition	3
Eng. 1a, English Composition	3	H. E. 3, Food and Nutrition	4
H. E. 46, Clothing	3	H. E. 82, Institution Foods	4
Psy. 1, Elem. Psychology	3	Psy. 7, Child Psychology	3
Assembly 2a	.3	Assembly 2b	.3
Phys. Ed., Gym. Practice	.7	Phys. Ed., Gym. Practice	.7
	18.0		18.0

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Eng. 3a or 3b, Hist. of English Literature	3	Bact. 52, Prin. of Bacteriology	4
H. E. 33, Health of the Family	3	H. E. 41, Housing	3
H. E. 81, Institution Marketing	3	H. E. 47, Advanced Clothing	3
H. E. 124, Dietetics	4	H. E. 105a, Seminar in Nutrition	1
H. E. 125, Consumer Problems	3	H. E. 112, Public School Nutrition	3
Assembly 3	.3	H. E. 119b, Experimental Cookery	3
	16.3		17

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Fm. Ec. 140, Rural Sociology or Soc. 1, Prin. of Sociology	3	H. E. 109, Nutrition	4
Jour. 10a, Survey of Jour. or Eng. 6, Essen. of Speech	3	H. E. 117, Interior Decoration	3
H. E. 115, Child Care and Development	2	H. E. 122a, Field Work in Nutrition	2
H. E. 119a, Experimental Cookery	3	H. E. 142b, Home Mgt., Lab.	3
H. E. 142a, Home Mgt., Lec.	3	H. E. 178, Intstitution Organ.	3
	2	Elective	2
	17 or 18		17

Suggested Curriculum for Textiles and Clothing

The curriculum for the freshman year is the same as that of the general curriculum.

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Art 61a, Drawing	3	Art 61b, Drawing	3
Chem. 7, Organic Chemistry	4	Econ. 1, Prin. of Economics	3
Eng. 1a, English Composition	3	Eng. 1b, English Composition	3
H. E. 46, Clothing	3	Jour. 10a, Survey of Jour. or Eng. 6, Essen. of Speech	3
Psy. 1, Elem. Psychology	3	H. E. 41, Housing	2
Assembly 2a	.3	H. E. 47, Adv. Clothing	3
Phys. Ed., Gym. Practice	.7	Assembly 2b	.3
		Phys. Ed., Gym. Practice	.7
	17.0		18 or 19.0

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
A. & P. 3, Physiology	4	H. E. 3, Food and Nutrition	4
Eng. 3a or 3b, History of English Literature	3	H. E. 117, Interior Decoration	3
H. E. 106a, Seminar in Textiles and Clothing	1	H. E. 128, Adv. Clothing Prob.	3
H. E. 116, Adv. Costume Design	3	Psych. 7, Child Psychology	3
H. E. 125, Consumer Problems	3	Electives	4
Elective	3		
Assembly 3	.3		
	17.3		17

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Art 23a, Dec. Arts of 18th Century	2	Art 23b, Dec. Arts of 18th Century	2
Fm. Ec. 140, Rural Sociology	3	Hist. 4b, Mod. Europe since the French Revolution	3
or		H. E. 115, Child Care and Development	3
Soc. 1, Prin. of Sociology	3	H. E. 142b, Home Mgt., Lab.	3
Hist. 4a, Mod. Europe to the French Revolution	3	Electives	6 or 7
H. E. 124, Dietetics	4		
H. E. 142a, Home Mgt., Lec.	2		
Elective	3		
	17		17 or 18

Graduate Work

The Department of Home Economics offers graduate courses leading to the degree of Master of Science in Home Economics.

DEGREES AND CURRICULA IN THE COLLEGE OF ENGINEERING

JAMES HIRAM GRAHAM, C. E., Dean

INTRODUCTORY STATEMENT

The College of Engineering was organized in 1917 by the consolidation of the College of Civil Engineering which was established in 1886, the College of Mechanical and Electrical Engineering established in 1891, and the College of Mining Engineering established in 1901.

It is the purpose of the College of Engineering to train students in the fundamental sciences and to prepare them for a professional career in their chosen branch of engineering

This college endeavors to keep before its students the latest developments in engineering. The physical plant has been rebuilt in the last few years and now comprises 70,000 sq. ft. of offices, class rooms, study halls, drafting rooms, library and modern laboratories. Much new equipment is being provided, which will place the college in a position to carry on extensive research work in the various branches of engineering.

Admission. For admission to the freshman class in the College of Engineering, applicants should present one and one-half units in Algebra and one-half unit in Solid Geometry, 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 or Solid Geometery, will be admitted to the freshman class, but will be required to take extra courses designated to remove the deficiencies. It is desirable, but not obligatory, that applicants also have high school credits in Chemistry, Physics and Trigonometry. See pages 14 to 18.

Courses of Study and Degrees. The College of Engineering offers instruction leading to the following baccalaureate degrees:

Bachelor of Science in Civil Engineering.
- Option 1—A General Course in Civil Engineering.
- Option 2—A Course with Special Emphasis on Sanitary Engineering.
- Option 3—A Course with Special Emphasis on Architectural 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. This gives the student the benefit of one year of training in fundamental subjects before he is required to choose among the various fields.

Options and Electives. Under each curriculum certain options or electives are allowed. In some cases reference is made to "technical" electives and "non-technical" electives. Any course given in the College of Engineering and numbered above 100 will be considered as technical. Certain courses in Physics, Chemistry and Mathematics may be designated by the Head of the Department as technical; otherwise any course taught in colleges other than engineering will be considered as non-technical. Not more than six credits in advanced Military Science may be used as electives. All electives must be approved by the Head of the Department in which the student is taking his major work.

Requirements for Graduation. To receive the Bachelor of Science degree in any one of the five branches of engineering a student must meet the following requirements:

(a) Complete a minimum of 146.0 credits with a standing of "one", exclusive of the basic work in Military Science and Physical Education, Summer Surveying Camp or Summer in the Engineering Laboratories.

(b) Complete the curriculum of the department in which he is taking his major work.

(c) Complete the summer work included in the outline of the curriculum which he is pursuing or submit evidence satisfactory to the Head of his Department that he has had the equivalent in experience.

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).

A student intending to pursue graduate work in another institution should inform himself regarding the requirements for entrance to that particular institution and plan his undergraduate work accordingly.

For further information regarding graduate work, see the graduate school section of this bulletin.

Study Hall. Freshmen in the College of Engineering are required to spend ten hours a week in supervised study. During this time they will be under the general supervision of a faculty member.

Students who may be having especial difficulty in one or more classes will be assigned in small groups of about five to coaching classes in which their study of these subjects will be carefully supervised by selected men from the Junior and Senior Classes.

ALL COURSES LEADING TO ENGINEERING DEGREES

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Eng. 1a English Comp.	3	Eng. 1b English Comp.	3
Assby. 1 Introduc. to Eng.	.3	Assby. 2 Engin'ring Problems	.7
Chem. 2a Gen. Inorganic	4	Chem. 2b Gen. Inorganic	4
Eng. Draw. 1 Elem. Eng. Draw.	2	Civ. Eng. 12 Plane Surveying	2.7
Math. 17 College Algebra	3	Eng. Draw. 3 Descrip. Geometry	3
Math. 18 Plane Trigonometry	2	Math. 19 Analy. Geometry	3
Mil. Sci. 1a First Year Basic	1.3	Mil. Sci. 1b First Year Basic	1.3
Phys. Ed. Gym. Practice	.7	Phys. Ed. Gym. Practice	.7
	16.3		18.4
Study Hall 10 hours		Study Hall 10 hours	

NOTE.—Students who offer only one entrance unit in Algebra will take Mathematics 5 (5.0 credits) instead of Mathematics 17 (3.0 credits). Students who have not had Solid Geometry will take Mathematics 2 (3.0 credits). Due to these additions and for other reasons some students are not able to complete all of the subjects in the foregoing outline during the two regular semesters. Only those who test in the upper forty per cent of the entering freshman class, in general aptitude and in mathematics, will be permitted to pursue the complete course of study as outlined. In other cases the subjects not completed may be taken during the following summer session or the student should plan to extend his program over a five-year period. An outline of a five-year course may be obtained from the Dean of Engineering or from the Head of the Department in which the student expects to major.

CIVIL ENGINEERING

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Assby. 3a Class Society	0.0	Assby. 3b Class Society	0.0
Civ. Eng. 13 Adv. Surveying	3	Appl. Mech. 3 Statics	3
Civ. Eng. 18 Mapping and Topog. Drawing	2	Civ. Eng. 5 Masonry Const.	2
Math. 20a Differ. Calculus	4	Civ. Eng. 16a Route Surveying	2
Phys. 3a Gen. Col. Physics	6	Civ. Eng. 72 Graphic Statics	1.3
Pol. Sci. 15 Probs. of Citizenship or Com. 1 Prins. of Economics	3	Math. 20b Integral Calculus	4
		Phys. 3b Gen. Col. Physics	6
Mil. Sci. 6a Second Yr. Basic	1.5	Mil. Sci. 6b Second Yr. Basic	1.5
	19.5		19.8

SUMMER WORK.

(Surveying Camp—7 Weeks)

(Located at Camp Robinson, Noble, Breathitt County, Kentucky.)

	Hrs. per Week
Civ. Eng. 15 General Surveying (3 weeks)	44
Civ. Eng. 16b Route Surveying (3 weeks)	44
Civ. Eng. 17 Hydrographic Surveying (1 week)	44

To be eligible for the surveying camp a student must have completed the freshman and sophomore years of the required curriculum in either Civil Engineering or Mining Engineering and must have been enrolled as a regular student in the College of Engineering of the University of Kentucky for not less than two semesters.

OPTION ONE

A General Course in Civil Engineering

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 4a Class Society	0.0	Assby. 4b Class Society	0.0
Appl. Mech. 4 Dynamics	2	Civ. Eng. 23 Seminar	1
Appl. Mech. 100 Strength of Materials	4	*Civ. Eng. 106 Foundations and Tunneling	2
Civ. Eng. 31 Highway Const. and Maint.	2	*Civ. Eng. 107 Soil Mechanics	2
Civ. Eng. 35 Highway Mat. Lab.	1	*Civ. Eng. 171b Theory of Struct.	2
Civ. Eng. 49 Railway Const. and Maint.	3	Civ. Eng. 173a Steel Structures	3
Civ. Eng. 81 Testing Materials	1	Eng. Adm. 100a Eng. Val. and Appr.	3
Civ. Eng. 170 Elem. Struct. Design.	3	Geol. 12 Elem. Geology	3
Civ. Eng. 171a Theory of Structures	3	Math. 11 Spherical Trig.	1
Elec. Eng. 101 Elem. of Elec. Eng. Machinery	3	Math. 12 Least Squares	1
		*Met. 26 Eng. Metallurgy	2
	22.0		20.0

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 5a Class Society	0.0	Assby. 5b Class Society	0.0
Civ. Eng. 102 Reinf. Concrete	3	*Arch. Eng. 7 Building Const.	1
Civ. Eng. 104 Reinf. Concrete Design	.7	Civ. Eng. 32 Streets and Pavements	2
Civ. Eng. 113 Geodesy	3	Civ. Eng. 36 Bitum. Materials	1
Civ. Eng. 120 Hydraulics	2	*Civ. Eng. 105 Masonry Structures	3.7
Civ. Eng. 123 Hydraulics Lab.	1.5	Civ. Eng. 122 Water Power Eng.	2
*Civ. Eng. 173b Steel Br. Design	1.3	*Civ. Eng. 181b Independent Problems	3
*Civ. Eng. 181a Independent Problems	1	San. Eng. 151 Water Supply and Waterworks	2
Eng. Adm. 101 Law for Engineers	3	San. Eng. 152 Sewers and Sewage Disposal	2
Geol. 7 Eng. Geology	2	*San. Eng. 153 Design of Waterworks and Sewers	1.3
Mech. Eng. 103 Elem. of Heat-Power Engineering	2	*San. Eng. 156 Water and Sewer Plant Operation	1
	19.5		19.0

OPTION TWO

A Course with Special Emphasis on Sanitary Engineering

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 4a Class Society	0.0	Assby. 4b Class Society	0.0
Applied Mech. 4 Dynamics	2	Bact. 57 Bact. of Water and Sewage	4
Appl. Mech. 100 Strength of Materials	4	Chem. 8 Quant. Analysis	5
Bact. 52 Principles of Bacteriology	4	Civ. Eng. 170 Elem. Struct. Design	3
Chem. 4 Qual. Analysis	4	Civ. Eng. 171a Theory of Struct.	3
Civ. Eng. 81 Testing Materials	1	Eng. Adm. 100a Eng. Val. and Appr.	3
Hyg. 100a Public Health	3	Zool. 1b General Zoology	4
Zool. 1a General Zoology	4		
	22.0		22.0

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 5a Class Society	0.0	Assby. 5b Class Society	0.0
Civ. Eng. 102 Reinf. Concrete	3	Arch. Eng. 5 Building Equip.	2
*Civ. Eng. 104 Reinf. Concrete Design	.7	Civ. Eng. 173a Steel Structures	3
Civ. Eng. 120 Hydraulics	2	*Com. 107 Statistical Methods	3
Civ. Eng. 123 Hydraulic Lab.	1.5	*Geol. 12 Elem. Geology	3
Elec. Eng. 101 Elem. of Elec. Eng. Machinery	3	San. Eng. 151 Water Supply and Waterworks	2
Engr. Adm. 101 Law for Engineers	3	San. Eng. 152 Sewers and Sewage Disposal	2
*Mech. Eng. 103 Elem. of Heat-Power Eng.	2	San. Eng. 156 Water and Sewer Plant Operation	1
San. Eng. 182 Sanitation	3	*San. Eng. 158 Sewer and Water Design	2.7
Zool. 3a Entomology	3		
	21.2		18.7

OPTION THREE

A Course with Special Emphasis on Architectural Engineering

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 4a Class Society	0.0	Assby. 4b Class Society	0.0
Applied Mech. 4 Dynamics	2	Arch. Eng. 1 Arch. Rendering	2
Appl. Mech. 100 Strength of Materials	4	*Art 61b Drawing	3
*Art 61a Drawing	3	*Art 145b Hist. of Architecture	1
*Art 145a Hist. of Architecture	1	Civ. Eng. 23 Seminar	1
Civ. Eng. 81 Testing Materials	1	*Civ. Eng. 106 Foundations and Tunneling	2
Civ. Eng. 170 Elem. Struct. Design	3	Civ. Eng. 173a Steel Structures	3
Civ. Eng. 171a Theory of Structures	3	Eng. Adm. 100a Eng. Val. and Appr.	3
Elec. Eng. 101 Elem. of Elec. Eng. Machinery	3	*Geol. 12 Elem. of Geology	3
Mech. Eng. 103 Elem. of Heat-Power Eng.	2		
	22.0		18.0

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 5a Class Society	0.0	Assby. 5b Class Society	0.0
Arch. Eng. 3 Sanitation, Accoustics, Fire Prevention	3	Arch. Eng. 4b Arch. Design	2.7
Arch. Eng. 4a Arch. Design	2.7	Arch. Eng. 5 Building Equip.	2
*Art 17a Art Appreciation	1	*Arch. Eng. 6 Independent Probs.	5
Civ. Eng. 102 Reinf. Concrete	3	*Arch. Eng. 7 Building Const.	1
Civ. Eng. 104 Reinf. Concrete Design	.7	*Art 17b Art Appreciation	1
*Civ. Eng. 120 Hydraulics	2	*Elec. Eng. 136 Illumination Eng.	4
*Civ. Eng. 123 Hydraulics Lab.	1.5	*Mech. Eng. 110 Heating and Ventil. Design	1.3
*Elec. Eng. 11 Electrical Lab.	1	Mech. Eng. 116 Heating, Ventil. and Air Conditioning	3
Eng. Adm. 100b Val. and Appr. or Engr. Adm. 101 Law for Engineers	3		
	17.9		20.0

* The student may with the approval of the Head of the Department, substitute other courses for an equal number of credits marked *.

Not more than 6.0 credits will be accepted in Advanced Military Science, as substitutions.

ELECTRICAL ENGINEERING

For Freshman Year, see page 74.

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Assby. 3a Class Society	0.0	Assby. 3b Class Society	0.0
Com. 1 Principles of Economics or Pol. Sci. 15 Problems of Citizenship	3	Appl. Mech. 3 Statics	3
Elec. Eng. 11 Electrical Lab.	1	Appl. Mech. 2 Mechanisms	2
Eng. Draw. 18 Eng. Drawing	2	Elec. Eng. 21 Principles of Elec. Engineering	4
Math. 20a Differ. Calculus	4	Math. 20b Integral Calculus	4
Met. 26 Eng. Metallurgy	2	Phys. 3b Gen. Col. Physics	6
Phys. 3a Gen. Col. Physics	6	Mil. Sci. 6b Second Yr. Basic	1.5
Mil. Sci. 6a Second Yr. Basic	1.5		
	19.5		20.5

SUMMER WORK

(Engineering Machine Laboratory—4 weeks.)

Mech. Eng. C-15—44 hours a week—4 weeks.

To be eligible for the summer work in the Machine Laboratory a student must have completed the freshman and sophomore years of the required curriculum in either Electrical or Mechanical Engineering and must have been enrolled as a regular student in the College of Engineering of the University of Kentucky for not less than two semesters.

OPTION TWO

A Course with Special Emphasis on Sanitary Engineering

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 4a Class Society	0.0	Assby. 4b Class Society	0.0
Applied Mech. 4 Dynamics	2	Bact. 57 Bact. of Water and Sewage	4
Appl. Mech. 100 Strength of Materials	4	Chem. 8 Quant. Analysis	5
Bact. 52 Principles of Bacteriology	4	Civ. Eng. 170 Elem. Struct. Design	3
Chem. 4 Qual. Analysis	4	Civ. Eng. 171a Theory of Struct.	3
Civ. Eng. 81 Testing Materials	1	Eng. Adm. 100a Eng. Val. and Appr.	3
Hyg. 100a Public Health	3	Zool. 1b General Zoology	4
Zool. 1a General Zoology	4		
	22.0		22.0

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 5a Class Society	0.0	Assby. 5b Class Society	0.0
Civ. Eng. 102 Reinf. Concrete	3	Arch. Eng. 5 Building Equip.	2
*Civ. Eng. 104 Reinf. Concrete Design	.7	Civ. Eng. 173a Steel Structures	3
Civ. Eng. 120 Hydraulics	2	*Com. 107 Statistical Methods	3
Civ. Eng. 123 Hydraulic Lab.	1.5	*Geol. 12 Elem. Geology	3
Elec. Eng. 101 Elem. of Elec. Eng. Machinery	3	San. Eng. 151 Water Supply and Waterworks	2
Engr. Adm. 101 Law for Engineers	3	San. Eng. 152 Sewers and Sewage Disposal	2
*Mech. Eng. 103 Elem. of Heat-Power Eng.	2	San. Eng. 156 Water and Sewer Plant Operation	1
San. Eng. 182 Sanitation	3	*San. Eng. 158 Sewer and Water Design	2.7
Zool. 3a Entomology	3		
	21.2		18.7

OPTION THREE

A Course with Special Emphasis on Architectural Engineering

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 4a Class Society	0.0	Assby. 4b Class Society	0.0
Applied Mech. 4 Dynamics	2	Arch. Eng. 1 Arch. Rendering	2
Appl. Mech. 100 Strength of Materials	4	*Art 61b Drawing	3
*Art 61a Drawing	3	*Art 145b Hist. of Architecture	1
*Art 145a Hist. of Architecture	1	Civ. Eng. 23 Seminar	1
Civ. Eng. 81 Testing Materials	1	*Civ. Eng. 106 Foundations and Tunneling	2
Civ. Eng. 170 Elem. Struct. Design	3	Civ. Eng. 173a Steel Structures	3
Civ. Eng. 171a Theory of Structures	3	Eng. Adm. 100a Eng. Val. and Appr.	3
Elec. Eng. 101 Elem. of Elec. Eng. Machinery	3	*Geol. 12 Elem. of Geology	3
Mech. Eng. 103 Elem. of Heat-Power Eng.	2		
	22.0		18.0

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 5a Class Society	0.0	Assby. 5b Class Society	0.0
Arch. Eng. 3 Sanitation, Accoustics, Fire Prevention	3	Arch. Eng. 4b Arch. Design	2.7
Arch. Eng. 4a Arch. Design	2.7	Arch. Eng. 5 Building Equip.	2
*Art 17a Art Appreciation	1	*Arch. Eng. 6 Independent Probs.	5
Civ. Eng. 102 Reinf. Concrete	3	*Arch. Eng. 7 Building Const.	1
Civ. Eng. 104 Reinf. Concrete Design	.7	*Art 17b Art Appreciation	1
*Civ. Eng. 120 Hydraulics	2	*Elec. Eng. 136 Illumination Eng.	4
*Civ. Eng. 123 Hydraulics Lab.	1.5	*Mech. Eng. 110 Heating and Ventil. Design	1.3
*Elec. Eng. 11 Electrical Lab.	1	Mech. Eng. 116 Heating, Ventil. and Air Conditioning	3
Eng. Adm. 100b Val. and Appr. or Engr. Adm. 101 Law for Engineers	3		
	17.9		20.0

* The student may with the approval of the Head of the Department, substitute other courses for an equal number of credits marked *.

Not more than 6.0 credits will be accepted in Advanced Military Science, as substitutions.

ELECTRICAL ENGINEERING

For Freshman Year, see page 74.

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Assby. 3a Class Society	0.0	Assby. 3b Class Society	0.0
Com. 1 Principles of Economics or Pol. Sci. 15 Problems of Citizenship	3	Appl. Mech. 3 Statics	3
Elec. Eng. 11 Electrical Lab.	1	Appl. Mech. 2 Mechanisms	2
Eng. Draw. 18 Eng. Drawing	2	Elec. Eng. 21 Principles of Elec. Engineering	4
Math. 20a Differ. Calculus	4	Math. 20b Integral Calculus	4
Met. 26 Eng. Metallurgy	2	Phys. 3b Gen. Col. Physics	6
Phys. 3a Gen. Col. Physics	6	Mil. Sci. 6b Second Yr. Basic	1.5
Mil. Sci. 6a Second Yr. Basic	1.5		
	19.5		20.5

SUMMER WORK

(Engineering Machine Laboratory—4 weeks.)

Mech. Eng. C-15—44 hours a week—4 weeks.

To be eligible for the summer work in the Machine Laboratory a student must have completed the freshman and sophomore years of the required curriculum in either Electrical or Mechanical Engineering and must have been enrolled as a regular student in the College of Engineering of the University of Kentucky for not less than two semesters.

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 4a Class Society	0.0	Assby. 4b Class Society	0.0
Applied Mech. 4 Dynamics	2	Elec. Eng. 110 Elec. Laboratory	2
Appl. Mech. 100 Strength of Materials	4	Elec. Eng. 116 A. C. Circuits and Machinery	4
Civ. Eng. 81 Testing Materials	1	Eng. Adm. 100a Eng. Val. and Appr.	3
Elec. Eng. 115 D. C. Machinery	4	Mech. Eng. 105 Steam Power Plant Equipment	2
Math. 105a Differ. Equations	3	Mech. Eng. 112 Mech. Laboratory	2
Mech. Eng. 104 Eng. Thermodynamics	4	Phys. 114 Vacuum Tubes and Circuit Theory	3
Mech. Eng. 121 Machine Design	2	Technical Elective	3
	20.0		19.0

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 5a Class Society	0.0	Assby. 5b Class Society	0.0
Elec. Eng. 108 Eng. Electronics or Elec. Eng. 131a Elec. Com. Engin.	3	Civ. Eng. 120 Hydraulics	2
Elec. Eng. 111a Adv. Elec. Lab.	2	Civ. Eng. 123 Hydraulics Lab.	1.5
Elec. Eng. 117 A. C. Machinery	4	Elec. Eng. 107 Electrical Control	3
Elec. Eng. 141 Analytical Elec. Engineering	3	Elec. Eng. 123 Elec. Equip. Prob.	2
Elec. Eng. 151a Elec. Eng. Seminar	.5	Elec. Eng. 151b Elec. Eng. Seminar	.5
Eng. Adm. 100b Eng. Val. and Appr. or Eng. Adm. 101 Law for Engineers	3	Non-Technical Elective	3
Mech. Eng. 111 Engr. Reports	2	Electives in Elec. Eng. (See the following list.)	7
Non-Tech. Elective	3		
	20.5		19.0

APPROVED ELECTIVES IN ELECTRICAL ENGINEERING

	Credits
Elec. Eng. 111b Electric Laboratory	1
Elec. Eng. 124 Electrical Design	3
Elec. Eng. 131b Electrical Communication Engineering	3
Elec. Eng. 136 Illumination Engineering	4
Elec. Eng. 137 Electrical Power Trans. and Distribution	3
Elec. Eng. 152a Independent Problems	2
Elec. Eng. 152b Independent Problems	3
Elec. Eng. 152c Independent Problems	4

MECHANICAL ENGINEERING

For Freshman Year, see page 74.

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Assby. 3a Class Society	0.0	Assby. 3b Class Society	0.0
Com. 1 Principles of Economics or Pol. Sci. 15 Problems of Citizenship	3	Appl. Mech. 3 Statics	3
Eng. Draw. 18 Eng. Drawing	2	Appl. Mech. 2 Mechanisms	2
Math. 20a Differ. Calculus	4	Eng. Draw. 12 Graphical Computations	2.3
Met. 35 Eng. Metallurgy	2	Math. 20b Integral Calculus	4
Phys. 3a Gen. Col. Physics	6	Phys. 3b Gen. Col. Physics	6
Mil. Sci. 6a Second Yr. Basic	1.5	Mil. Sci. 6b Second Yr. Basic	1.5
	18.5		18.8

SUMMER WORK

(Engineering Machine Laboratory—4 weeks.)
Mech. Eng. C-15—44 hours a week—4 weeks.

To be eligible for the summer work in the Machine Laboratory a student must have completed the freshman and sophomore years of the required curriculum in either Electrical or Mechanical Engineering and must have been enrolled as a regular student in the College of Engineering of the University of Kentucky for not less than two semesters.

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 4a Class Society	0.0	Assby. 4b Class Society	0.0
Applied Mech. 4 Dynamics	2	Appl. Mech. 105 Appl. Elasticity	3
Appl. Mech. 104 Strength of Materials	4	Elec. Eng. 106 A. C. Circuits and Machinery	4
Civ. Eng. 81 Testing Materials	1	Engl. 30 Business English	2
Elec. Eng. 105 D. C. Cir. and Machinery	4	Mech. Eng. 100b Machine Design	3.3
Mech. Eng. 100a Machine Design	2.3	Mech. Eng. 106a Heating, Ventil. and Air Conditioning	3
Mech. Eng. 104 Eng. Thermodynamics	4	Mech. Eng. 108 Internal Comb. Engines	3
Met. 36 Phys. Met. of Heat Treat.	3	Mech. Eng. 112 Mech. Laboratory	2
	20.3		20.3

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 5a Class Society	0.0	Assby. 5b Class Society	0.0
Appl. Mech. 106 Adv. Strength of Material	3	Appl. Mech. 107 Mech. Vibration	3
Civ. Eng. 20 Hydraulics	1	Eng. Adm. 100a Eng. Val. and Appr.	3
Eng. Adm. 100b Eng. Val. and Appr. or Eng. Adm. 101 Law for Engineers	3	Mech. Eng. 101 Mech. Engr. Design	3
Mech. Eng. 105 Steam Pr. Pt. Eng.	2	Mech. Eng. 120 Independent Problems	5
Mech. Eng. 106b Heating, Ventil. and Air Conditioning	2	Mech. Eng. 122b Seminar	1
Mech. Eng. 107 Flow of Gases	1	Non-Technical Elective	5
Mech. Eng. 109 Refrigeration	3		
Mech. Eng. 111 Engr. Reports	2		
Mech. Eng. 113 Mech. Lab.	2		
Mech. Eng. 122a Seminar	1		
	20.0		20.0

METALLURGICAL ENGINEERING

For Freshman Year, see page 74.

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Assby. 3a Class Society	0.0	Assby. 3b Class Society	0.0
Chem. 6 Qual. Analysis	4	Chem. 8 Quant. Analysis	5
Com. 1 Principles of Economics or Pol. Sci. 15 Problems of Citizenship	3	Eng. Draw. 115, Photography	3
		Math. 20b Integral Calculus	4
Math. 20a Differential Calculus	4	Met. 29 Metallurgy of Ferrous Metals	3
Met. 27 General Metallurgy	2	Phys. 3b Gen. Col. Physics	6
Phys. 3a Gen. Col. Physics	6	Mil. Sci. 6b Second Yr. Basic	1.5
Mil. Sci. 6a Second Yr. Basic	1.5		
	20.5		22.5

SUMMER WORK

(Metallurgical Laboratory—6 weeks.)
Metallurgy 60—44 hours a week—6 weeks.

To be eligible for the summer work in Met. 60 a student must have completed the freshman and sophomore years of the required curriculum in Metallurgical Engineering and must have been enrolled as a regular student in the College of Engineering, University of Kentucky, for not less than two semesters.

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 4a Class Society	0.0	Assby. 4b Class Society	0.0
Appl. Mech. 3 Statics	3	Appl. Mech. 100 Strength of Materials	4
Chem. 131a Physical Chemistry	4	Chem. 131b Physical Chemistry	5
Elec. Eng. 101 Elem. of Elec. Eng. Machinery	3	Elec. Eng. 102 Elec. Engineering Machinery	2
Geol. 123a Mineralogy	3	Eng. Adm. 100a Eng. Val. and Appr.	3
Met. 166a Extractive Metallurgy	3	Met. 166b Extractive Metallurgy	3
Phys. 117 Theory of Heat	3	Phys. 123 Prin. of Thermodynamics	3
	19.0		20.0

SUMMER WORK

(Metallurgical Laboratory—6 weeks.)

Met. 120—Assaying—44 hours a week for 2 weeks.
Met. 121—Fuel and Metallurgical Lab.—44 hours a week for 2 weeks.
Met. 167—Extractive Met. Plant Practice—44 hours a week for 2 weeks.

To be eligible for the summer work in Met. 120 and 121 a student must have completed the first two years of the curriculum in either Metallurgical or Mining Engineering. To be eligible for the summer work in Met. 167 he must have completed the first three years of the curriculum in Metallurgical Engineering.

To be eligible for any summer work he must have been enrolled as a regular student in the College of Engineering, University of Kentucky for not less than two semesters.

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 5a Class Society	0.0	Assby. 5b Class Society	0.0
Eng. Adm. 100b Eng. Val. and Appraisals or Eng. Adm. 101 Law for Engineers	3	Civ. Eng. 120 Hydraulics	2
		Met. 132 Met. Calculations	5
Met. 128 Met. of Non-Ferrous Metals	3	Met. 142 Heat Treatment	3.3
Met. 140 Science of Metals	3	Met. 175b Seminar	1
Met. 150 Industrial Mineral Prep. and Uses	3	Met. 143 Phys. of Metals	5
Met. 175a Seminar	1	Language—French or German	3
Phys. 119 Prin. of X-Rays	3		
Language—French or German	3		
	19.0		19.3

MINING ENGINEERING

For Freshman Year, see page 74.

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Assby. 3a Class Society	0.0	Assby. 3b Class Society	0.0
Chem. 6 Qual. Analysis	4	Chem. 8 Quant. Analysis	5
Com. 1 Principles of Economics or Pol. Sci. 15 Problems of Citizenship	3	Geol. 12 Elem. Geology	3
Math. 20a Differential Calculus	4	Math. 20b Integral Calculus	4
Met. 26 Engineering Metallurgy	2	Phys. 3b Gen. Col. Physics	6
Phys. 3a Gen. Col. Physics	6	Mil. Sci. 6b Second Yr. Basic	1.5
Mil. Sci. 6a Second Yr. Basic	1.5		
	20.5		19.5

SUMMER WORK

(Metallurgical Laboratory—4 weeks.)

Met. 120—Assaying—44 hours a week for 2 weeks.

Met. 121—Fuel and Metallurgical Lab.—44 hours a week for 2 weeks.

To be eligible for the summer work in Met. 120 and 121 a student must have completed the first two years of the curriculum in either Metallurgical or Mining Engineering and must have been enrolled in the College of Engineering, University of Kentucky, for not less than two semesters.

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 4a Class Society	0.0	Assby. 4b Class Society	0.0
Applied Mech. 3 Statics	3	Applied Mech. 100 Strength of Materials	4
Civ. Eng. 72 Graphic Statics	1.3	Civ. Eng. 123 Hydraulics Lab.	1.5
Civ. Eng. 120 Hydraulics	2	Eng. Adm. 100a Engineering Val. and Appraisals	3
Elec. Eng. 101 Elements of Elec. Eng. Machinery	3	Elec. Eng. 102 Electrical Eng. Machinery	2
Geol. 7 Eng. Geology	2	Geol. 123b Mineralogy	3
Geol. 123a Mineralogy	3	Min. 126a Development of Mines	4
Mech. Eng. 103 Elements of Heat-Power Eng.	2	Met. 166b Extractive Metallurgy	3
Met. 166a Extractive Metallurgy	3		
	19.3		20.5

SUMMER WORK

(Surveying Camp—4 weeks, Metallurgical Laboratory—2weeks.)

Min. 160—44 hours a week for 4 weeks.

Met. 167—44 hours a week for 2 weeks.

To be eligible for the summer work in Min. 160 a student must have completed the first three years of the required curriculum in Mining Engineering.

To be eligible for the summer work in Met. 167 he must have completed the first three years of the required curriculum in either Metallurgical or Mining Engineering.

To be eligible for any summer work he must have been enrolled as a regular student in the College of Engineering of the University of Kentucky for not less than two semesters.

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Assby. 5a Class Society	0.0	Assby. 5b Class Society	0.0
Civ. Eng. 102 Reinforced Concrete	3	Civ. Eng. 81 Testing Materials	1
Civ. Eng. 104 Reinforced Concrete Design	.7	Civ. Eng. 171a Theory of Structures	3
Eng. Adm. 100b Eng. Val. and Appraisals or Eng. Adm. 101 Law for Engineers	3	Min. 127b Mining Underground	2
Met. 150 Ind. Mineral Preparation and Uses	3	Min. 128 Mining at the Surface	3
Min. 126b Development of Mines	2	Min. 129b Mine Vent. and Drainage	2
Min. 129a Mine Vent. and Drainage	3	Min. 130b Mine Administration	2
Min. 130a Mine Administration	2	Min. 175b Seminar	1
Min. 175a Seminar	1		
Min. 127a Mining Underground	3		
	20.7		14.0

DEGREES AND CURRICULA
IN THE
THE COLLEGE OF LAW

ALVIN E. EVANS, M. A., Ph. D., J. D., Dean

The College of Law was organized in 1908 and the first class graduated in June, 1910. The school is co-educational and a number of women have entered and graduated from it. It has been for many years a member of the Association of American Law Schools and has, likewise, been approved by the American Bar Association. In order that a school may be approved by the American Bar Association, it must require at least two years of college work for entrance. It must require three full years of attendance upon classes, have an adequate library, and a number of full-time teachers sufficient to insure personal acquaintance and influence with the whole student body.

ORDER OF THE COIF

In the spring of 1931, a chapter of the Order of the Coif was established at Kentucky. Out of the many law schools in the nation, 35 have been granted chapters. A chapter is granted upon a consideration of all the factors which tend to make a strong law school such as standing and ability of the faculty, the comprehensiveness of the library, the quality of teaching and research, standards of admission, strictness of grading, and other intangible items.

THE KENTUCKY LAW JOURNAL

The Kentucky Law Journal has become one of the leading legal periodicals published by American law schools. The articles and notes in it have been cited in many books and periodicals and are used by lawyers and courts. Copies of it are mailed to subscribers in all parts of the world. It contains leading articles by lawyers and scholars, notes and case comments by students, and book reviews. The staff is composed of those students who have made a standing of B or better in the Law School. The members of the staff are required to prepare two case notes each year.

THE LIBRARY

The library has enjoyed a material growth in recent years. The volumes now number somewhat more than 30,000. It contains the existing statutes of all the states and territories of the United States, Canada and England. It also contains all of the reports of American

courts of final jurisdiction and such intermediate reports as are published; the English, Irish and the Canadian Federal and Provincial Reports, together with the Reports of the District of Columbia, the Hawaiian and the Philippine, Alaskan, Canal Zone, and Puerto Rican reports, and some fifteen hundred treatises besides current digests and citators.

It takes the various services such as bankruptcy, social security and tax services, and 100 legal periodicals, 12 of which are foreign and it has complete sets of legal periodical indexes and digests.

ENROLMENT

The student body has increased, with continued regularity, so that now the total for the entire year amounts to approximately 170. There has been a constantly increasing tendency to select the student body with greater care and to encourage applicants who have not shown special proficiency in their pre-legal work to seek more suitable employment. Also many who have been admitted to the college are advised to transfer to other work at the end of their first year of law when it appears to the faculty that they are not adapted to the high requirements of the profession.

Fellowships have been obtainable in the large schools for graduate work in law with considerable regularity. This seems to indicate the esteem in which the law school work is held by the large universities. One member of last year's class has a fellowship at the Yale Law School and another has a fellowship at the Michigan Law School.

THE HAGGIN ENDOWMENT

The sum of $1,000 annually has been appropriated by the University from the Haggin endowment to encourage the preparation of annotations, with Kentucky decisions, of the Restatement of the Law. It is expected that some six or eight students will be employed at a reasonable compensation to assist in this work. The work of annotating is supervised by members of the staff.

THE FACULTY

The choice of the staff has been guided by two considerations: (1) ability to do good teaching, and (2) ability to guide others in the solution of legal problems and to contribute to the knowledge of the law. Thus, there are men who have become expert in the fields of procedure, property, contracts, equity and trusts, constitutional law and public law, criminal law and procedure, and in administrative law. All the members of the staff have done graduate work in one or more of the large law schools, and give at least some time to research.

THE LAW BUILDING

In order to accommodate the growing student body and the increasing library, a new building has been constructed on the campus and is now occupied by the law school. It is built of red pressed brick, glass brick being used in part for two sides of the reading room. The building is modern in architecture, being constructed on modified classical lines. It contains 9 offices, 3 classrooms, a court room, a stack room for reports, a grill room for treatises, a lounging room, and a study room. Various other rooms are provided, such as an apartment for the Kentucky Law Journal. The building occupies a most sightly and beautiful location, being across the walk and to the west of the main library.

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 service). See statement, p. 17.

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, economics and accounting. Those who would like special advice concerning their work are invited to communicate with the dean.

COURSES LEADING TO DEGREES OF A. B. AND B. S. IN COMMERCE COMBINED WITH THE LL. B. COURSE

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 B. S. in Commerce and also the degree of Bachelor of Laws. In a similar way the combined course in Arts and Sciences will lead to the degree of Bachelor of Arts and the degree of Bachelor of Laws. The first year's work in law is credited toward the B. S. degree in Commerce or the A. B. degree as well as toward the LL. B. degree, and the student may thus obtain his first 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	Credits	Second Semester	Credits
Property I	2	Property II	2
Pleading I	2	Pleading II	2
Contracts I	3	Contracts II	3
Torts I	3	Torts II	3
Domestic Relations	2	Agency	2
Crimes I	2	Crimes II	2

SECOND YEAR SUBJECTS

First Semester	Credits	Second Semester	Credits
Property III	3	Public Utilities	3
Trial Procedure	4	Insurance	2
Constitutional Law I	2	Constitutional Law II	2
Equity I	3	Equity II	3
Legal Bibliography	—	Municipal Corporations	2
Quasi-Contracts	2	Evidence	4
Negotiable Instruments	3	Wills	3

THIRD YEAR SUBJECTS

First Semester	Credits	Second Semester	Credits
Corporations I	2	Corporations II	3
Credit Transactions	3	Property IV	3
Administrative Law	3	Conflict of Laws	3
Practice Court	2	Legislation	3
Taxation	3	Creditors Rights	3
Trusts	4	Sales	3
Problems of Research	1 or 2	Problems of Research	1 or 2

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 extent as that given in the same course 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, 1941, 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 1943, or if he desires to obtain both the academic and law degrees he may do so in June, 1944. 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 largerly determined by the number of students applying for instruction therein.

SUMMER SESSION, 1940

FIRST YEAR SUBJECTS

Pleading I-II. Keigwin's Cases on Common Law Pleading; Sunderland's Cases on Code Pleading. Daily (2 hours). First Term. Professor Randall.

Personal Property. Roberts Cases. Daily. Second Term. Professor Pittman.

Agency. Steffen's Cases. Daily. Second Term. Professor Pittman.

SECOND AND THIRD YEAR SUBJECTS

Legislation. Parkinson's Cases. Daily. First Term. Professor Eblen.

Creditors' Rights. Hanna and McLaughlin's Cases. Daily. First Term. Professor Roberts.

Labor Law. Landis' Cases. Daily. First Term. Professor Eblen.

Private Corporations I-II. Frey's Cases. Daily (2 hours). Second Term. Professor Evans.

Oil and Gas. Kulp's Cases. Daily. Second Term. Professor Moreland.

Public Utilities. Robinson's Cases (2nd ed.). Daily. Second Term. Professor Moreland.

Municipal Corporations. Stason's Cases. Daily. First Term. Professor Roberts.

DEGREES AND CURRICULA IN THE COLLEGE OF EDUCATION

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

INTRODUCTORY STATEMENT

Organization. The College of Education was established by the University to provide for the education of teachers, supervisors, elementary and high school principals, city and county superintendents, and critic teachers for the schools of Kentucky. School boards are demanding professionally prepared teachers, supervisors, and administrators. The curricula offered by the College have been planned to enable the student to procure the education that will best equip 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 and home economics on a vocational basis. This cooperative relationship makes possible splendid facilities for observation and practice in both of these subjects. The students in both agriculture and home economics work under skilled supervisors in their respective fields.

Arrangements have been made with public school systems in and around Lexington to cooperate with the University in offering a fifth year of teacher education through an internship. These internships are open to graduate students who have strong scholarship records and who have had successful student teaching experience. By taking 12 credits in the two summer terms before the internship begins in September, 9 credits each semester, and 6 credits the summer term following the internship, the requirements for the degree of Master of Arts in Education can be met.

The intern will receive from $400 to $600 for his work in the public school system. He will carry from one-half to two-thirds of a normal teaching load. The arrangement with the public school provides that the student does not take the place of a regular

teacher. The cooperating public school systems are under no obligation to employ the intern at the close of the internship; however, in many instances the student does become a member of the regular staff.

The advantages of this program are:

1. The student begins teaching in a normal situation under efficient supervision with an opportunity for professional growth.
2. It enables the student to earn living expenses while doing a year of graduate work.
3. If the work during the internship has been highly satisfactory, the student may be placed on the regular staff in one of Kentucky's better public school systems.

Teachers' Certificates. The University of Kentucky offers curricula for all certificates issued by the State Department of Education on four years of college education in accordance with the school code adopted by the General Assembly in 1934. Programs that prepare especially for teaching in the elementary school, the junior high school, and the senior high school, for attendance officers, supervisors, elementary principals, high school principals, county superintendents, city superintendents, critic teachers, and other administrative, supervisory, and instructional employees will be offered through the College of Education at the University.

Admissions. To be admitted to the College of Education a freshman must be in the upper 80 per cent of his class. Students transferring to the College of Education from another college on the campus or from another institution must have a standing of at least 1 (average of C on all previous college work). This standing must be maintained if the student is to remain in the College of Education.

Only candidates of proved scholastic ability are admitted to the professional training for teachers at the University of Kentucky. A student is not permitted to enrol in a professional course unless he has a standing of 1. A student is not permitted to do directed teaching unless he is classified as a senior or graduate student and meets the departmental requirements for directed teaching.

Only candidates possessing healthy bodies, free of major physical defects, are accepted for professional training. A thorough physical examination by University physicians is required the semester prior to enrolment in directed teaching.

Candidates for directed teaching are advised to file their applications a semester previous to their directed teaching.

REQUIREMENTS FOR GRADUATION

The College of Education grants two degrees: a Bachelor of Arts in Education and a Bachelor of Science in Education.

Students who major in education and select their group work in art, business education, English, library science, mathematics, music, natural sciences, social sciences, physical education, 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 or home economics will be entitled to consideration for the degree of Bachelor of Science in Education.

Students who desire to complete the curriculum for elementary teachers will be entitled to consideration for the degree, Bachelor of Arts in Education.

REQUIREMENTS FOR STUDENTS MAJORING IN ELEMENTARY EDUCATION

A total of 127 credits with a standing of 1.0.

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 (IV, V, VI). It is desirable that the student make this decision as early as possible. 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.

If the critic teacher reports a student deficient in spelling, penmanship, or English fundamentals the student will be required to take extra work to make up this deficiency.

VOCATIONAL EDUCATION

Agriculture. The Federal Vocational Education Act passed by Congress in 1917 makes provision for the education of teachers of vocational agriculture in schools below college grade. The University of Kentucky has been designated as the institution in the state to educate white teachers for this work.

Students who complete the work for a bachelor's degree in agriculture and who present fifteen credits in education as prescribed in the state plans for vocational 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 education of teachers for vocational home economics in schools below college grade. The University of Kentucky has been designated as the institution in the state to educate 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 as prescribed in the state plans for vocational education 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 education of teachers for unit-trade and part-time programs in industrial education and for general continuation school classes. The University of Kentucky has been designated as the institution in the state responsible for the education of teachers for this work.

Distributive Occupations. The George-Deen Act approved June 8, 1936, effective July 1, 1937, provides for the education of teachers for distributive occupations education. The University of Kentucky has been designated as the institution in the state to educate teachers for this work.

CURRICULA FOR ELEMENTARY AND SECONDARY TEACHERS

SUGGESTED FOUR-YEAR CURRICULUM FOR ELEMENTARY TEACHERS

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Eng. 1a Engl. Composition	3	Eng. 1b English Composition	3
Hist. 5a History of U. S.	3	Hist. 5b History of U. S.	3
P. S. 15 Prob. of Citizenship	3	Psych. 1 Elementary Psychology	3
Hyg. 9 Hygiene for Teachers	2	Mus. 4b Music in the Intermediate Grades	2
Mus. 4a Music in Primary Grades	2	Science	3
Science	3	Elective	2
Matriculation Lecture	.3	P. E. Activity Course	.7
P. E. Activity Course	.7		
	17.0		16.7

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Eng. 3a Survey of Eng. Lit.	3	Eng. 3b Survey of Eng. Lit.	3
Geol. 24a Elem. of Geog.	3	Geography Elective	3
Psych. 7 Child Psychology	3	P. E. 42 Phy. Ed. in the Elem. School	3
Science	2	Art 10b Public School Art	2
Art 10a Public School Art	2	Elective (Ed. 35 recommended)	3
Elective	3	Science	2
	16		16

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Ed. 44 Fund. Elem. Educ.	5	Econ. 15 Applied Economics	3
Ed. 42 Teaching Arithmetic	3	Ed. 172 Teaching Reading	3
Soc. 2 Modern Social Prob.	3	Ed. 20 Industrial Arts	2
H. E. 16 Elem. Nutrition	3	Ed. 173 Children's Literature	3
Hist. 40 History of Kentucky	2	Zool. 108b Heredity	2
		Elective	3
	16		16

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
**Ed. 196 Teaching Science	3	*Ed. 133 Directed Teaching (either semester)	10
*Ed. 133 Directed Teaching in Elementary Grades (either semester)	10	Ed. 118 Educational Tests and Measurements for Elementary Teachers	2
Electives	2	Electives	3
	15		15

** Kindergarten majors omit Educ. 196 and take the following courses:
Ed. 174—Pre-School Theory and Management (Junior year).
Ed. 176—Pre-School Organization and Teaching (Junior year).
Kindergarten majors may substitute a music elective course for Music 4b.

* The student may take only 6 credits in addition to Educ. 133, and these classes must come either at the first hour or late afternoon. Students having 3 credits in practice teaching take Educ. C133, 6 credits.

Transfer students will be required to take a minimum of three semester hours in elementary education at the University of Kentucky before enrolling for practice teaching.

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)	6
	or	
	Foreign Language*	(6 to 12)
	Social Science, selected from Economics, Government, History, Sociology	12
	Psychology	6
	Health, Physical Education and Safety	4
	Military Science 1a-b, 6a-b	5.6
	Matriculation Lecture	.3
	Total	57 to 63
2.	**Teaching Area**	42–54
	or	
	Two Teaching Majors	24–48 each
	or	
	One Teaching Major	24–48 each
	Two Teaching Minors	18–21 each
3.	**Professional Major****	
	Education 35, Introduction to Education	3
	Education 122, Tests and Measurements	3

* If three units or more of a single foreign language are offered for admission, six semester hours in the same language as offered for admission will be required, if two units are offered for admission nine semester hours will be required, if one unit or less is offered for admission twelve semester hours will be required.

** Physical Education, Music, and Art Majors should substitute Education 16, Educational Psychology, and Education C44, Fundamentals of Elementary Education, for Education 35 and Education 122. Business Education Majors should substitute Education 104, Foundations of Business Education, and Education 158a, b, Teaching Secretarial Subjects and Accounting, for Education 101 and Education 105.

Education 105, Fundamentals of Secondary Education	3
Education 101, School Organization	3
Directed Teaching	6

COURSES RECOMMENDED FOR A TEACHING MAJOR IN ENGLISH

FIRST YEAR	Credits
English 1a-b, English Composition	6
English 6, The Essentials of Speech	2
SECOND YEAR	
English 3a-b, English Literature	6
English 34a-b, Dramatic Production (one or both semesters)	2 or 4
THIRD YEAR	
English 123a-b, American Literature	6
English (Elective)	6
English 7a or b, Public Speaking	3
FOURTH YEAR	
English (Elective)	6

Suggested electives: Journalism 21, Etymology; Library Science 105, Reading Guidance.

COURSES RECOMMENDED FOR A TEACHING MAJOR IN FRENCH

FIRST YEAR	Credits
French 1a-b, Elementary	6
SECOND YEAR	
French 2a-b, Intermediate French	6
French 16a-b, Civilization of France	2
THIRD YEAR	
French 6a-b, French Novel and Drama	6
French 8a, Phonetics	3
French 113a, Advanced Grammar and Composition (To be taken in junior year if student teaching is done first semester of senior year.)	3
FOURTH YEAR	
French 113a, Advanced Grammar and Composition (To be taken in first semester of senior year if student teaching is done second semester of senior year.)	3
French (Elective)	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 TEACHING MAJOR IN LATIN

FIRST YEAR	Credits
Latin 5 and 6, Livy and Horace	6
SECOND YEAR	
Latin 7 and 8, Tacitus and Pliny or Terence	6
THIRD YEAR	
Latin 109a-b, Latin Literature	6
Latin 120, Greek Civilization	3
Latin 121, Roman Civilization	3
Latin 114a-b, Adv. Latin Composition	2
FOURTH YEAR	
Latin Electives	6

COURSES RECOMMENDED FOR A TEACHING MAJOR IN MATHEMATICS

FIRST YEAR	Credits
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 TEACHING MAJOR IN THE BIOLOGICAL SCIENCES

FIRST YEAR	Credits
Botany 1a-b, General Botany	8
SECOND YEAR	
Zoology 1a-b, General Zoology	8
Anatomy and Physiology 1a-b, General Physiology	6
THIRD YEAR	
Botany 19, Dendrology	2
Botany 15, Local Flora	3
FOURTH YEAR	
Zoology 102, Ornithology	3
Zoology 108a-b, Principles of Zoology	4

COURSES RECOMMENDED FOR A TEACHING MAJOR IN CHEMISTRY

FIRST YEAR	Credits
Chemistry 1a-b, General Inorganic Chemistry	10
SECOND YEAR	
Chemistry 4, Qualitative Analysis	4
THIRD YEAR	
Chemistry 8, Quantitative Analysis	5
FOURTH YEAR	
Chemistry 7, Organic Chemistry	4
Chemistry 17, Gas Analysis	1

COURSES RECOMMENDED FOR A TEACHING MAJOR IN PHYSICS

FIRST YEAR	Credits
Physics 1a-b, General Physics	10
SECOND YEAR	
Physics 2a-b, General College Physics	10
THIRD YEAR	
Physics 108, Theory of Light	3
Physics 113, Fundamentals of Radio	3

COURSES RECOMMENDED FOR A TEACHING MAJOR IN HISTORY AND POLITICAL SCIENCE

FIRST YEAR	Credits
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
History 4a-b, History of Modern Europe 6

THIRD YEAR
Political Science 155a-b, Comparative Government 6
History 105, Colonial America 3
History 106a-b, Latin America 4

FOURTH YEAR
History 166a-b, Division and Reunion 6
History 147, Recent History of the United States 3

Suggested electives: Sociology 1-2, Principles of Sociology and Modern Social Problems; Economics 1, Principles of Economics; Economics 15, Applied Economics.

COURSES RECOMMENDED FOR COMMERCE TEACHERS

FIRST YEAR	Credits
Commerce 2, Economic History of Europe	3
Commerce 3, Economic History of the United States	3
SECOND YEAR	
Commerce 1, Principles of Economics	3
Commerce 7a-b, Principles of Accounting	8
Commerce 8, Economic Geography	3
Commerce 9, Forms of Business Organization	3
THIRD YEAR	
Commerce 11, Salesmanship	2
Commerce 13a-b, Secretarial Practice	6
Commerce 105, Money and Banking	3
Commerce 117, Corporation Finance	3
Commerce 145, Problems in Office Management	3
*Education 104, Foundations of Business Education in the High School	3
Commerce 17a-b, Secretarial Practice and Typewriting	4
FOURTH YEAR	
Commerce 14a-b, Advanced Secretarial Practice	6
Commerce 15, Applied Economics	3
Commerce 109a-b, Business Law	6
**Education 158a, Teaching Secretarial Subjects	2
**Education 158b, 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 Business Education so as to prepare for teaching specific combinations.

* Will substitute for Education 101 in professional requirements.
** Will substitute for Education 105 in professional requirements.

COURSES REQUIRED FOR A TEACHING MAJOR IN PHYSICAL EDUCATION

FIRST YEAR	Credits
Physical Education 40a, b	2
Physical Education 41, Introduction to Physical Education	1
Physical Education 36, Basketball and Football Fundamentals	4*
Music 15a, b, Applied Music (Piano)	2**
Zoology 1a-b, General Zoology	8
SECOND YEAR	
Physical Education 40c, d	2
Physical Education 70, Principals of Athletic Training and First Aid	1
Anatomy and Physiology 4, 5, Anatomy and Physiology for Physical Education Majors	6
THIRD YEAR	
Physical Education 40e, f	2
Physical Education 123, History and Principles of Physical Education	3
Physical Education 129, Physical Education in the Secondary School	3
Physical Education 120, Physical Diagnosis and Medical Gymnastics	3

* For men only.
** For women only.

FOURTH YEAR

Physical Education 40g	1**
Physical Education 149, Administration of Physical Education and Athletics	3
Physical Education 112, Programs and Materials in Physical Education for Girls and Women	3**
Hygiene 110, Supervision of Health Education in the Schools	3

COURSES REQUIRED FOR A TEACHING MINOR IN PHYSICAL EDUCATION

FIRST YEAR	Credits
Physical Education 40a, b, Techniquies of Physical Education Activities	2
Physical Education 41, Introduction to Physical Education	1
Physical Education 36, Fundamentals of Football and Basketball	4*
SECOND YEAR	
Physical Education 40c, d, Techniques of Physical Education Activities	2**
Physical Education 40c, Techniques of Physical Education Activities	1*
Physical Education 70, First Aid	1
Physical Education 55, Technique and Procedure of the Dance	2**
THIRD YEAR	
Physical Education 40e, Techniques of Physical Education Activities	1**
Physical Education 123, History and Principles of Physical Education	3
Physical Education 129, Physical Education in the Secondary School	3
FOURTH YEAR	
Physical Education 149, Administration of Physical Education and Athletics	3
Physical Education 112, Programs and Materials in Physical Education for Girls and Women	3**

COURSES REQUIRED FOR A TEACHING AREA IN PHYSICAL EDUCATION

(Forty-eight hours.)

FIRST YEAR	Credits
Physical Education 40a, b, Techniques of Physical Education Activities	2
Physical Education 41, Introduction to Physical Education	1
Physical Education 36, Fundamentals of Football and Basketball	4*
Zoology 1a, b, General Zoology	8
Music 15a, b, Applied Music (Piano)	2**
SECOND YEAR	
Physical Education 40c, d, Techniques of Physical Education Activities	2
Physical Education 42, Physical Education in the Elementary School	3
Physical Education 70, First Aid	1
Physical Education 55, Technique and Procedure of the Dance	2**
Anatomy and Physiology 4, 5, Anatomy and Physiology for Physical Education Majors	6
THIRD YEAR	
Physical Education 40e, f, Techniques of Physical Education Activities	2
Physical Education 123, History and Principles of Physical Education	3
Physical Education 129, Physical Education in the Secondary School	3
Physical Education 151, Organization of Intramural Sports and Sports Officiating	3
Physical Education 120, Physical Diagnosis and Corrective Physical Education	3
Hygiene 110, Supervision of Health Education in the Schools	3

* For men only.

** For women only.

FOURTH YEAR

Physical Education 40g, h, Techniques of Physical Education Activities	2
Physical Education 149, Administration of Physical Education and Athletics	3
Physical Education 125, Administration of Recreation	3
Physical Education 115, History of the Dance	3**
Physical Education 112, Programs and Materials in Physical Education for Girls and Women	3**
Physical Education 142, Advanced Football	2*
Physical Education 131, Advanced Basketball	2*

* For men only.

** For women only.

CURRICULUM FOR TEACHERS OF HOME ECONOMICS

(Leading to the degree of Bachelor of Science in Home Economics in the College of Agriculture.)

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Art 30a Introd. to Art	2	Art 30b Introd. to Art	2
Chem. 1a Genl. Inorganic	5	Chem. 1b Genl. Inorganic	5
H. E. 6a Foods	3	H. E. 6b Foods	3
H. E. 26 Textiles	2	H. E. 29 Costume Design	3
Phys. 51a Introd. to Phys.	3	Phys. 51b Introd. to Phys.	3
Assembly 1	.3	Phys. Ed. Gym. Practice	.7
Phys. Ed. Gym. Practice	.7		
	*16.0		*16.7

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
A. & P. 3 Physiology	4	Econ. 1 Principles of Economics	3
Chem. 7 Organic	4	Eng. 1b English Composition	3
Eng. 1a English Composition	3	H. E. 3 Food and Nutrition	4
H. E. 46 Clothing	3	H. E. 41 Housing	3
Psy. 1 Elem. Psychology	3	Psy. 7 Child Psychology	3
Assembly 2a	.3	Assembly 2b	.3
Phys. Ed. Gym. Practice	.7	Phys. Ed. Gym. Practice	.7
	18.0		17.0

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Ed. 147 Foundations of Secondary Education	3	Bact. 52 Prin. of Bacteriology	4
Eng. 3a or 3b Hist. of English Literature	3	Ed. 160 Techniques of Teaching Home Economics	3
H. E. 115 Child Care and Development	3	Jour. 10a Survey of Jour. or Eng. 6 Essen. of Speech	3 or 2
H. E. 124 Dietetics	4	H. E. 47 Adv. Clothing	3
H. E. 125 Consumer Problems	3	H. E. 117 Interior Decoration	3
Assembly 3	.3	†H. E. 142a Home Mgt., Lec.	2
	16.3		17 or 18

* Students whose classification test places them in the lowest section of English 1a and 1b will be limited to 15 credits until a passing grade is earned in 1b.

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
‡Ed. 162 Direct. Teach. in Home Economics	6	Ed. 101 School Organization	3
Fm. Ec. 140 Rural Sociology	3	‡Ed. 162 Direct. Teaching in Home Economics	6
or		‡H. E. 142b Home Mgt., Lab.	3
Soc. 1 Prin. of Sociology	3	Electives	4
†H. E. 142a Home Mgt.	2		
Electives	6		
	17		16

† May be taken either the second semester of the Junior year or the first semester of the Senior year.

‡ May be taken either semester. It is recommended that H. E. 142b and Ed. 162 be taken the same semester.

CURRICULUM FOR MEN PREPARING TO TEACH VOCATIONAL AGRICULTURE

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
A. I. 31 Market Classes and Breeds of Livestock	3	A. I. 32 Farm Poultry Production	3
A. I. 33 Dairying	3	Chem. 1a General Inorganic	5
Agronomy 11 Farm Crops	3	Bot. 1b General Botany	4
Bot. 1a General Botany	4	Eng. 1b English Composition	3
Eng. 1a English Composition	3	M. S. 1b First Yr. Basic Course	1.3
M. S. 1a First Yr. Basic Course	1.3	P. E. Activity Course	.7
P. E. Activity Course	.7		
Freshman Assembly	.3		
	18.3		17.0

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Chem. 1b General Inorganic	5	Bact. 52 Principles of Bacteriology	4
Econ. 1 Principles of Economics	3	Geol. 3 Elements of Geology	3
Hort. 1 General Horticulture	3	Farm Econ. 4 Agricultural Economics	3
Farm Eng. 10 Mechanics of the Farmstead	3	A. I. 20 Principles of Animal Nutrition	3
M. S. 6a Second Year Basic Course	1.5	Agronomy 4 Soils	3
		M. S. 6b Second Year Basic Course	1.5
	15.5		17.5

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Farm Ec. 113 Genl. Farm Mgt.	3	*Ed. 16 Educational Psychology	3
Markets and Rural Fin. 108 Marketing	3	Zool. 25 Gen. Animal Biology	3
Farm Eng. 12 Farm Structural Engineering (Farm Shop)	3	Hort. 110 Vegetable Gardening	3
A. I. 19 Genetics	3	A. I. 107 Sheep Production	3
Agronomy 115 Soil Management	3	A. I. 13 Livestock Judging	2
A. I. 106 Pork Production	3	Agronomy 23 Plant Pathology	4
		Agronomy 105 Advanced Crops	3
		Agri. Ent. 102 Adv. Agri. Entomology	3
		Hort. 113 Landscape Gardening	3
		Farm Eng. 13 Gen. Farm Shop	3
	18	(Student load of 18 hours to be chosen from this list.)	

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Markets and Rural Fin. 133 Agricultural Policy	3	Ed. 122 Tests and Measurements	3
Farm Econ. 114 Advanced Farm Mgt.	3	A. I. 105 Beef Production	3
A. I. 102 Farm Butchering and Curing of Meats	4	A. I. 134 Adv. Poultry Production	3
Agronomy 113 Agr. Experimentation	3	A. P. 116 Diseases of Domestic Animals	4
Hort. 105 Small Fruits	2	A. I. 125 Dairy Cattle Feeding and Management	3
*Ed. 181 Tch. Vocational Agriculture (either semester)	7	*Ed. 181 Tch. Vocational Agriculture (either seemster)	7
Journ. 10a Surv. of Journalism	3	*Ed. 182 Evening School and Part-Time Courses in Agr.	2
Markets and Rural Fin. 111 Agr. Prices	3		

(Student load of 18 hours to be chosen from the above lists.)

* Starred courses are professional courses required of students planning to teach vocational agriculture. After the sophomore year, the student's schedule must be approved by his adviser in agricultural education and by his adviser in agriculture. Students who become teachers are required to take Ed. 179, Determining Course-Content in Vocational Agriculture, which is offered the first 2½ weeks of the summer school. Including Ed. 179, the student must present at least 18 credits in education.

SUGGESTED CURRICULUM FOR TEACHER LIBRARIANS

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Eng. 1a English Composition	3	Eng. 1b English Composition	3
Hist. 4a Mod. Europe to the French Revolution	3	Hist. 4b Mod. Europe since the French Revolution	3
Science	3	Science	3
P. S. 15 Problems of Citizenship	3	P. S. 51 American Government	3
Mathematics	3	Mathematics	3
or		or	
Foreign Language	3	Foreign Language	3
Hyg. 9 Hygiene for Teachers	2	Mus. 20 Survey of Musical Lit.	2
P. E. Activity Course	.7	P. E. Activity Course	.7
	17.7		17.7

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Eng. 3a History of English Literature	3	Eng. 3b History of English Literature	3
Hist. 5a History of U. S. to 1860	3	Hist. 5b History of U. S. since 1860	3
Science	3	Science	3
Psych. 1 Elementary Psychology	3	Psych. 7 Psychology of the Child	3
*Foreign Language	3	*Foreign Language	3
or		or	
**Elective	3	**Elective	3
Art 30a Introduction to Art	2	Art 30b Introduction to Art	2
P. E. Activity Course	.7	P. E. Activity Course	.7
	17.7		17.7

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Ed. 35 Introduction to Educ.	3	Ed. 105 Fund. of Sec. Education	3
Ed. 101 School Organization	3	Ed. 122 Tests and Measurements	3
Eng. 123a American Literature before 1860	3	Eng. 123b American Literature since 1860	3
**Electives	5	Eng. 130b Comparative Literature	3
L. Sc. 133a Reference and Bibliography	3	**Electives	5
	17		17

* See general requirements for high school teachers, page 92.

** Electives may be chosen from the following: Art 23a, b; English 7a, 34a or b, 110a, b, 111b, 130a; History 40, 106b, 120, 147, 180a, b; Journalism 10a; Library Science 25; Political Science 101, 155b, 165, 172; Sociology 110.

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Directed Teaching	6	Library Science	16
Library Science	11		
	17		16

GRADUATE CURRICULA LEADING TO THE MASTER'S DEGREE

The entire curriculum must in each case be a well rounded program of courses related to the student's major interest and approved by his adviser. In case of deficient preparation the adviser, with the approval of the Dean, may prescribe prerequisite undergraduate courses to be taken.

The program for the elementary-school principal and supervisor should be supplemented by previous experience, by courses in school administration, child psychology, fine or industrial arts, music, children's literature, social studies, health, science, or other subject-matter fields.

Advisers for curricula leading to the master's degree in the field of education are as follows:

For Superintendents and Principals of Twelve-Grade Schools—Seay, Taylor, Williams

For Elementary-School Principals and Supervisors—Duncan, Taylor, Williams, Seay

For Secondary-School Principals—Ligon, Adams, Ross

For Critic Teachers on the Elementary Level—Duncan, Williams, Seay

For Critic Teachers on the High School Level—Williams, Ligon, Duncan

For Business Teachers—Lawrence, Taylor, Guy

For Teachers of Home Economics—Parker, Spickard, Taylor

For Teachers of Vocational Agriculture—Hammonds, Woods, Taylor

For Teachers who desire to Major in Education—Adams, Ross, Taylor, Patrick

In following the programs suggested below, these general requirements should be kept in mind:

1. The student must complete a minimum of 24 semester hours of graduate work and write a thesis.
2. An adviser must be selected before the close of the first term the student is in residence at the University of Kentucky. This adviser should be selected only after consultation with the dean of the Graduate School and the dean of the College of Education
3. At least 12 semester hours of graduate work must be in education.
4. At least 12 semester hours of graduate work must be in courses numbered 200 or above.

5. At least 36 weeks must be spent in residence at the University of Kentucky as a graduate student.
6. At least one-half of the credit and residence required must be earned while the student is in full residence at the University of Kentucky either in a summer term or in a semester.
7. The total number of credits presented in education, undergraduate and graduate, must be at least 30 semester hours.
8. A standing of 2.0 or an average of B must be made on all graduate work.

Students may by permission of the Dean of the Graduate School and the Dean of the College of Education, elect to do additional work in lieu of writing a thesis, in which case the following requirements would apply:

1. A minimum of 36 hours of graduate work must be completed.
2. An adviser must be selected before the close of the first term the student is in residence at the University of Kentucky. This adviser should be selected only after consultation with the dean of the Graduate School and the dean of the College of Education.
3. At least 18 hours of graduate work must be in education.
4. At least 18 semester hours must be in courses at the 200 level or above.
5. At least 48 weeks must be spent in residence at the University of Kentucky as a graduate student.
6. At least one-half of the credit and residence required must be earned while the student is in full residence at the University of Kentucky either in a summer term or in a semester.
7. The total number of credits presented in education, undergraduate and graduate, must be at least 30 semester hours.
8. A standing of 2.0 or an average of B must be made on all graduate work.

Students who desire to qualify for the certificate in administration and supervision should select their courses to meet the requirements of the State Department of Education for such certificate.

CURRICULUM FOR SUPERINTENDENTS AND SUPERVISORS AND FOR PRINCIPALS OF TWELVE-GRADE SCHOOLS

Course	Credits
Education 202—Local School Administration	3
Education 225—Supervision of Instruction	3
Education 212—The Elementary School	3
Education 229—The Elementary Principal	3
Education 214—The Secondary School	3
Education 232—High School Administration	3
Education 227a—Principles of Curriculum Construction	3
Education 227b—Techniques in Curriculum Construction	3

CURRICULUM FOR ELEMENTARY SCHOOL PRINCIPALS AND SUPERVISORS

Course	Credits
Education 200—Advanced Course in Philosophy of Education	3
Education 212—The Elementary School	3
Education 229—The Elementary Principal	3
Education 225—Supervision of Instruction	3
Education 227a—Principles of Curriculum Construction	3
Electives	9

CURRICULUM FOR SECONDARY SCHOOL PRINCIPALS

Course	Credits
Education 214—The Secondary School	3
Education 222—Methodology of Educational Research	3
Education 223—Educational Statistics	3
Education 225—Supervision of Instruction	3
Education 227a—Principles of Curriculum Construction	3
Education 232—High School Administration	3
Electives	6

The State of Kentucky issues a critic teacher's commission based upon the completion of a year of graduate work in an accredited graduate school. The programs outlined below offer the required work to obtain a commission to serve as critic teacher in Kentucky.

CURRICULUM FOR CRITIC TEACHERS ON THE ELEMENTARY LEVEL

Course	Credits
Education 200—Advanced Course in Philosophy of Education	3
Education 212—The Elementary School	3
Education 222—Methodology of Educational Research	3
Education 224a, c—Organization and Supervision of Student Teaching	6
Education 229—The Elementary Principal	3
Electives	6

CURRICULUM FOR CRITIC TEACHERS ON THE HIGH SCHOOL LEVEL

Course	Credits
Education 200—Advanced Course in Philosophy of Education	3
Education 214—The Secondary School	3
Education 222—Methodology of Educational Research	3
Education 224a, b—Organization and Supervision of Student Teaching	6
A graduate course in problems of teaching in the special field	3
Electives	6

Elementary teachers and high school teachers frequently find it desirable to supplement their professional program with additional work in education. The following curriculum has been outlined to provide an enriched background of professional education for teachers. It is recommended that wherever possible elective courses in this curriculum be taken in subject matter fields.

CURRICULUM FOR TEACHERS WHO DESIRE TO MAJOR IN EDUCATION

Course	Credits
Education 219—Great Educators and Their Work	3
Education 200—Advanced Course in Philosophy of Education	3
Education 254—Problems in Educational Psychology	3
Education 227a—Principles of Curriculum Construction Education 227b—Techniques in Curriculum Construction	3
Electives	12

CURRICULUM FOR TEACHERS OF VOCATIONAL AGRICULTURE

Course	Credits
Education 179—Determining Content in Vocational Agriculture	3
Education 287b—Selecting Teaching Materials	3
Education 287c—Evening Schools / Education 287f—Part-Time Schools	3
Education 287d—Directing Farm Practice	3
Education 122—Tests and Measurements for High School Teachers Education 200—Advanced Course in Philosophy of Education Education 214—The Secondary School Education 222—Methodology of Educational Research Education 225—Supervision of Instruction	12

CURRICULUM FOR TEACHERS OF HOME ECONOMICS

Course	Credits
Education 264—Modern Tendencies in Home Economics Education	3
Education 268—Home Economics Curriculum Construction	3
Education 266—Seminar in Home Economics Education / Education 222—Methodology of Educational Research	3
Education 269—Achievement Testing in Home Economics	3
Electives	12

CURRICULUM FOR SUPERVISORS OF HOME ECONOMICS

Course	Credits
Education 264—Modern Tendencies in Home Economics Education	3
Education 268—Home Economics Curriculum Construction	3
Education 266—Seminar in Home Economics Education / Education 222—Methodology of Educational Research	3
Education 269—Achievement Testing in Home Economics	3
Education 261—Home Economics Supervision	3
Education 267—Directed Supervision in Home Economics Education	3
Electives	6

CURRICULUM FOR TEACHERS OF BUSINESS SUBJECTS

Course	Credits
Education 184—Teaching Office Appliances	2
Education 208a or 208b—Problems in Business Education	3
Education 257a or 257b—Seminar in Business Education	1
Education 259—The Commerce Curriculum	3
Education 158a—Teaching Secretarial Subjects Education 158b—Teaching Accounting Education 192—Teaching General Business Education 256—Teaching the Social Busi. Subjects	2 or 3
Education 200—Advanced Course in Philosophy of Education Education 220—Comparative Education Education 205—Review of Current Educational Literature	3
Education 222—Methodology of Educational Research Education 223—Educational Statistics	3
Commerce	9

CURRICULUM FOR TEACHERS OF MUSIC

Course	Credits
Education 251—Problems in Public School and Community Music	3
Education 252—Field Problems in Music	1
Education 253—Independent Work in Music Education	3
Education 225—Supervision of Instruction	3
Education 254—Problems in Educational Psychology	3
Education 222—Methodology of Educational Research	3
Music 110a, b—Independent Work in Music	4
Music 203—Choral Literature and Technique	2
Music 204—Advanced Band Technique	2
Music 208a, or 208b—Seminar in Music	1

CURRICULUM FOR TEACHERS OF PHYSICAL EDUCATION

Course	Credits
Education 202—Local School Administration	3
Education 214—The Secondary School	3
P. E. 200—Graduate Seminar in Physical Education	2
P. E. 201—Research in Physical Education	5
P. E. 203—Current Studies in the Administration of Physical Educa.	2
P. E. 204—Current Studies in the Administration of Athletics	
P. E. 128—Principles and Methods of Physical Education	3
P. E. 149—Administration of Physical Education and Athletics	3
P. E. 151—Organization of Intramural Sports	3
P. E. 112—Programs and Materials of Physical Education for Girls	
P. E. 115—History and Survey of the Dance	

CURRICULUM FOR ATHLETIC COACHES AND DIRECTORS AND RECREATION DIRECTORS

Course	Credits
Education 202—Local School Administration	3
Education 214—The Secondary School	3
P. E. 200—Graduate Seminar in Physical Education	2
P. E. 201—Research in Physical Education	5
P. E. 203—Current Studies in the Administration of Physical Educ.	2
P. E. 204—Current Studies in the Administration of Athletics	

For Athletic Coaches and Directors

P. E. 151—Organization of Intramural Sports	2
P. E. 142—Advanced Football	2
P. E. 131—Advanced Basketball	2

For Recreation Directors

P. E. 125—Administration and Organization of Municipal and Community Recreation	3

CURRICULUM LEADING TO THE DOCTORATE DEGREE

For information concerning curricula leading to the degree of Doctor of Philosophy with education as a major, students should advise with the Dean of the Graduate School and with the Dean of the College of Education.

DEGREES AND CURRICULA IN THE COLLEGE OF COMMERCE

Edward Wiest, M. A., Ph. D., Dean

INTRODUCTORY 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 understanding of the general aspects of economic relationships. Students interested primarily from the latter point of view are advised to take the more general courses. Students who intend to specialize in commerce should register in the College of Commerce and follow one of the prescribed curricula.

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 providing 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	Credits	Second Semester	Credits
Com. 2 Econ. Hist. of Europe	3	Com. 3 Econ. Hist. of U. S. or Com. 8 or 12 Econ. Geography	3
Math. 17 College Algebra	3	Math. 24 Elem. Theory of Statistics	2
Psy. 2a Gen. Psychology	3	Psy. 2b Gen. Psychology	3
Hyg. 1 Per. and Com. Health	1	Hist. 4b Europe since the French Revolution	3
Eng. 1a English Composition	3	Eng. 1b English Composition	3
Mil. Sci. 1a First Year Basic	1.3	Mil. Sci. 1b First Year Basic	1.3
Phys. Ed. Gym. Practice	.7	Phy. Ed. Gym. Practice	.7
Electives	1 to 3		
	16.0		16.0

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Com. 1 Prin. of Econ.	3	Com. 9 Form of Bus Org.	3
Com. 7a Prin. of Accounting	4	Com. 7b Prin. of Accounting	4
Pol. Sci. 51 Am. Govt.	3	Math. 15 Math. of Finance	3
Biol. or Phys. Science	3 or 4	Biol. or Phys. Science	3 or 4
Mil. Sci. 6a Sec. Year Basic	1.5	Com. 10 Prin. of Marketing	3
Electives	3	Mil. Sci. 6b Sec. Year Basic	1.5
	17.5		17.5

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Com. 150 Business Statistics	2	Com. 105 Money and Banking	3
Corporation Finance 117	3	Eng. 30 Business English	2
Electives including one from Advertising, Salesmanship or Sociology	10	Com. 110 Business Cycles	3
		Electives including one Commerce course	7
	15		15

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Com. 109a Business Law	3	Com. 109b Business Law	3
Com. 104 Public Finance	3	Com. 137 Problems in Management or Com. 138 Investigation of Business Problems	3
Electives including one Commerce course	9	Electives including one Commerce course	9
	15		15

Total credits—127.

INDUSTRIAL ADMINISTRATION CURRICULUM

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Com. 2 Econ. Hist. of Europe	3	Com. 8 Economic Geography or Com. 12 Economic Geography of Western Hemisphere	3
Math. 17 College Algebra	3	Math. 19 Plane Analytics	3
Math. 18 Plane Trigonometry	2	Chem. 1b Gen. Inorganic	5
Chem. 1a Gen. Inorganic	5	Math. 24 Elem. Theory of Statistics	2
Eng. 1a English Comp.	3	Eng. 1b English Comp.	3
Mil. Sci. 1a 1st Yr. Basic	1.3	Mil. Sci. 1b 1st Yr. Basic	1.3
Phy. Ed. Gymnasium Practice	.7	Phy. Ed. Gymnasium Practice	.7
	18.0		18.0

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Com. 1 Prin. of Economics	3	Com. 9 Forms of Bus. Org.	3
Com. 7a Prin. of Accounting	4	Com. 7b Prin. of Accounting	4
Pol. Sci. 51 American Govt.	3	Physics 1b General Physics	5
Physics 1a General Physics	5	English 30 Business English	2
Drawing 17a Eng. Drawing	2	Drawing 17b Eng. Drawing	2
Mil. Sci. 6a 2nd Yr. Basic	1.5	Mil. Sci. 6b 2nd Yr. Basic	1.5
	18.5		17.5

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Hyg. 1 Per. and Com. Health	1	Com. 117 Corporation Finance	3
Com. 150 Business Statistics	2	Com. 103 Transportation	3
Com. 10 Marketing of Com. 11 Salesmanship	3 or 2	Hist. 4b Modern Europe since the French Revolution	3
Com. 118 Cost Accounting	3	Psy. 112 Personnel Adm.	3
Psychology 10 Intro. to Psy.	3	*Electives is Physics, Geology, Chemistry or theoretical courses in Engineering	6
*Electives in Physics, Geology, Chemistry or theoretical courses in Engineering	6		
	18		18

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Com. 109a Business Law	3	Com. 109b Business Law	3
Com. 126 Econ. of Pub. Util.	3	Com. 137 Prob. in Management	3
Com. 105 Money and Banking	3	Com. 102 Labor Prob. or Com. 130 Labor Legis.	3
Com. 104 Public Finance	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 minimum 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	Credits	Second Semester	Credits
Com. 2 Econ. Hist. of Europe	3	Com. 3 Econ. Hist. of U. S. or Com. 8 or 12 Econ. Geog.	3
Math. 17 College Algebra	3	Math. 24 Elem. Theory of Statistics	2
Psy. 2a Gen. Psychology	3	Psy. 2b Gen. Psychology	3
Hyg. 1 Per. and Com. Health	1	Hist. 4b Mod. Europe since the French Revolution	3
Eng. 1a English Comp.	3	Eng. 1b English Comp.	3
Mil. Sci. 1a First Year Basic	1.3	Mil. Sci. 1b First Year Basic	1.3
Phy. Ed. Gym. Practice	.7	Phy. Ed. Gym. Practice	.7
	15.0		16.0

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Com. 1 Prin. of Econ.	3	Com. 9 Forms of Bus. Org.	3
Com. 7a Prin. of Accounting	4	Com. 7b Prin. of Accounting	4
Pol. Sci. 51 Am. Govt.	3	Pol. Sci. 80 State Govt.	3
Biol. or Phys. Sci. or Foreign Language	3 or 4	Biol. or Phys. Sci. or Foreign Language	3 or 4
Mil. Sci. 6a Sec. Year Basic	1.5	Math. 15 Math. of Finance	3
Elective	3	Mil. Sci. 6b Sec. Year Basic	1.5
	17.5		17.5

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Com. 102 Labor Problems	3	Com. 105 Money and Banking	3
Com. 117 Corporation Finance	3	Com. 10 Prin. of Marketing	3
Com. 104 Public Finance	3	Elem. Phil. or Logic	3
Com. 150 Business Statistics	2	Electives in Commerce	8
English 30 Business English	2		
Elective in Commerce or Sociology	3		
	16		17

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Property I	2	Property II	2
Torts I	3	Torts II	3
Contracts I	3	Contracts	3
Domestic Relations	2	Agency	2
Criminal Law I	2	Criminal Procedure II	2
Pleading I	2	Pleading II	2
	14		14

Total credits—127

The Combined Commerce-Law Course is intended for students who wish to complete in six years the requirements for the two degrees of Bachelor of Science in Commerce and Bachelor of Laws. 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	Credits	Second Semester	Credits
Com. 2 Econ. Hist. of Europe	3	Com. 3 Econ. Hist. of U.S. or Com. 8 or 12 Econ. Geog.	3
For. Lang. or Math. 17 College Algebra	3	For. Lang. or Math. 15, Math. of Finance	3
Psy. 2a Gen. Psychology	3	Psy. 2b General Psychology	3
Eng. 1a English Comp.	3	Pol. Sci. 51 Am. Gov.	3
Hist. 4b Mod. Europe since the French Revolution	3	Eng. 1b English Comp.	3
Mil. Sci. 1a First Year Basic	1.3	Mil. Sci. 1a First Year Basic	1.3
Phy. Ed. Gym. Practice	.7	Phy. Ed. Gym. Practice	.7
	17.0		17.0

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Com. 1 Prin. of Economics	3	Com. 9 Forms of Bus. Org.	3
Com. 7a Prin. of Accounting	4	Com. 7b Prin. of Accounting	4
Biol. or Phys. Science	3 or 4	Biol. or Phys. Science	3 or 4
Com. 13a Sect. Pract. Shorthand	3	Com. 13b Sect. Pract. Shorthand	3
Com. 17a Sect. Pract. Typewriting	2	Com. 17b Sect. Pract. Typewriting	2
Hyg. 1 Per. and Com. Health	1	Mil. Sci. 6b Sec. Year Basic	1.5
Mil. Sci. 6a Sec. Year Basic	1.5		
	17.5		16.5

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Com. 151 Sect. Statistics	3	Com. 105 Money and Banking	3
Com. 117 Corp. Finance	3	Soc. Prin. of Sociology	3
Com. 10 Prin. of Marketing	3	Com. 14b Adv. Sect. Practice	3
Com. 14a Adv. Sect. Practice	3	Elective in English	3
Eng. 30 Business English	2	Elective	3
	14		15

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Com. 6 Sect. Accounting	3	Com. 11 Salesmanship	2
Com. 109a Business Law	3	Com. 109b Business Law	3
Com. 145 Problems in Office Management	3	Electives including two Commerce courses	10
Com. 104 Public Finance	3		
Elective	3		
	15		15

Total credits—127.

CURRICULUM FOR COMMERCE TEACHERS

Students preparing to teach business 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 commerce teachers offered by the College of Education. It is possible for students registered for either the General Business Curriculum or the Secretarial Training Curriculum to prepare for teaching by electing required courses in 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

In view 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 con-

centrate their electives in such professional fields as merchandising, salesmanship, advertising, insurance and personnel management. It is suggested that women students especially consider the desirability of taking electives in social welfare work. If no specialization is desired it is possible to take a number of unrelated courses with a view to securing greater breadth of 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

DEGREES AND CURRICULA IN THE GRADUATE SCHOOL

WILLIAM D. FUNKHOUSER, M. A., Ph. D., D. Sc., 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 Arts in Education
Master of Science in Education
Master of Science in Agriculture
Master of Science in Home Economics
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
Master of Science in Public Health
Civil Engineer (C. E.)
Electrical Engineer (E. E.)
Mechanical Engineer (M. E.)
Metallurgical Engineer (Met. E.)
Mining Engineer (E. M.)
Doctor of Philosophy

The degree of Doctor of Philosophy is offered with major work in the following departments: Agricultural Economics and Rural Sociology, Chemistry, Education, Economics, English, History, 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 on 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 step in the procedure for admission to the Graduate School is the filing with the Registrar of 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 the regular University catalog which have numbers above 100 may be counted as credit toward 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 $7.00 per credit hour. Part-time students also pay a registration fee of $4.00.

Before the advanced degree is conferred, a fee of $15.00 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 DEGREES 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.

The requirements for the degrees of Master of Arts and Master of Science are as follows:

Credits. The candidate shall complete twenty-four semester hours of graduate work in course with a standing of 2 and no grade below C shall be counted.

Courses. The major field shall comprise, as to courses, approximately two-thirds of the work with electives (within the department or allied departments) of approximately one-third of the work. The two shall have graduate relationship. All of the work may be taken within one department if the student desires.

Residence. The minimum residence is one academic year of 36 weeks. This residence 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 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, but the amount of residence for part-time work is limited, except for graduate assistants and part-time instructors, to not more than six weeks in any one semester.

Transfer of Credits. No transferred credits are accepted toward the Master of Arts or Master of Science degrees. All work for these degrees must be done at the University of Kentucky. However, a student is not asked to repeat a course which he has satisfactorily completed at another institution.

Thesis. A thesis is required of every candidate. 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.

Language Requirement. A reading knowledge of at least one modern foreign language is required. This language should be pertinent to the program of the student. The language requirement must be satisfied by an examination given by the foreign language department offering instruction in the language concerned. The passing of this examination shall satisfy one of the two language requirements for the doctorate.

Examinations. 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.

REQUIREMENTS FOR THE DEGREES OF MASTER OF ARTS IN EDUCATION AND MASTER OF SCIENCE IN EDUCATION

The professional degree of Master of Arts in Education is open to students who have reached the degree of B. A. or B. A. in Education and the professional degree of Master of Science in Education is open to students who have received the degree of B. S. or B. S. in Education.

Two plans are provided for satisfying the requirements for either of these degrees as follows:

1. Twenty-four credits in graduate courses with an average standing of 2, exclusive of the thesis, one academic year (36 weeks) in residence, and an acceptable thesis. No grade below C may be counted.
2. At the option of the department (not of the student) the master's degree in Education may be granted for the completion of thirty-six credits in graduate courses with an average standing of 2 or better, forty-eight weeks in residence, and no requirement of a thesis.

There is no language requirement for either of these professional degrees.

REQUIREMENTS FOR THE DEGREES OF MASTER OF SCIENCE IN AGRICULTURE AND MASTER OF SCIENCE 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 following requirements:

1. The completion of 24 credits of graduate work with an average standing of 2 or better, 36 weeks of residence, and a thesis, or
2. The completion of 36 credits of graduate work with a standing of 2 or better, 48 weeks of residence, and no thesis requirement.
3. Under either plan no grade below C may be counted.
4. One-half the work must be in one department, the remainder in any other department or departments approved by the major professor.

There is no language requirement for either of these professional degrees.

REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN PUBLIC HEALTH

Students holding a bachelor's degree from an approved college or university or an M. D. degree from an approved medical school may

obtain the degree of Master of Science in Public Health by satisfying the following requirements:

1. Twenty-four credits in graduate courses with an average standing of 2.
2. No grade below C may be counted.
3. Thirty-six weeks of residence.
4. An acceptable thesis.
5. The passing of a final comprehensive examination.

There is no language requirement for this degree.

REQUIREMENTS FOR ADVANCED DEGREES IN ENGINEERING

Two classes of advanced degrees are offered in the College of Engineering, the Master's Degrees and the Professional Degrees.

The Master's Degrees in Engineering. The master's degrees in engineering may be obtained by satisfying the following requirements:

Twenty-four credits in graduate courses, with an average standing of 2, one academic year (thirty-six weeks) in residence, and an acceptable thesis. No grade below C may be counted. There is no language requirement for these degrees.

The candidate must hold the corresponding bachelor's degree in engineering from this institution or from another engineering school of recognized standing. The degrees offered 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 and Master of Science in Mining Engineering.

The Professional Degrees 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 a graduate of the University of Kentucky, College of Engineering, who presents satisfactory evidence of professional work of creditable 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. A candidate holding a master's degree in engineering shall be considered to have fulfilled two years of the five-year requirement for the corresponding professional degree.

An application for a professional degree must be made to the Dean of the Graduate School and have the approval of the Graduate Committee of the College of Engineering not less than one academic year before the degree may be granted. Advanced degrees may be granted at any one of the regular University Commencement periods.

The Graduate Committee will pass on the qualifications of each applicant. It may, at its discretion, require an oral examination. The applicant is expected to submit a record of his engineering experience, which should include a complete list of his professional

engagements, showing in each case the length of time employed and the position held. He should give for references the names of at least three persons who are familiar with his engineering work. Preferably these persons should be connected with the organizations by whom he has been employed.

A thesis is required of each candidate. It may be in the field of research, design, invention or engineering processes and methods. It must contain some original thought and be the product of the individual submitting it. Quotations and references with the proper credit may be used. In general, the thesis should be of such a nature that it will be of value to the engineering profession.

The candidate holding a bachelor'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.

Fees. Except for part-time work, the fees for a resident student who is a candidate for a master's degree in engineering are the same as for undergraduates. The fees for a professional degree are $15.00 for registration and $15.00 for graduation.

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, through long study, of independent and comprehensive scholarship in a special field. Such scholarship should be shown by a thorough acquaintance with present knowledge in his special field of learning and a marked capacity for research.

REQUIREMENTS FOR APPLICANT

Admission. Admission to the Graduate School and acceptance of advanced credits from other institutions must first be approved by the Registrar.

In order to be accepted as an applicant for the degree of Doctor of Philosophy the student must present evidence that he has completed an undergraduate course and has received his baccalaureate degree from a college of recognized standing.

The Graduate Committee reserves the right to decide in each case of applicancy for a degree whether the prerequisite training has been satisfactory and, if any of the years of advanced work have been passed in another institution, whether they may be properly regarded

as having been spent under suitable guidance and favorable conditions. Private study is not considered as equivalent to university work. In any case the student must pass the qualifying examinations 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 on 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 Comptroller 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

The University of Kentucky offers the following graduate fellowships and scholarships for the encouragement of research and advanced study:

The Margaret Voorhies Haggin Trust Fellowships and Scholarships in memory of her father, George Voorhies.

Two fellowships with a stipend of $500.00 each.
Ten fellowships with a stipend of $400.00 each.
Fifteen scholarships with a stipend of $200.00 each.
One Registrar's fellowship with a stipend of $500.00.

The primary object of these appointments is to stimulate research and not to give pecuniary aid. Scholars and fellows are expected to devote their entire time to graduate work, and no teaching or other departmental work may be required of them. The award is paid in ten equal monthly installments and does not include a remission of tuition or other University fees. The appointments are made for one year only but may be renewed if it can be shown that the prosecution of research should continue.

These fellowships and scholarships are open to students who hold a bachelor's degree from any college or university in good standing, provided that student has shown some special aptitude for the line of work he desires to pursue. No student should apply for the award who does not cherish a real and earnest desire to do research work.

Forms for making application may be secured from the Dean of the Graduate School and must be submitted not later than March 25.

GRADUATE ASSISTANTSHIPS IN THE RESIDENCE HALLS FOR WOMEN

There are available five graduate assistantships in the residence halls for women for which the compensation is room and board in the halls. These assistants aid the regular staff in the supervision of the halls and in the varied program which the halls maintain for residents. Information and application may be obtained from the Director of Residence Halls for Women. Applications must be submitted not later than July 1

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 of 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, M. A., Ph. D., Director

The Summer Session consists of two terms of five weeks each. A comprehensive selection of courses is offered on both the undergraduate and graduate levels in all colleges and all departments of the University. The entire plant, including laboratories, libraries, and buildings, is available for summer use.

The tuition fee for each college, with the exception of the College of Law, is $22.75 a term where a load of more than three hours is carried. Students registering for three hours or less will be charged $5 per credit hour.

In the College of Law the fee is $27.50 a term. Students registering for two hours or less will be charged $9 per credit hour.

The normal load for a student is six semester hours per term, but where the standing is 2 (average of "B") or better, a student may make thirteen semester hours in the two terms. Three full summers are equivalent to one year's residence work for either graduate or undergraduate degrees.

The Summer Session also stresses the extra-curricular side of the student's life. Social activities consisting of teas, receptions, dances, band concerts, picnics, convocations and various entertainments are an integral part of the summer schedule.

The graduate program has had a phenomenal growth since 1932; in fact, the enrolment has approximately doubled in that time. An increasing number of graduate students are making application for the Ph. D. degree.

The Summer Session is planned for teachers, school administrators and supervisors, coaches, librarians, county agents, and students majoring in law, engineering, commerce, and agriculture.

Rooms in the women's residence halls range in price per term from $11.75 to $15, while rooms in the men's halls range in price from $10 to $12.50 per term. Any double room or suite in the men's halls may be had by a single occupant for $15 or $18.75 a term, respectively. Meals are served at the University Cafeteria during the Summer Session at very reasonable prices.

The University of Kentucky is following the policy during the Summer Session of bringing nationally known authorities in various fields to the campus as a part of its teaching staff, in addition to its regular faculty. By this means it is possible for persons interested in specialized training in Kentucky to come in contact with some of the greatest authorities in the various fields, without having to leave the state and attend other institutions at a much greater cost.

Students desiring bulletins or other information about the Summer Session should write the Director of the Summer Session.

DEPARTMENT OF UNIVERSITY EXTENSION

LOUIS CLIFTON, M. A., Director

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 may feel free to call upon the University for any assistance which the institution can render. To that end, the Department of University Extension has been organized. Citizens anywhere in the state should feel free to call on the University through this department for any service which it might be practicable for it to perform off the campus.

The Department of University Extension operates through six bureaus as follows:

1. A Bureau of Correspondence and Class Study.—Offering courses in Botany, Economics, Education, English, French, German, Greek, Latin, Hygiene, Mathematics, Mining, Philosophy, 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' meetings, commencement addresses, memorial and dedication exercises, civic and women's clubs, etc.
3. A Bureau of School Relations.—Providing assistance in debating and other forensics activities to the schools, and encouragement of vocal and instrumental music. This service is given chiefly through the Kentucky High School Forensic League and the Kentucky High School Music Festival. The Kentucky High School Achievement Tests and the Kentucky High School Tennis Tournament are administered by this bureau.
4. A Bureau of General Information and Welfare.—Acting as a clearing house for inquiries of the people of the state in general matters.
5. A Bureau of Club and Community Service.—Furnishing club programs and package library materials as well as helps for organizations and individuals.
6. A Bureau of Visual Aids.—Furnishing educational motion picture films and other visual aids service to schools and clubs.

Separate bulletins for each of these bureaus are available.

PART III

STATEMENT OF COURSES OFFERED AT THE UNIVERSITY

STATEMENT OF COURSES

Courses on the following pages have been arranged alphabetically by colleges and departments as follows:

Course	Page
College of Arts and Sciences	129
Anatomy and Physiology	129
Ancient Languages and Literatures	
Greek	135
Latin	133
Anthropology and Archaeology	136
Art	137
Bacteriology	140
Botany	144
Chemistry	147
Economics (See Commerce, p. 291)	151
English Language and Literature	152
English Literature	153
Language and Rhetoric	152
Public Speaking	159
Geography	160
Geology	160
German Language and Literature	165
History	167
Hygiene and Public Health	173
Journalism	175
Library Science	179
Mathematics and Astronomy	182
Astronomy	185
Mathematics	182
Medical Technology (See Bacteriology)	
Military Science	186
Music	189
Philosophy	194
Physical Education	196
Physics	202
Political Science	206
Psychology	212
Romance Languages and Literatures	217
French	218
Italian	221
Spanish	220
Social Work	221
Sociology	224
Zoology	226

Course	Page
College of Agriculture and Home Economics	229
Agricultural Entomology	229
Agricultural Extension	230
Agronomy	230
Animal Industry	232
Animal Pathology	236
Farm Economics	236
Farm Engineering	239
Forestry (See Horticulture)	
Home Economics	243
Horticulture	240
Markets and Rural Finance	241
Rural Sociology (See Farm Economics)	
Student Assemblies	229
College of Engineering	248
Civil, Architectural, and Sanitary Engineering	248
Architectural Engineering	248
Civil Engineering	248
Sanitary Engineering	252
Electrical Engineering	254
Engineering—General	257
Applied Mechanics	257
Engineering Administration	258
Engineering Drawing	259
Student Assemblies	260
Mechanical Engineering	260
Metallurgical and Mining Engineering	264
Metallurgical Engineering	264
Mining Engineering	267
College of Law	270
College of Education	273
Agricultural Education	273
Business Education	274
Distributive Occupations	275
Educational Administration	275
Educational Psychology	278
Elementary Education	279
History of Education	281
Home Economics Education	282
Industrial Education	283
Music Education	285
Philosophy of Education	285
Secondary Education	287
Vocational Education	290
College of Commerce	291

Courses open to freshmen and sophomores are numbered from 1 to 99 inclusive; courses numbered from 100 to 199 inclusive are open to upper division and graduate students; courses numbered 200 and above are open only to graduate students. The first half of a year's course is indicated by the letter a; the second half by the letter b. Seminar courses and independent or individual work courses in which more than two semester's work may be assigned, are indicated by letters a, b, c, d, etc.

In the statement of courses the number of the course is given first, followed by the descriptive title. The credit in semester hours is indicated by a number in parentheses, thus (3); the first semester is indicated by I, the second by II, and the summer session by S. Thus, Education 210, Special Problems in School Administration (3) I, II, S, is a graduate course giving three credits and offered in both semesters and the summer session.

COLLEGE OF ARTS AND SCIENCES

ANATOMY AND PHYSIOLOGY

Professor Allen, Assistant Professor Driver, Mr. Smith, Mr. Shepherd and Mr. Kirk

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 degrees 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 for 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.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years**

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Biological Sciences during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: A. & P. 1a, b; Zoology 1a, b; Physics 1a, b; Chemistry 1a, b. **Required:** A minimum of 14 credits of advanced work in Anatomy and Physiology plus Seminar in A. & P. (116a, b) and passing a comprehensive examination in senior year.

1a GENERAL PHYSIOLOGY. (3) I, S Allen and Driver
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.**

1b GENERAL PHYSIOLOGY. (3) II, S Allen and Driver
The course is a continuation of 1a. The vascular system, respiration, gastro-intestional 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 available for credit to students who have A. & P. 5. **Not open to freshmen.**

3 PHYSIOLOGY. (4) I Driver and Kirk
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; Chemistry 7.**

4 ELEMENTARY ANATOMY. (3) I Allen and Shepherd
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. **Prerequisite: Sophomore standing.**

5 PHYSIOLOGY. (3) II Allen and Shepherd
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. Not available for credit to students who have had A. & P. 1b. **Prerequisite: A. & P. 4.**

6 GENERAL ANATOMY AND PHYSIOLOGY FOR NURSES. (4) I Driver and Shepherd
The subject is designed to meet the requirements of those who are in training, and includes a general survey of the following: Physico-chemical phenomena of protoplasm; general structure of the body; osteology; myology; the nervous system and special senses; the vascular system; respiratory system; gastro-intestinal tract; digestion and absorption of foods; organs of excretion; heat production and the regulation of the body's temperature; and the reproductive system. Lectures and recitations, three hours a week; laboratory, two hours a week. **Prerequisite or concurrent: Gen. Chem.**

Courses open only to Upper Division and Graduate Students

103a-d INDEPENDENT WORK IN ANATOMY. (3) I, II Allen and Driver
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 offered 1940-41; offered 1941-42. **Prerequisites: A. & P. 1a and 1b or the equivalent.**

104a-d INDEPENDENT WORK IN PHYSIOLOGY. (3) I, II Allen and Driver
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. Offered 1940-41; not offered 1941-42. **Prerequisites: A. & P. 1a and 1b or equivalent; Chemistry 1a and 1b.**

105 ARCHITECTURE OF THE HUMAN SKELETON. (4) I, S Allen and Kirk

This 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. Given 1940-41; offered 1941-42. **Prerequisite: Junior standing.**

106 INTRODUCTION TO ENDOCRINOLOGY. (3) I, S Allen

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 interest. Lectures and recitations, three hours a week. Given 1940-41; offered 1941-42. **Prerequisites: A. & P. 1a and 1b or the equivalent; Zoology 7b; Chemistry 1a and 1b; and the instructor's consent.**

107 ADVANCED ANATOMY. (4) II Allen and Smith

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. Given 1940-41; not offered 1941-42. **Prerequisites: A. & P. 1a and 1b or the equivalent.**

108a ADVANCED PHYSIOLOGY. (4) I Allen, Driver and Smith

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 1940-41; offered 1941-42. **Prerequisite: A. & P. 1a and 1b; Chemistry 1a and 1b; Physics 1a and 1b.**

108b ADVANCED PHYSIOLOGY. (4) II Allen, Driver and Smith
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 production of speech. Lectures and recitations, two hours a week; laboratory, four hours a week. Given 1940-41; offered 1941-42. **Prerequisite: A. & P. 108a.**

109 APPLICATION OF PHYSICAL PRINCIPLES TO THE HUMAN BODY. (3) II, S Driver and Smith
This course is especially designed for students 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. Given 1940-41; offered 1941-42. **Prerequisites: A. & P. 1a and 1b; Physics 1a and 1b; Chemistry 1a and 1b.**

116a SEMINAR IN ANATOMY AND PHYSIOLOGY. (1) I Staff
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. **Prerequisites: A. & P. 1a and 1b or the equivalent.**

116b-d SEMINAR IN ANATOMY AND PHYSIOLOGY. (1 each) II Staff
Continuation of 116a. One two-hour discussion period a week. Open only to Seniors and Graduates. **Prerequisites: A. & P. 1a and 1b or the equivalent.**

Courses open only to Graduate Students

201a RESEARCH IN PHYSIOLOGY. (5) I Allen and Driver
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 1940-41; offered 1941-42. **Prerequisites: A. & P. 1a and 1b or the equivalent; Chemistry 127a and 127b or the equivalent; Physical Chemistry desirable; Physics, one year.**

201b RESEARCH IN PHYSIOLOGY. (5) II Allen and Driver
Continuation of 201a. Conferences and laboratory, ten hours a week. Given 1940-41; offered 1941-42. **Prerequisites: A. & P. 1a and 1b or the equivalent; Chemistry 127a and 127b or the equivalent; Physical Chemistry desirable; Physics, one year.**

Suggestive Course for Major in Anatomy and Physiology

JUNIOR YEAR†

First Semester	Credits	Second Semester	Credits
Soc. Sci. Hist., Pol. Sci., Sociology, or Ec. Hist.	3.	Soc. Sci. (Continued in the Department elected in first semester)	3.
Psych. 2a Gen. Psychology	3.	Psych. 2b Gen. Psychology	3.
Chem. 127a Organic Chem.	5.	Chem. 127b Organic Chem.	5.
Zool. 101a Histology	3.	Zool. 106 Embryology	4.
Anat. & Phys. 105 Architecture of Human Skeleton	4.	Anat. & Phys. 106 Introduction to Endocrinology	3.

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

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Anat. & Phys. 116a Seminar in A. & P. (Tutorial Course)	1.	Anat. & Phys. 116b Seminar in A. & P. (Tutorial Course)	1.
Anat. & Phys. 108a Adv. Phys. or Anat. and Phys. 109 Application of Physical principles to the Human Body	4. or 3.	Anat. & Phys. 108b Adv. Phys. or Anat. & Phys. 107 Adv. Anat.	4. or 4.
Chem. 101 Physical Chem.	5.	Bact. 52 Prin. of Bacteriology	4.
Eng. 3a Hist. of Eng. Lit.	3.	Eng. 3b Hist. of Eng. Lit.	3.
Elective Modern Lang., social subject, or Botany	3.	Elective (Continue subject elected in first semester)	3.
		Hyg. 1 Personal and Community Health	1.

ANCIENT LANGUAGES AND LITERATURES

Professor Jones and Assistant

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years**

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Literature, Philosophy and the Arts during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: First two years of college Latin. **Required:** A minimum of 15 credits of advanced work in A. L.; Tutorial Work; comprehensive examination in senior year.

Note.—No credit given when work done in High School is repeated. One year of High School language is considered the equivalent of one semester of University work.

Latin

***1 BEGINNING LATIN. (3) I** Jones
Declensions, vocabulary, conjugations, rules of syntax, special attention to English words derived from Latin.

*2 **CAESAR AND SELECTIONS.** (3) II — Jones
The equivalent of four books of Caesar. **Prerequisite: Latin 1.**

*3 **CICERO AND SELECTIONS.** (3) I — Jones
The equivalent of five orations of Cicero. **Prerequisite: Latin 2.**

*4 **VIRGIL.** (3) II — Jones
(Books I, II, IV, VI of the Æneid.) **Prerequisite: Latin 2 or 3.**

*5 **LIVY.** (3) I — Jones
(Book I and Selections.) **Prerequisite: Latin 3 or 4.**

*6 **HORACE.** (3) II — Jones
(Odes and Selected Satires.) **Prerequisite: Latin 4 or 5.**

7 **TACITUS.** (3) I — Jones
(Germania, Agricola, Selections.) **Prerequisite: Latin 5 or 6.**

8 **PLINY'S LETTERS.** (3) II — Jones
(Selections.) Terence (One Play). **Prerequisite: Latin 5 or 6.**

Courses open only to Upper Division and Graduate Students

16a **TUTORIAL WORK IN ANCIENT LANGUAGES.** (1) I — Jones

16b **TUTORIAL WORK IN ANCIENT LANGUAGES.** (1) II — Jones

109a **LATIN LITERATURE.** (3) I — Jones
(Selections from various authors.) Given each year. **Prerequisite: Latin 7 or 8.**

109b **LATIN LITERATURE.** (3) II — Jones
(Continuation of 109a.) Given each year. **Prerequisite: Latin 7 or 8.**

110a **LATIN LITERATURE.** (3) I — Jones
Given each year. **Prerequisite: Latin 7 or 8.**

110b **LATIN LITERATURE.** (3) II — Jones
(Continuation of 110a.) Given each year. **Prerequisite: Latin 7 or 8.**

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.** (1) I — Jones
The course will begin with easy passages in connected discourses and will proceed to more difficult selections. Given each year. **Prerequisite: Latin 5.**

114b **ADVANCED LATIN COMPOSITION.** (1) II — Jones
(Continuation of 114a.) Given each year. **Prerequisite: Latin 5.**

115a **LATIN COMPOSITION.** (1) II — Jones
(Continuation of 114b.) Not given 1940-41; offered 1941-42. **Prerequisite: Latin 5.**

115b **LATIN COMPOSITION.** (1) II — Jones
(Continuation of 115a.) Not given 1940-41; offered 1941-42. **Prerequisite: Latin 5.**

120 **SURVEY OF GREEK CIVILIZATION.** (3) I — Jones
History, Public and Private Life, Archaeology. Not given 1940-41; offered 1941-42. **Prerequisite: Junior standing.**

---

* Courses open to freshmen.

121 SURVEY OF ROMAN CIVILIZATION. (3) I Jones
(Continuation of 120.) Given 1940-41; not offered 1941-42. **Prerequisite: Junior standing.**

150a TEACHER'S COURSE IN LATIN. (3) S Jones
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. Based on first year's work. **Prerequisite: Junior standing.**

150b TEACHER'S COURSE IN LATIN. (3) S Jones
This course will follow closely the recommendations 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. Based on second year work. **Prerequisite; Latin 2 or 150a.**

151a-b INDEPENDENT WORK IN LATIN. (3) Jones
These courses are courses in individual work. The work assigned will depend upon the needs of the student. **Prerequisite: A. L. 5.**

"Two-Hundred" courses open to Graduate Students only

201a LATIN PASTORAL POETRY. (3) II Jones
Latin Pastoral Poetry. This course is based mainly on Vergil's Eclogues and Georgics. The development of the author's talent will be noted and his models traced. In addition, one or two dramas will be read, or selections from Lucretius. Given on demand. **Prerequisite: Latin 109a or equivalent.**

201b LATIN ELEGIAC POETRY. (3) II Jones
Latin Elegiac Poetry. Selections from Catullus, Tibullus, Propertius and Ovid will be read. The change in the subject matter of the Elegy will be noted. Scanning. Mythological references studied. Given on demand. **Prerequisite: Latin 109a or equivalent.**

Greek

51 BEGINNING GREEK. (3) I Jones
Declensions, conjugations, vocabulary, rules of syntax, English derivations. Given each year. **Prerequisite: Freshman standing.**

Courses open only to Upper Division and Graduate Students

122a GREEK LITERATURE IN ENGLISH TRANSLATION (3) II Jones
Epic and Lyric Poetry. Given 1940-41; not offered 1941-42. **Prerequisite: Junior standing.**

122b GREEK LITERATURE IN ENGLISH TRANSLATION. (3) II Jones
Drama, Oratory, Philosophy. Not given 1940-41; offered 1941-42. **Prerequisite: Junior standing.**

149 EASY SELECTED READINGS FROM GREEK AUTHORS. (3) II Jones
Given each year. **Prerequisite: Greek 51.**

152 ANABASIS. (3) I Jones
Given on demand. **Prerequisite: Greek 51.**

153 HOMER. SELECTIONS. (3) II Jones
The Iliad, books I-VI. The Homeric question, life in the Homeric age, Mycenean antiquities, recent discoveries, will receive due attention. Scanning. Given on demand. **Prerequisite: Greek 149.**

154 PLATO. SELECTIONS. (3) I Jones
The Apology and Crito, selections from the Phaedo. The relation of Plato to Socrates, Socrates as a moral teacher, his methods of investigation will be discussed. Given on demand. **Prerequisite: Greek 149.**

155 HERODOTUS. SELECTIONS. (3) II Jones
Books VI-VII. This course will include a rapid survey of Greek history from the Ionic Revolt to the end of the Persian Wars. Given on demand. **Prerequisite: Greek 149.**

ANTHROPOLOGY AND ARCHAEOLOGY

Professors Webb and Funkhouser and Assistant Professor Haag

Courses open only to Upper Division and Graduate Students

101 PRINCIPLES OF ANTHROPOLOGY. (2) I Funkhouser
Lectures, 3 hours. (Given every year.)

102 KENTUCKY ARCHAEOLOGY. (2) II Haag
Lectures, 3 hours. (Offered 1941-42.)

103a-d INDEPENDENT WORK IN ANTHROPOLOGY AND ARCHAEOLOGY. (3) Webb and Haag
(Given every year.)

105 ETHNOLOGY. (2) II Funkhouser
A lecture course on the Living Races of Man. The supposed origin and known migrations of the present ethnological groups; their relationships, geographical distribution, cultures and religion. Lectures, 3 hours. (Offered 1941-42.)

106 ETHNOLOGY OF EUROPE. (2) II Funkhouser
A study of the origins and migrations of the ethnological groups of Europe. The influence of Hamitic, Ligurian, Iberian and Pelasgian stocks of prehistoric civilizations; the effect of the migration of the Indo-Iranian Division; the contribution of the Semites to early European cultures; the contrast between the Aryans and Nordics in racial characters with particular attention given to the Q-Kelts, P-Kelts, Slavs and Anglo-Saxons. Lectures, 3 hours. (Offered (1941-42.)

110a-c FIELD WORK IN ARCHAEOLOGY. (3) Haag
This course is designed for students specializing in Archaeology and wishing to attain a knowledge of the laboratory practice conducted in the field. It would probably be given only in the summer to a very limited number of students. It may be that a student would wish to accompany field parties for more than one summer. For that reason we have used the subscripts, a, b, c. (Given 1940-41.)

115 NORTH AMERICAN ARCHAEOLOGY. (3) I Haag
A study of the origin and growth of prehistoric American Indian cultures north of Mexico as revealed by archaeological data. Lectures and recitations three hours per week with selected readings for paper preparation. (Given 1940-41.)

ART

Professor Rannells and Assistant Professors Fisk, Callihan, and Barnhart

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years**

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Literature, Philosophy and the Arts during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: 10 credits in Drawing, Introduction to Art, History of Art. **Required:** 21 credits minimum—9 to 12 credits in studio courses, 9 to 12 credits in History of Art courses, and 2 credits in Senior Seminar; comprehensive examination in senior year. Majors in Art are expected to acquire a reading knowledge of French or German for use in the senior year.

*30a **INTRODUCTION TO ART.** (2) I, II — Callihan
Principles, Lectures, notebooks, problems in design. Not eligible for credit to students who have had Art 10a.

*30b **INTRODUCTION TO ART.** (2) I, II — Callihan
The plastic arts. Lectures, notebooks, reports.

60a **SEMINAR IN ART.** (1) I — Staff
Open to senior major students only.

60b **SEMINAR IN ART.** (1) II — Staff
Open to senior major students only.

Drawing and Painting

*61a **DRAWING.** (3) I, II, S — Barnhart
The study of line and form in pencil, and charcoal mediums. Six studio hours and weekly problems.

*61b **DRAWING.** (3) I, II, S — Barnhart
Continuation of 61a. Six studio hours and weekly problems.

63a **INTERMEDIATE DRAWING.** (3) I, II, S — Fisk
Problems in analysis and construction of form. Value drawing in monochrome. Nine studio hours a week. **Prerequisite: 61b.**

63b **INTERMEDIATE DRAWING.** (3) I, II, S — Fisk
Continuation of 63a. Nine studio hours a week.

65a **PAINTING.** (3) I, II, S — Fisk
Still life and outdoor painting in oil and water color mediums. Composition problems. Nine studio hours a week. **Prerequisite: 63b.**

65b **PAINTING.** (3) I, II, S — Fisk
Continuation of 65a. Nine studio hours a week.

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

115a-d **INDEPENDENT WORK.** (3) I, II — Staff
Individual problems in painting or design; individual research in art history. Each semester's work subject to review by the staff. Open only to advanced students upon approval of department head. Offered 1941-42.

---

* Courses open to freshmen

116a PRINT MAKING. (4) I, II Fisk
Study of print processes. Choice of media: etching, lithography, etc. Eight studio hours and weekly problems. Open only to advanced students upon approval of instructor. Offered 1941-42.

116b PRINT MAKING. (4) I, II Fisk
Continuation of 116a. Eight studio hours and weekly problems. Open only to advanced students upon approval of instructor. Offered 1941-42.

165a INTERMEDIATE PAINTING. (3) I, II Fisk
Still life, landscape and portrait painting problems. Nine studio hours a week. **Prerequisite: 55b (or 65b).** Offered 1941-42.

165b INTERMEDIATE PAINTING. (3) I, II Fisk
Continuation of 165a. Nine studio hours a week. Offered 1941-42.

167a ADVANCED PAINTING. (5) I, II Fisk
Study of professional requirements in picture making. Composition problems and fifteen studio hours a week. Open to advanced students, usually graduates, upon approval of instructor. Given 1940-41.

167b ADVANCED PAINTING. (5) I, II Fisk
Continuation of 167a. Composition problems and fifteen studio hours a week. Given 1940-41.

Design

64a INTERMEDIATE DESIGN. (3) I, II Barnhart and Callihan
Designing objects of use. Consideration of materials and processes in designing for execution in textiles, ceramics, wood, metal, glass, pigments, etc.; and the planning of ensembles employing these objects and materials. Individual problems. Six studio hours per week. **Prerequisites: 61a and 30b.**

64b INTERMEDIATE DESIGN. (3) I, II Barnhart and Callihan
Continuation of 64a. Six studio hours per week.

29 ADVERTISING ART. (2) I, II Barnhart
Art principles in advertising; weekly problems in layout design. Four studio hours a week. **Prerequisites: 61a and 30a or Junior standing in Journalism or Commerce.**

68a GRAPHIC DESIGN. (3) I, II Barnhart
Design in relation to advertising, publications and general commercial needs; also its application to campus problems. A course for Art, Journalism, and Commerce majors interested in creating finished layout. Nine studio hours per week. **Prerequisites: 29 and 61a-b or 61a and 30a.**

Note.—This will provide a specific course for a specialized type of work heretofore given as one phase of Art 64a-b, Intermediate Design. It deals with concrete problems, most of them on the University campus, and has already proved its helpfulness. It would seem advisable therefore to set up a separate course for it so that students may know from the catalog that this work is actually being offered.

68b GRAPHIC DESIGN. (3) I, II Barnhart
Continuation of 68a. Nine studio hours per week.

History and Appreciation of Art

23a DECORATIVE ARTS OF THE EIGHTEENTH CENTURY IN ENGLAND. (2) I Callihan
English interiors, furniture, textiles, ceramics, etc. Lecture and weekly problems.

35 HISTORY OF ANCIENT ART. (3) I Rannells
Lectures, conferences and reports.

36 HISTORY OF MEDIEVAL ART. (3) II Rannells
Lectures, conferences and reports.

44a APPRECIATION OF PRINTS. (1) II Fisk
This course will undertake a systematic examination of print processes—etching, engraving, wood cut, lithography, etc.—Through practical demonstrations of methods used, study from originals and reproductions in the collections of the department; comparative study of styles through lectures with lantern slides and reference to available literature on the subject. Lecture and weekly problems.

44b APPRECIATION OF PRINTS. (1) I Fisk
Woodcuts, wood engravings, lithographs. Lecture and weekly problems.

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

137 HISTORY OF RENAISSANCE ART IN ITALY. (3) II Rannells
Lectures, conferences and reports. Given 1940-41; offered 1941-42.

138 HISTORY OF RENAISSANCE ART IN THE NORTH. (3) I Rannells
Flemish, German and French art. Lectures and reports. Given 1939-40; offered 1941-42.

139a HISTORY OF MODERN ART. (3) I Rannells
Seventeenth and eighteenth centuries. Lectures and reports. Offered 1941-42.

139b HISTORY OF MODERN ART. (3) II Rannells
Nineteenth and twentieth centuries. Lectures and reports. Offered 1941-42.

147 ART IN AMERICA. (3) I, S Rannells
A critical and historical examinations of the arts in America. Architecture, sculpture, painting, illustration and handicrafts from colonial times to the present. Illustrated lectures, reports. Given summer, 1941; offered 1941-42. Not open to students who have credit in Art 22, 41 or 42.

151a CRITICISM OF ART. (3) I Rannells
Analyses, interpretations, evaluations. Specific arts, periods of art, styles of art, are examined in the light of philosophical and historical modes of art criticism. Lectures, discussions, reports. For advanced students only. **Prerequisites: Two years studio work in Art, two years History of Art.** Given 1940-41.

151b CRITICISM OF ART. (3) II Rannells
Continuation of 151a. Lectures, discussions, reports. Given 1940-41.

157 ART IN SECONDARY SCHOOLS. (3) S Rannells
The study of art for teachers in secondary schools; problems of definition and interpretation; evaluation of visual training; the correlation of art with other subjects. Sources for art; original works, facsimile reproductions, art literature, etc. Lectures, conferences, reports. Given summer 1941.

Public School Art

10a PUBLIC SCHOOL ART. (2) I, II, S Rannells
A study of essential disciplines in art; definitions, initial concepts, principles; techniques, elementary skills through practice in design, drawing, lettering. Forms of art: analysis and interpretation on an elementary level. Bibliographies, teaching materials. For students in elementary education. Lectures, four studio hours and weekly problems. Not eligible for credit to students who have had Art 30a.

10b PUBLIC SCHOOL ART. (2) I, II, S Haines
Application of essential art disciplines to classroom activities in preparation for teaching art in the elementary grades. Units in art: design, color, drawing, lettering, etc. Units in collaboration with other studies; posters, charts, programs, etc.; exploration of materials, tools, processes. Bibliographies, teaching materials. For students in elementary education. **Prerequisite: 10a.** Lectures, four studio hours and weekly problems.

Note.—Other courses such as Art Appreciation (17), Decorative Arts of the 18th century in England (23a-b), Composition (112a-b), History of Architecture (145a-b), and individual work in Illustration, Industrial Design, Interior Decorating, Mural Painting, documentation of Art in Kentucky, are given from time to time. "Independent work" courses (115a-d) provide for the advanced student of special interests and abilities—generally those seeking help on self-planned problems.

BACTERIOLOGY

Professors Scherago, Weaver and Maxwell, and Dr. Klein
Miss Titsworth, Mrs. Smith, Mr. McFadden, Mr. Kass,
Miss Starks, Mr. Cherry, Miss Gottron, Miss
Schreiber, Miss Hutchison, Mr. Ross, and
Mr. Reynolds

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. (See p. 51.) The course in Medical Technology is a prescribed course throughout 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.

The University of Kentucky, through the Department of Bacteriology, is registered as an approved school for the training

of clinical laboratory technicians by the Board of Registry of the American Society of Clinical Pathologists and by the Council on Medical Education and Hospitals of the American Medical Association.

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 by those taking the premedical course. Courses 2a and 2b are recommended for students desiring to major in bacteriology and for those taking bacteriology to fulfill the biological science group requirement.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years**

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Biological Sciences during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: Chemistry 1a, b; Bact. 2b or 52 and 104.

Required: Two credits in Seminar and minimum of 13 additional credits of advanced work in Bacteriology, including Bact. 125.

*2a **ELEMENTARY MICROBIOLOGY. (4) I, II** Weaver and Hutchison

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 science requirement, and should be followed by 2b. **No prerequisites.** Lectures and recitations, two hours; laboratory, four hours a week.

*2b **ELEMENTARY MICROBIOLOGY. (4) I, II** Weaver and McFadden

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.**

*6 **BACTERIOLOGY FOR NURSES. (4) I, II** Scherago and Klein

A study of the characteristics and habits of microorganisms and of their relation to medicine, surgery, and public health. Lecture, two hours a week; laboratory, four hours a week.

52 **PRINCIPLES OF BACTERIOLOGY. (4) I, II**
Scherago, Klein, Kass, and Gottron

An alternative course for students who do not have the prerequisites for 102. Lectures and recitations two hours; laboratory, four hours a week. **Prerequisite or concurrent: Chem. 1b.**

* Courses open to freshmen.

56 BACTERIOLOGY OF FOODS. (For Sophomores.)
(4) I, S Weaver and Cherry
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 recitations, two hours; laboratory, four hours a week. **Prerequisites: Bacteriology 102 or 52; or 2b and Chemistry 1b.**

57 BACTERIOLOGY OF WATER AND SEWAGE.
(For Sophomores.) **(4) II, S** Weaver and Cherry
Microflora of water; importance of colon-typhoid group in water; standard methods of water analysis and interpretation of results; water purification; 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 2b and Chemistry 1b.**

Courses open only to Upper Division and Graduate Students

102 GENERAL BACTERIOLOGY. (4) I, II, S Scherago
Observation and cultivation of bacteria and related microorganisms; study of their morphology, classification, physiology, relation to certain fermentations, to food, to soil fertility and to disease. Lectures and recitations, two hours; laboratory, four hours a week. **Prerequisite: Chemistry 1b.**

103 PATHOGENIC BACTERIOLOGY. (4) I, S Scherago and Klein
A study of human and animal pathogenic microorganisms, especially their morphological, cultural and pathogenic properties. Lectures and recitations, two hours; laboratory, four hours a week. **Prerequisites: Bacteriology 102 or 52; or 2b and Chemistry 1b.**

104 APPLIED BACTERIOLOGY. (2) I, II, S Weaver
A course in bacteriological analysis to supplement Courses 52 and 102. Laboratory four hours a week. **Prerequisites: Bacteriology 102 or 52; or 2b and Chemistry 1b.**

110a LABORATORY DIAGNOSIS. (3) I, S Scherago, Klein and Starks
Laboratory methods employed in diagnostic and public health laboratories. Designed primarily for students interested in medical technology. Examination of sputum, urine and blood. Laboratory, six hours a week. Prerequisite: Preceded or accompanied by **Bacteriology 103.**

110b LABORATORY DIAGNOSIS. (3) II, S Scherago, Klein and Starks
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 110a.**

111 GENERAL PATHOLOGY. (4) I Maxwell, Scherago, Klein
The effect of disease on the organs and tissues of the human body. Fresh and museum specimens as well as histological sections will be examined. Degenerations, infiltrations, regenerations, inflammations, disturbances of the circulation, infectious granulomata, nepolasms, etc., will be studied. Lectures and recitations, two

hours; laboratory, four hours a week. **Prerequisites: Anatomy and Physiology 1a-b; Zoology 7b, 101b, and 106; Bacteriology 103, and consent of head of department.**

115a-d INDIVIDUAL WORK. (3) I, II, S
Scherago, Weaver, Maxwell, Klein

Students will be assigned special problems in laboratory work and reference reading. Laboratory, six hours a week. **Prerequisite: Any Bacteriology course above 102.**

120a HOSPITAL LABORATORY PRACTICE. (4) I, II
Maxwell, Titsworth and Smith

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 110a and b; consent of head of department.**

120b HOSPITAL LABORATORY PRACTICE. (6) I, II
Maxwell, Titsworth and Smith

Continuation of 120a. Laboratory, eighteen hours a week. **Prerequisites: Bacteriology 110a and b; consent of head of department.**

125 IMMUNOLOGY AND SEROLOGY. (5) II, S
Scherago, Klein and Kass

The theories and mechanism of infection and immunity; the preparation, standardization and uses of vaccines, toxins, antibodies and other biological products related to the diagnosis, prevention, and treatment of specific infectious diseases; agglutination, precipitation, complement fixation etc.; receptor analysis; hypersensitiveness. Lectures and recitations, two hours a week; laboratory, six hours a week. **Prerequisite: Bacteriology 103.**

150a-d SEMINAR. (1) I, II Staff

Review of current literature in bacteriology; presentation of papers on work in progress in the department or on assigned topics; reports on meetings of national bacteriological societies. Required of all seniors. Two hours a week.

The following courses open to Graduate Students only

201a-d RESEARCH IN BACTERIOLOGY. (5) I, II, S
Scherago, Weaver, Maxwell, Klein

Laboratory, ten hours a week.

203a PUBLIC HEALTH BACTERIOLOGY. (3) S Scherago and Klein

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. Lectures and recitations, one hour; laboratory, four hours a week. **Prerequisites: Open only to Physicians and Health Officers or those with equivalent training.**

203b PUBLIC HEALTH BACTERIOLOGY. (3) S Scherago and Klein

Continuation of Course 203a. Lectures and recitation, one hour; laboratory, four hours a week. **Prerequisite: Bacteriology 203a.**

206 BACTERIOLOGY OF FOODS. (4) I, S Weaver, Cherry
Microbiology of milk and milk products, eggs, tomato products, meat and meat products, food preservation; bacterial food poisoning. Lectures and recitations, two hours a week; laboratory, four hours a week. **Prerequisite: Bacteriology 2b, or 52, or 102; Chemistry 8.**

207 BACTERIOLOGY OF WATER AND SEWAGE. (4) II, S
Weaver, Cherry
The microflora of water; importance of the colon-typoid group of bacteria in water; methods of water analysis and interpretation of results; special media used in isolating and identifying the colon-typhoid group of bacteria; methods of water purification; microflora of sewage; methods of sewage analysis; methods of sewage disposal; bacteriological study of swimming pools, methods of analysis; effect of treatment on bacteriological content, regulations concerning swimming pools. Water purification plants, sewage disposal plants and swimming pools will be visited and studied. Lectures and recitations, two hours a week; laboratory, four hours a week. **Prerequisites: Bacteriology 2b, or 52, or 102; Chemistry 8.**

250a-d SEMINAR. (1) I, II Staff
Review of current literature in bacteriology; presentation of papers on work in progress in the department or on assigned topics; reports on meetings of national bacteriological societies. Required of all graduates students. Two hours a week.

BOTANY

Professor McFarland, Associate Professor McInteer, Mr. Shacklette, Mr. Rogers and Miss James

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Biological Sciences during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: Botany 1a, b. **Required:** A minimum of 20 credits of advanced work in Botany, and passing a comprehensive examination in the senior year.

***1a GENERAL BOTANY. (4) I**
McFarland, McInteer, Shacklette, Assistants
This introductory course to plant life deals with a brief history of botany, a detailed study of the cell, its structure and functions and its relation to other cells. A comparative study is made of the various types of Thallophytes and Bryophytes, including structure, reproduction and classification.

***1b GENERAL BOTANY. (4) II**
McFarland, McInteer, Shacklette, Assistants
This is a continuation of Botany 1a in which the Pteridophytes (Ferns) and Spermatophytes (Seed Plants) are studied. Emphasis is placed on structure, method of reproduction and life histories of the various plants studied. The last six to eight weeks of this semester, the students will be given some work concerning plant heredity and instruction in the use of a manual in identifying unknown flowering plants. **Prerequisite: Botany 1a.**

* Courses open to freshmen.

6 PLANT HISTOLOGY. (3) II McFarland
A laboratory course dealing with the principles of killing, fixing, imbedding, sectioning, staining, mounting and the study of the different kinds of tissue involved. Finished slides of at least fifty kinds of tissue will be required of each student. **Prerequisites: Botany 1a, 1b.** Offered 1941-42.

15 LOCAL FLORA (SYSTEMATIC BOTANY). (3) I
McFarland, Shacklette
A laboratory course dealing with the identification of unknown flowers and ferns. The use of manuals and methods of making an herbarium 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 1a, 1b. Given 1940-41; offered 1941-42.

19 DENDROLOGY. (2) I OR II McFarland
This is primarily a field course in which the student is taught the fundamental principles of identification of trees, as well as how to recognize the various trees by their leaf, bark and bud characters. Both summer and winter condition of trees will be studied. **Prerequisites: Botany 1a, 1b.** Not offered 1941-42.

Courses open only to Upper Division and Graduate Students

103 PLANT PHYSIOLOGY. (4) II McInteer
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. **Prerequisites: Botany 1a, 1b.** Given 1940-41; offered 1941-42.

106a SPECIAL PROBLEM. (3) I McFarland, McInteer
This course is designed to give students who have acquired at least 18 advanced credits in botany an opportunity to take up independently, some problem assigned by the instructor in charge. The problem assigned will depend upon the qualifications and fitness of the student. **Prerequisites: Advanced Botany courses, 18 hours.** Given 1940-41; offered 1941-42.

106b SPECIAL PROBLEM. (3) II McFarland, McInteer
A continuation of Course 106a. Given 1940-41; offered 1941-42.

106c SPECIAL PROBLEM. (3) I OR II McFarland, McInteer
A continuation of Course 106b. Offered 1941-42

106d SPECIAL PROBLEM. (3) I OR II McFarland, McInteer
A continuation of Course 106c. Offered 1941-42

107 MORPHOLOGY OF ALGAE. (3) I McInteer
A laboratory course dealing with representative algae with regard to structure, reproduction and their general classification. Prerequisites: Botany 1a, 1b. Given 1940-41; offered 1942-43.

114 ECOLOGY. (3) I McInteer
This course gives the student a chance to study the relationships existing between plants and their various environments, both plant and animal associates. Frequent half-day and two all-day field trips are required of students taking this course. Since this course deals mainly with plants, students should have had Botany 15 before signing for this course. Prerequisites: Botany 1a, 1b. Given 1940-41; offered 1941-42.

115a-b SEMINAR. (1) I, II McFarland, McInteer, Shacklette

This course is designed to prepare seniors for their comprehensive examinations and will consist of assigned readings and reports on current literature. Also studies will be made into the new developments in methods and equipment in the field of Botany. Stress will be laid upon research methods. Class will meet one hour per week. Given 1940-41; offered 1941-42.

125a MORPHOLOGY OF THE FUNGI. (4) I McFarland

A comprehensive study is made of many typical forms of the Myxomycetes, Phycomycetes and a few of the Ascomycetes. Their structure, method of reproduction and classification are studied in detail. **Prerequisites: Botany 1a, 1b.** Given 1940-41; offered 1941-42.

125b MORPHOLOGY OF THE FUNGI. (4) II McFarland

This is a continuation of Course 125a. The balance of the fungi groups are taken up and a study is made as in the previous semester. The Ascomycetes and Basidiomycetes are studied as well as the Fungi Imperfecti. **Prerequisite: Botany 125a.** Given 1940-41; not offered 1941-42, but offered 1942-43.

126a MYCOLOGY. (3) I McFarland

In this course the student spends the entire time in identifying unknown species of fungi. Considerable time is spent in the field collecting and learning the habitats of the various fungi. Opportunity is given to make use of the standard works on identification of fungi. **Prerequisites: Botany 125a, 125b.**

126b MYCOLOGY. (3) II McFarland

A continuation of Course 126a.

150a ADVANCED SYSTEMATIC BOTANY. (3) I
McFarland, McInteer, Shacklette

In this course the student is expected to identify many more species of plants than given in Botany 15. It is expected that each student study critically some group of flowering plants. **Prerequisites: Botany 15, 107, 125a, 125b.**

150b ADVANCED SYSTEMATIC BOTANY. (3) II
McFarland, McInteer, Shacklette

This is a continuation of Course 150a.

Courses open only to Graduate Students

206a RESEARCH IN MORPHOLOGY. (5) I McFarland, McInteer

Students prepared for independent work will be assigned to investigations in anatomy, histology, or special morphology.

206b RESEARCH IN MORPHOLOGY. (5) II McFarland, McInteer

A continuation of course 206a.

207a RESEARCH IN MYCOLOGY. (5) I McFarland

Those desiring to carry on investigations in mycology should have had Botany 101 and 102 or their equivalent. Suitable work will be suggested to students desiring to enter this field.

207b RESEARCH IN MYCOLOGY. (5) II McFarland

A continuation of course 207a.

210a RESEARCH IN PLANT PHYSIOLOGY. (5) I McInteer
This work is open only to students expecting to take advanced degree with their major in the Department of Botany. The student will be encouraged to develop initiative and independence. Assignment to investigations will be made with due regard to the previous preparation along physical and chemical lines.

210b RESEARCH IN PLANT PHYSIOLOGY. (5) II McInteer
A continuation of course 210a.

213a RESEARCH IN SYSTEMATIC BOTANY. (5) I
McFarland and Shacklette
Students who desire to work in systematic botany will be assigned to work on some definite group.

213b RESEARCH IN SYSTEMATIC BOTANY. (5) II
McFarland and Shacklette
A continuation of course 213a.

CHEMISTRY

Professors Maxson, Barkenbus and Bedford, Associate Professor Stewart, Assistant Professors Mitchell and Baker, and Dr. Gabbard, Dr. Krewson, Mr. Dunn, Mr. Rose and Mr. Waters

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 throughout and leads to the degree of Bachelor of Science in Industrial Chemistry. (See p. 53.)

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Physical Sciences during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: Junior standing; Chemistry 1a, 1b, 4, 8.

Required: Chemistry 109 or 130a, b or 103; 127a, b and either 101 or 131a and b.

***1a GENERAL INORGANIC CHEMISTRY. (5) I, II** Mitchell and others
Chemistry of the non-metallic elements, and the metals. Lecture, 1 hour; recitations, 2 hours; laboratory, 4 hours.

***1b GENERAL INORGANIC CHEMISTRY. (5) I, II** Mitchell and others
Continuation of 1a. Lecture, 1 hour; recitation, 2 hours; laboratory, 4 hours. **Prerequisite: Chemistry 1a.**

***2a GENERAL INORGANIC CHEMISTRY FOR ENGINEERS. (4) I** Mitchell and others
Lecture, 1 hour; recitation, 1 hour; laboratory, 4 hours.

* Courses open to freshmen.

*2b **GENERAL INORGANIC CHEMISTRY FOR ENGINEERS. (4) II** Mitchell and others
Lecture, 1 hour; recitation, 1 hour; laboratory, 4 hours. **Prerequisite: Chemistry 2a.**

4 **QUALITATIVE ANALYSIS. (4) I, II** Maxson
Lecture, 1 hour; laboratory, 6 hours. **Prerequisite: Chemistry 1b.**

6 **QUALITATIVE ANALYSIS FOR MINING AND METALLURGICAL ENGINEERS. (4) I, II** Maxson
Lecture, 1 hour; laboratory, 6 hours. **Prerequisite: Chemistry 2b.**

7 **ORGANIC CHEMISTRY. (4) I, II** Baker
An elementary course for non-professional students. Recitations, 3 hours; laboratory, 2 hours. **Prerequisite: Chemistry 1b.**

8 **QUANTITATIVE ANALYSIS. (5) I, II** Stewart
A laboratory course accompanied by lectures and classroom exercises. Gravimetric and volumetric methods of analysis are studied in detail. Recitation, 1 hour; laboratory, 8 hours. **Prerequisite: Chemistry 4 or 6.**

20a **ORGANIC CHEMISTRY. (5) I** Barkenbus and Baker
Lecture, 3 hours; laboratory, 4 hours. **Prerequisite: Chemistry 1b.**

20b **ORGANIC CHEMISTRY. (5) II** Barkenbus and Baker
Continuation of 20a. **Prerequisite: Chemistry 20a.**

49a **CHEMISTRY FOR NURSES. (2) I, II**
This course deals with those general principles of chemistry, inorganic, organic and physiological, which give the necessary foundation for practical work in nutrition, materia medica and other subjects more or less dependent on a basis of chemical training. Lecture, 1 hour; recitation, 1 hour; laboratory, 1 hour.

Not open to Lower Division Students

101 **PHYSICAL CHEMISTRY. (5) I** Bedford
For students in Agriculture and the Biological Sciences. Lectures and recitations, 3 hours; laboratory, 4 hours. Given yearly. **Prerequisites: Chemistry 7, 8; Physics 1b; Mathematics 17.**

102 **ELECTRO CHEMISTRY. (5) I, II** Bedford
Elementary electro-analysis, electroplating and preparation of some inorganic and organic substances by electrolysis. Laboratory, 10 hours. Offered upon request. **Prerequisites: Chemistry 101 or 131b, 109, 127b.**

103 **QUALITATIVE ORGANIC ANALYSIS. (5) I, II** Baker
A systematic study of the separation and identification of organic compounds. Laboratory 10 hours. **Prerequisite: Chemistry 127b.**

104 **ADVANCED SYNTHETIC INORGANIC CHEMISTRY. (5) I, II** Maxson
A course planned to aid the student in gaining a more adequate knowledge of practical inorganic chemistry. Elective. Laboratory, 10 hours. Offered upon request. **Prerequisite or concurrent: Chem. 150.**

106 **ADVANCED ORGANIC CHEMISTRY. (5) I, II** Barkenbus
A critical comparison of preparation methods accompanied by laboratory work and reports. Elective. Laboratory, 10 hours. Offered on request. **Prerequisite: Chemistry 127b.**

---

* Courses open to freshmen.

107 SELECTED PROBLEMS IN QUANTITATIVE ANALYSIS. (5) I, II Stewart

Laboratory, 10 hours. Offered upon request. **Prerequisite: Chemistry 109.**

109 QUANTITATIVE ANALYSIS. (5) I, II Stewart

Recitation, 1 hour; laboratory, 8 hours. **Prerequisite: Chemistry 8.**

110 INTERMEDIATE COURSE IN PHYSICAL CHEMISTRY. (3) I, II Bedford

Intermediate course. Lectures, 3 hours. Offered upon request. **Prerequisites. Chemistry 131b.**

111 INTERMEDIATE COURSE IN PHYSICAL CHEMISTRY. (2) I, II Bedford

Intermediate course. Laboratory, 4 hours. Offered upon request. **Prerequisite or concurrent: Chem. 110**

114 ADVANCED QUANTITATIVE ANALYSIS. (5) I, II Stewart

The analysis of iron, steel and related metallurgical products. Recitation, 1 hour; laboratory, 8 hours. Offered upon request. **Prerequisite: Chemistry 109.**

118 WATER ANALYSIS. (2) I Stewart

In this course waters are examined to determine their suitability for domestic and other purposes. Laboratory, 4 hours. Given yearly. **Prerequisite: Chemistry 109.**

119a INDUSTRIAL CHEMISTRY. (2) I, II Maxson

In this course the chemistry of manufacturing processes is studied in detail, and when possible, manufacturing establishments are visited. Lecture, 2 hours. Given yearly. **Prerequisite: Chemistry 131b.**

119b INDUSTRIAL CHEMISTRY. (2) I, II Maxson

A continuation of 119a. Lecture, 2 hours. Given yearly. **Prerequisite: Chemistry 131b.**

122a JOURNAL CLUB. (1) I, II Maxson

Training in the use of chemical literature and special reports on typical research publications. Given yearly. **Prerequisite: Chemistry 131b.**

122b JOURNAL CLUB. (1) I, II Maxson

Continuation of 122a. **Prerequisite: Chemistry 131b.**

127a ORGANIC CHEMISTRY. (5) I Barkenbus and Baker

A systematic study of organic compounds. Lectures, 3 hours; laboratory, 4 hours. **Prerequisite: Chemistry 1b.**

127b ORGANIC CHEMISTRY. (5) II Barkenbus and Baker

A continuation of 127a. Lectures, 3 hours; laboratory, 4 hours. **Prerequisite: Chemistry 127a.**

129 FOOD CHEMISTRY AND ANALYSIS. (5) I Stewart

The composition, adulteration, and preservation of food. Laboratory practice on the analysis of milk, sugar, baking powder, vinegar, alcoholic beverages, fats, etc. Lectures and recitation, 1 hour; laboratory, 8 hours. **Prerequisites: Chemistry 7, or 127a, 8.** Offered upon request.

130a PHYSIOLOGICAL CHEMISTRY. (5) I Barkenbus
A study of the chemistry of living processes. Lectures, 2 hours; laboratory, 6 hours. Offered upon request. **Prerequisites: Chemistry 8, 127b.**

130b PHYSIOLOGICAL CHEMISTRY. (5) II Barkenbus
Continuation of Chemistry 130a. Lectures, 2 hours; laboratory, 6 hours. Offered upon request. **Prerequisite: Chemistry 130a.**

131a PHYSICAL CHEMISTRY. (4) I Bedford
Lectures and recitations covering the gaseous, liquid and solid states of matter; phase rule; theory of solutions. Laboratory studies in physical chemistry measurements. Thermo-chemistry; chemical equilibria and kinetics; application of law of mass action to electrolytes; electro-chemistry. Lectures and recitations, 3 hours; laboratory 2 hours. **Prerequisites: Chemistry 8; Math. 20a; Physics 3a or concurrent.**

131b PHYSICAL CHEMISTRY. (5) II Bedford
A continuation of 131a. Lectures and recitations, 3 hours; laboratory, 4 hours. **Prerequisite: Chemistry 131a.**

140 INDUSTRIAL STOICHIOMETRY. (3) II Bedford
Chemical calculations of manufacturing processes, e. g. fuels and combustion, gas producers, lime and cement, furnace and kiln design, crystallization, etc. Recitations, 3 hours. Given yearly. **Prerequisite: Chemistry 119a.**

150 ADVANCED INORGANIC CHEMISTRY. (4) II Maxson
Primarily for students specializing in chemistry. Recitations, 2 hours; laboratory, 4 hours. Given yearly. **Prerequisite: Chemistry 101 or 131a.**

151 CHEMISTRY OF VITAMINS FOR HEALTH OFFICERS. (1) S Barkenbus
Two hours lecture per week for 8 weeks, for Health Officers only. Not offered 1941.

Courses open only to Graduate Students

201 SYNTHETIC INORGANIC CHEMISTRY. (5) I, II Maxson
Practice and research in inorganic synthesis, with the use of original literature. Laboratory, 10 hours. Offered upon request.

202 QUANTITATIVE ANALYSIS. (5) I, II Stewart
Research. Laboratory, 10 hours. Offered upon request.

204a ORGANIC CHEMISTRY. (5) I, II Barkenbus
Laboratory, 10 hours. **Prerequisite: Chemistry 106 or 103.** Offered upon request.

204b ORGANIC CHEMISTRY. (5) I, II Barkenbus
A continuation of 204a. Laboratory, 10 hours. **Prerequisite: Chemistry 204a.** Offered upon request.

205a ADVANCED PHYSICAL CHEMISTRY. (2) I, II Bedford
Offered upon request. **Prerequisite: Chemistry 110.**

205b ADVANCED PHYSICAL CHEMISTRY. (2) I, II Bedford
Continuation of 205a. **Prerequisite: Chemistry 205a.** Offered upon request.

206a **ADVANCED PHYSICAL CHEMISTRY. (3) I, II** Bedford
Laboratory course on selected topics, in advanced physical or electro-chemistry. Laboratory, 6 hours. Offered upon request. **Prerequisite or concurrent: Chemistry 205a.**

206b **ADVANCED PHYSICAL CHEMISTRY. (3) I, II** Bedford
Continuation of Chemistry 206a. Laboratory, 6 hours. Offered upon request. **Prerequisite or concurrent: Chemistry 205b.**

207a **SYSTEMATIC INORGANIC CHEMISTRY. (2) I OR II** Maxson
Lectures and conferences, 2 hours. **Prerequisite: Chemistry 131b or** its equivalent. Not offered 1941-42.

207b **SYSTEMATIC INORGANIC CHEMISTRY. (2) I OR II** Maxson
Continuation of Chemistry 207a. Lectures and conferences, 2 hours. Not offered 1941-42.

210a-d **SEMINAR. (1) I, II** Staff
Reports and discussions on recent research and current literature. Required of all Graduate Students. Given yearly.

ECONOMICS

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years**

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Social Studies during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: Six credits in Economics, including Economics 1. **Required:** A minimum of 17 credits of advanced work in Economics, including course 9, if not taken as a prerequisite, and Economics 102 or 130, 104 or 124, and 105; the remainder of credits to be selected from the Arts and Sciences list of Economics courses numbered above 100. In addition tutorial courses 16a, b must be taken in the senior year to prepare for the required comprehensive examination.

Requirements in Field of Concentration in the College of Arts and Sciences. Forty credits of advanced work in the Field of Social Studies, including the major work.

List of Courses. The courses that may be used to satisfy the above requirements are listed and described under Commerce, p, 291, and include the following: 1—Principles of Economics;* 2—Economic History of Europe;* 3—Economic History of the United States; 7a—Principles of Accounting; 7b—Principles of Accounting;* 8—Economic Geography; 9—Forms of Business Organization;* 12—Economic Geography of the Western Hemisphere; 15—Applied Economics; 16a—Tutorial Work in Economics; 16b—Tutorial Work in Economics; 102—Labor Problems; 103—Transportation; 104—Public Finance; 105—Money and Banking; 107—Statistical Methods; 110—Business Cycles; 115—Value and Distribution Theory; 121—Economic Geography of the Eastern Hemisphere; 124—State and

* Courses open to freshmen.

Local Taxation; 125—Evolution of Economic Institutions; 126—Economics of Public Utilities; 127—International Economic Policies; 130—Labor Legislation; 134—Advanced Economic History of the United States; 142—Index Numbers; 147—American Business Leaders; 148—European Business Leaders; 152—Income and Wealth; 153—The Economics of Consumption.

ENGLISH LANGUAGE AND LITERATURE

Professors Dantzler, Farquhar, Knight and Brady; Associate Professors Fowler and Gallaway; Assistant Professors Sutherland and Yates; Instructors Mrs. Smith, Mr. Ward, Mr. Cutler, Mr. Clark, Mr. Gieger, Mr. Adams; Graduate Assistants Mr. Boyd, Miss Eggemeyer, Mr. Godfrey, Mr. Irvine, Mr. Wilkins

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years**

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Literature, Philosophy and the Arts during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: English 1a, b, 3a, b. **Required:** A minimum of 18 credits of advanced work in English.

English Language and Rhetoric

***1aD ENGLISH COMPOSITION. (3) I** — Staff

This course is designed especially for students in the lowest two deciles.

***1bD ENGLISH COMPOSITION. (3) II** — Staff

A continuation of English 1aD.

***1a ENGLISH COMPOSITION. (3) I, II** — Staff

Practice in writing correct and clear English. Accuracy of expression is desired rather than proficiency in style. A text book will be used, but the instruction will also be based upon the study of representative English masterpieces. Required of all freshmen.

***1b ENGLISH COMPOSITION. (3) I, II** — Staff

A continuation of English 1a.

2a ADVANCED COMPOSITION. (2) I — Knight

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 1a, 1b.**

2b THE SHORT STORY. (2) II — Knight

Primarily a course in composition, not in the history of the short story form, although such matter is introduced. Short stories are read and analyzed; one long short story is written. **Prerequisites: English 1a, 1b.**

---

* Courses open to freshmen.

*5a **OLD ENGLISH. (3) I** Dantzler
The object of this course is to introduce the student to the beginnings of English prose and poetry. The elements of Old English will be studied with reading of easy prose and poetry.

*5b **OLD ENGLISH. (3) II** Dantzler
Attention will be given to the literature and the social life of the period.

30 **BUSINESS ENGLISH. (2) I, II**
Primarily for sophomores in the College of Commerce; admission of others by consent of the instructor. A study of forms of business correspondence and practice in writing such. Offered 1941-42. **Prerequisites: English 1a, 1b.**

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

102 **HISTORY OF THE ENGLISH LANGUAGE. (3) I** Dantzler
A survey of the development of the language, based upon a text; other readings upon various phases of language development. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

125 **PRONUNCIATION OF MODERN ENGLISH. (3) II** Dantzler
A study of present day pronunciation; dialectical peculiarities. Students will become proficient in using a phonetic alphabet. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

English Literature

3a **HISTORY OF ENGLISH LITERATURE. (3) I, II** Staff
This is not a chronological survey of English literature, but a study of representative authors beginning with Chaucer and extending to contemporary writers. The selections may vary from year to year Required of English majors during the sophomore year. **Prerequisites: English 1a, 1b.**

3b **HISTORY OF ENGLISH LITERATURE. (3) I, II** Staff
A continuation of English 3a. **Prerequisites: English 1a, 1b; 3a.**

33 **ELEMENTS OF INTERPRETATIVE READING. (3) I** Geiger
This course is designed especially for those interested in speech and dramatics. Emphasis is placed upon the fundamentals of vocal expression, enunciation, pronunciation, voice and action and upon the essentials of oral interpretation of literature. Not open to freshmen. **Prerequisites: English 1a, 1b; 34a, 34b.**

*34a **DRAMATIC PRODUCTION. (2) I** Geiger
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 and to develop the instinct for self-expression. The Guignol Theatre offers opportunity for acting.

*34b **DRAMATIC PRODUCTION. (2) II** Geiger
This is a continuation of English 34a, which is not prerequisite but desirable.

---

* Courses open to freshmen.

38 ORAL INTERPRETATION. (3) II Geiger

An advanced course in study, appreciation, and oral interpretation of selected masterpieces of literature. Recommended to those who plan to teach English literature. Not open to freshmen. **Prerequisites: English 1a, 1b; 34a, 34b; 33.**

The following courses open only to Upper Division and Graduate Students

100a SENIOR REVIEW OF ENGLISH LITERATURE. (3) I Dantzler and others

An advanced course for senior majors in English; the approach will be historical; it is designed not only to give the student a knowledge of the continuity of English literature, but also to integrate ideas presented to him during his college career; it will serve as a basis for review, correlation and extension of the student's curriculum. Required of all English majors. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b;** 6 credits in advanced courses in English.

100b SENIOR REVIEW OF ENGLISH LITERATURE. (3) II

A continuation of English 100a. Required of all English majors.

103 ADVANCED OLD ENGLISH. (3) I Dantzler

This course is designed for those who wish to continue the work of English 5b. Selections from Cynewulf will be read. Lectures and papers on assigned topics. Elective for Juniors and Seniors. **Prerequisites: English 1a, 1b; 3a, 3b.** Offered 1941-42

105 CHAUCER. (3) II Dantzler

A course in Chaucer. The principal works of Chaucer will be read. Each student will prepare one lead. Offered 1941-42.

106a ENGLISH ROMANTIC POETRY. (3) I Brady

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. Not offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

106b ENGLISH ROMANTIC PROSE. (3) II Brady

This course is designed to continue the study of ideas developed in English 106a as revealed in Rousseau, Godwin, Coleridge, Hazlitt, Lamb, DeQuincey, the Gothic romance, and Scott. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

107a VICTORIAN POETS. (3) I Brady

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. Not offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

107b VICTORIAN PROSE. (3) II Brady

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.** Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

108a PRINCIPLES OF LITERARY CRITICISM. (3) I Farquhar
The course attempts to show criticism as a growth and development in an historical survey and to give a corpus of opinion about literature. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

108b PRINCIPLES OF LITERARY CRITICISM. (3) II Farquhar
A continuation of English 108a, which is not prerequisite although desirable. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

109 PRE-SHAKESPEAREAN DRAMA. (3) I Farquhar
An historical course in English dramatic origins; a study of the works of Lyly, Kyd, Greene, Peele, Jonson, and Marlowe. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

110a SHAKESPEARE—COMEDY. (3) I Farquhar
Shakespeare's comedies will be studied in detail. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

110b SHAKESPEARE—TRAGEDY. (3) II Farquhar
A continuation of English 110a, which is not prerequisite, although desirable. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

111b THE ENGLISH NOVEL AFTER SCOTT. (3) II Knight
This course 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. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

116 THE CONTEMPORARY DRAMA. (3) II Farquhar
A course designed to show the development and tendencies in Continental, British, and American dramatic literature, 1850 to 1918. Not offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b**

123a AMERICAN LITERATURE BEFORE 1860. (3) I Knight
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. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

123b AMERICAN LITERATURE AFTER 1860. (3) II Knight
A continuation of English 123a, which is not 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. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

124 THE RENAISSANCE. (3) I Dantzler
A study of the literature of the Elizabethan period exclusive of the drama. Foreign sources of the English Renaissance. The sonnet from its origin to its development in Spenser. The pastoral from Theocritus to Spenser. Utopian literature from Plato to More. Not offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

127a LITERATURE OF THE BIBLE. (3) I Farquhar
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. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

127b LITERATURE OF THE BIBLE. (3) II Farquhar
A continuation of English 127a, which is not prerequisite, although desirable. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

130a COMPARATIVE LITERATURE. (3) I Brady
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. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

130b COMPARATIVE LITERATURE. (3) II Brady
A continuation of English 130a, which is not prerequisite, although desirable. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

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

133 THE DEVELOPMENT OF AMERICAN REALISM. (3) I Knight
The course 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. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

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

145 ELIZABETHAN DRAMA, EXCLUSIVE OF SHAKESPEARE. (3) II Farquhar
A survey of English Drama as the title indicates. Especially a study of foreign drama upon Elizabethan drama. Not offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

147 AGE OF JOHNSON. (3) II Gallaway
From the death of Pope to 1798. Johnson and his circle: Burke, Goldsmith, Gray, Walpole, Cowper. The pre-romantic movement. Not offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

152 AGE OF POPE. (3) I Gallaway
Addison and Steele, Swift, Pope, and Defoe. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

153 RESTORATION—EIGHTEENTH CENTURY DRAMA. (3) II Gallaway
A study of the dramatic types that arose between the closing of the theatres in 1642 and the death of Sheridan. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

155a CONTEMPORARY ENGLISH POETRY. (3) I Farquhar
An examination of the forces which developed to create modern poetry in England and America since 1900. The course to be historical of the movements and currents in their origins and ideas and to be literary and esthetic in an appreciation of form, matter and style. Collateral reading. Not offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

155b CONTEMPORARY ENGLISH POETRY. (3) II Farquhar
A continuation of English 155a. Not offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

156 EXPRESSIVE READING. (3) S
Principles and practice of expressive reading and the oral interpretation of literature. Aimed to develop clearer insight and greater skill in reading aloud from the printed page, and in the speaking of memorized literature. Offered upon request. Primarily for the summer session.

157 TEACHING OF SPEECH AND ORAL ENGLISH. (3) S
Discussions dealing with the practical problems in teaching. Intended for teachers and prospective teachers. Offered upon request. Primarily for the summer session.

160 ACTING. (2) I Fowler
Theory and practice of the art of acting, including improvisations and characterizations. Pantomime and make-up. Theory of acting applied to individual problems and group work. Development of mood and dramatic continuity. Members of the class will be given the first consideration for performance in public. Offered 1941-42 **Prerequisites: English 1a, 1b; 34a, 34b.**

161 DIRECTING. (2) I Fowler
Practice in directing; theory of plotting a play for direction; how to guide the actor in analysis, construction, and projection. Offered 1941-42. **Prerequisites: English 1a, 1b; 34a, 34b.**

163a PLAYWRITING. (3) I Fowler
This course is designed as a practical course in the writing of plays for production. A study of the principles of dramatic composition. Members of the class will write one act plays and present them as laboratory excerises on the Guignol stage. Offered 1941-42. **Prerequisites: English 1a, 1b; 34a, 34b.**

163b PLAYWRITING. (3) II Fowler
Full length plays will be written and produced. Principles of dramatic composition will be continued. Offered 1941-42. **Prerequisites: English 1a, 1b; 34a, 34b.**

170a BACKGROUNDS OF MODERN LITERATURE. (3) I Gallaway
A study of the relations between modern philosophic, psychological, and social thought and literature. The European novel will be used as a focus for study. Naturalism, symbolism, impressionism, humanism, expressionism, stream-of-consciousness, and sur-realism will be evaluated. Mann, Proust, Romins, Yeats, Huxley, Lawrence, Joyce, and others. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

170b BACKGROUNDS OF MODERN LITERATURE. (3) II Gallaway
A continuation of English 170a. Offered 1941-42. **Prerequisites: English 1a, 1b; 3a, 3b.**

The following courses open only to Graduate Students

201a LITERARY CRITICISM. (3) I Farquhar
A course for graduate students only. Students who contemplate taking this course are strongly urged to take English 108a, 108b. Not offered 1941-42.

201b LITERARY CRITICISM. (3) I Farquhar

A continuation of English 201a. Not offered 1941-42.

202a STUDIES IN CONTEMPORARY DRAMA. (3) I Farquhar

An investigation into the dramatic mode and form of the contemporary drama. A course for graduate students only. Offered 1941-42.

202b STUDIES IN CONTEMPORARY DRAMA. (3) II Farquhar

A continuation of English 202a. Offered 1941-42.

210 SEMINAR. (3) Brady

Bibliographical studies. This course is required of all candidates for the M. A. degree. It should be taken at the beginning of graduate work. Offered 1941-42.

212a-d SEMINAR. (3) Dantzler

Studies in Philology. Studies in Old English poetry and prose—Cynewulf, Beowulf; Alfred and his circle. Middle English—Chaucer. Offered on request.

213a-d SEMINAR. (3) Gallaway

Studies in Eighteenth Century Literature. Johnson and his circle, Swift, the Romantic Revolt, or the foreign relations of English Literature in the eighteenth century will be chosen for extensive investigations according to the needs of the students in the group. Offered 1941-42.

214a-d SEMINAR. (3) Brady

Victorian Literature. Intensive studies in the social and literary significance of Arnold, Browning, Carlyle, and Ruskin. Offered on request.

215a-d SEMINAR. (3) Farquhar

Cultural Studies. These seminars seek primarily to present the problems of criticism, structural, and historical. Critical backgrounds will be stressed so that critical studies in English literature may be made. Offered on request.

216a-d SEMINAR. (3) Knight

The Critical Period in American Literature: 1890-1900. A study of the literature of the nineties, with emphasis upon the battle over realism, the loss of early national optimism, the resistance to naturalism, and the development of a genuine American literature. Special attention is given to the esthetic and social problems found in the works of Garland, Henry James, Howells, and Stephen Crane; lesser writers and the magazines of the period are also investigated. One long research paper and one or more short ones are required. Offered on request.

217a-d SEMINAR. (3) Knight

Studies in contemporary American literature. A seminar in American literature from 1914 to the present. A preliminary survey of the trends of contemporary American literature is followed by research based upon the work of one writer or one school of writers of the 1930's. One long paper and one or more short ones are required. Offered on request.

Public Speaking

***6 THE ESSENTIALS OF SPEECH. (2) I** Sutherland

This 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.

7a ELEMENTS OF PUBLIC SPEAKING. (3) I Sutherland

This course is designed to give the student experience in effective 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.

7b ELEMENTS OF PUBLIC SPEAKING. (3) II Sutherland

A continuation of English 7a, which is not prerequisite, although desirable.

10a PUBLIC SPEAKING. (2) I Sutherland

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 on the same level as in English 7a.

10b PUBLIC SPEAKING. (2) II Sutherland

A continuation of English 10a. Reading, informal discussion, and argument.

11a ARGUMENTATION AND DEBATE. (3) I Sutherland

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 of social, political, and economics phases of life.

11b ARGUMENTATION AND DEBATE. (3) II Sutherland

A continuation of English 11a, which is not prerequisite, although desirable.

12a DEBATE PRACTICE. (2) I Sutherland

The forming of a debating squad which will devote its time to preparation for the intercollegiate debates which take place in the spring. The representatives of the University in the intercollegiate debates will be chosen from this squad.

12b DEBATE PRACTICE. (2) II Sutherland

A continuation of English 12a.

14a PRINCIPLES OF DISCUSSION. (2) I Sutherland

For law students. Open to academic students who have had 7a, 7b or the equivalent.

14b PRINCIPLES OF DISCUSSION. (2) II Sutherland

A continuation of English 14a.

---

* Courses open to freshmen.

15a ORATORY. (2) I Sutherland

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.**

15b ORATORY. (2) II Sutherland

A continuation of English 15a, which is not prerequisite, although desirable. **Prerequisites: English 7a, 7b, or 10a, 10b.**

20 SPEECH TRAINING. (3) I Sutherland

This course is designed to meet the needs of high school teachers of speech. Problems of classroom and contest work in public speaking, debate, and oral interpretation will be discussed for the purposes of formal training procedure. Principally for teachers.

GEOGRAPHY

The following courses in Geography are offered in the University and are collected here for the convenience of the student.

COMMERCE 8—ECONOMIC GEOGRAPHY AND COMMERCE 12—ECONOMIC GEOGRAPHY OF WESTERN HEMISPHERE. (See Commerce, p. 271.)

GEOLOGY 24a—ELEMENTS OF GEOGRAPHY, GEOLOGY 24b—ELEMENTS OF GEOGRAPHY, AND GEOLOGY 25a—REGIONAL PHYSICAL GEOGRAPHY. (See Geology, p. 161.)

FARM ECONOMICS 116—LAND ECONOMICS. (See farm Economics. p. 236.

HISTORY 184—THE GEOGRAPHIC BASIS OF AMERICAN HISTORY. (See History, p. 167.)

GEOLOGY

Professor McFarlan, Assistant Professor Averitt, Assistant Professor and Curator Young, Assistant Professors Nelson and Freeman and Assistant in Paleonotology Haag

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in the Field Concentration: Forty credits in the Field of Physical and Biological Science, including the major work, in courses not open to freshmen.

Requirements for a Major. Prerequisites: Geology 22a, 22b. **Required:** Geology 9a, 9b, 30a, 30b, 31, 101a, 101b, 104a, 104b, 106a, 106b, 123a, 123b, 118a, or 118b and 124a, 124b. **Field Work:** An early summer field trip, Geology 118a-d, is required of major students for graduation. This covers three weeks' work in selected regions. Local field work is offered throughout 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 pass a final comprehensive examination in the department.

***3 ELEMENTARY GEOLOGY FOR AGRICULTURAL STUDENTS. (3) II** Nelson

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 conference a week.

7 ENGINEERING GEOLOGY. (2) I Nelson

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.**

9a FIELD GEOLOGY. (2) I Averitt

Topographic mapping. Six hours of field work a week. **Prerequisites: Geology 22a, b; C. E. 12.**

9b FIELD GEOLOGY. (2) II Young

An introduction to field methods involving the identification and tracing of formations, areal mapping and representation of structure by contours. **Prerequisites: Geology 22a, b; 26a, b.**

12 ELEMENTARY GEOLOGY FOR ENGINEERS. (3) II Nelson

An introduction to the principles of Geology as a background for the work in Geology 7. Two recitations and one laboratory conference a week.

***14a-d ELEMENTARY FIELD GEOLOGY. (1)**

Visits are made to localities in the vicinity of Lexington, Ky., which illustrate various geologic phenomena.

***23a ELEMENTARY FIELD WORK IN REGIONAL GEOLOGY. (2) S** McFarlan and Young

Two weeks in the field in selected areas. The course is offered as a part of the first summer session and is planned for the student with only a year's introductory geology. The party works in conjunction with that of Geology 118a. **Prerequisites: Geology 22a, 22b.**

***23b ELEMENTARY FIELD WORK IN REGIONAL GEOLOGY. (2)** McFarlan and Young

A course of the same type as 23a, but involving a different area. **Prerequisites: Geology 22a, 22b.**

***24a ELEMENTS OF GEOGRAPHY. (3) I, S** Young

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.

***24b ELEMENTS OF GEOGRAPHY. (3) I, II, S** Young

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.

25a REGIONAL PHYSICAL GEOGRAPHY. (3) II, S Young

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).**

---

* Courses open to freshmen.

***30a GENERAL GEOLOGY. (5) I**
Geological processes—a study of the forces and processes responsible for the features of the earth. Three lectures and two laboratory conferences per week. **No prerequisite.**

***30b GENERAL GEOLOGY. (5) II** McFarlan and Young
Historical geology—a study of continental evolution and the development of plant and animal life. Three lectures and two laboratory conferences per week. **Prerequisite: Geol. 30a.**

31 LABORATORY WORK IN REGIONAL HISTORICAL GEOLOGY. (2) I Young
A study of selected geological maps and specimens covering the principal geologic regions of the United States. Two laboratory conferences per week. **Prerequisites: Geology 30a-b.**

***50a OUTLINES OF GEOLOGY. (3) I** Averitt
A study of the more important and better-known geological features of the earth including mineral resources, earth history, and the fossil record. The work is preceeded by a six weeks introduction to geological principles. Three lectures per week. **No prerequisite.**

***50b OUTLINES OF GEOLOGY. (3) II** Averitt
Continuation of 50a. **Prerequisite: Geology 50a.**

The following courses open only to Upper Division and Graduate Students

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

101b PALEONTOLOGY. (3) II McFarlan
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 101a.**

104a-d ADVANCED FIELD GEOLOGY. (2) I McFarlan
A field course in geologic mapping involving problems of local structure and stratigraphy. Six hours in the field a week. **Prerequisite: Geology 9b.**

105a-d INDEPENDENT WORK IN GEOLOGY. (3)
Directed work in independent investigations. Thesis required.

106a ECONOMIC GEOLOGY. (3) I Averitt
Non-metallic mineral deposits. A study of the distribution, origin, mode of occurrence, methods of search for and uses of deposits of economic importance. Two lectures, one laboratory conference per week. **Prerequisites: Geology 15a-b.**

106b ECONOMIC GEOLOGY. (3) II Averitt
Metallic Mineral Deposits. Same as above but dealing with metalliferous deposits. The economics of various metal industries and methods of treatment of ores will be briefly considered. Two lectures, one laboratory conference per week. **Prerequisites: Geology 15a-b.**

---

* Courses open to freshmen.

109a MINERALOGY. (2) I Nelson

This course covers the same subject matter as Geology 123a but less comprehensively. It is designed primarily for students in Industrial Chemistry.

118a-d FIELD WORK IN REGIONAL GEOLOGY. (2) S McFarlan and Young

Three weeks in the field in selected areas in a study of regional geological features. The course is an effort to bring the student into contact with diverse geological phenomena and problems. It 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 26a, b.**

120a GEOLOGY OF KENTUCKY. (3) S McFarlan

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.**

120b GEOLOGY OF KENTUCKY. (3) S McFarlan

The mineral resources of the state, their distribution, origin and uses. **No prerequisite.**

122 PETROLEUM GEOLOGY. (3) II Averitt

The origin and accumulation of petroleum and natural gas. A study of geological methods used in exploratory work and in the development of known fields. The course includes a study of the stratigraphy and structure of the producing fields of the United States. **Prerequisites: Geology 26a, b and Physics 1a, b.**

123a MINERALOGY. (3) I Nelson

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 their identification. One lecture and four hours laboratory per week. **Prerequisites: Chemistry 1a-b.**

123b MINERALOGY. (3) II Nelson

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. One lecture, four hours laboratory per week. **Prerequisite: Geology 109a.**

124a REGIONAL GEOLOGY. (3) I All

A study of the geological regions of the United States. This course will serve as tutorial work in preparation for the comprehensive examination.

124b REGIONAL GEOLOGY. (3) II

A continuation of 124a.

125 METHODS OF SUBSURFACE CORRELATION. (3) II Freeman

Methods of and practice in subsurface stratigraphic work in petroleum geology. **Prerequisites: Geology 122, 123a-b.**

208 STRUCTURAL GEOLOGY. (3) I Nelson

A study of the structural features of the earth's crust with an analysis of the mechanics involved in the production of such structures. (Three lectures and recitations or two lectures and two hours of laboratory. Will vary at different times.) **Prerequisite: Physics 1a-b; Geology 30a, b, 124a-b.**

210a STRATIGRAPHIC PALEONTOLOGY. (3) I McFarlan

The course deals with the succession of Paleozoic faunas and their use for stratigraphic correlations. One lecture, two laboratory periods per week. **Prerequisite: Geology 101a, b.**

210b STRATIGRAPHIC PALEONTOLOGY. (3) II Young

A continuation of 210a dealing with Mesozoic and Cenozoic faunas. One lecture, two laboratory periods per week.

212a PETROLOGY: OPTICAL MINERALOGY. (3) I Nelson

A study of the optical properties of minerals in thin sections by means of the petrographic microscope. An introduction to the classification of the igneous rocks. One lecture and four hours of laboratory per week. **Prerequisites: Geology 123a-b; Physics 1a and 1b.**

212b SEDIMENTARY PETROLOGY. (3) II Nelson

A study of sedimentary rocks based on microscopical analysis. One lecture and four hours of laboratory per week. **Prerequisite: Geology 212a.**

217a-d SEMINAR. (1)

Suggested Courses for Geology Major

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Eng. 1a Eng. Composition	3.	Eng. 1b Eng. Composition	3.
Foreign Language	3.	Foreign Language	3.
Math. 17 College Algebra	3.	Math. 19 Plane Analytic Geom.	3.
Math. 18 Plane Trigonometry	2.	Econ. or Pol. Sci.	3.
Hyg. 1 Personal and Community Health	1.	Geol. 30a Gen. Geol.	5.
Geol. 30a Gen. Geol.	5.		

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Foreign Language	3.	Foreign Language	3.
Econ. or Pol. Sci.	3.	Civil Eng. 12 Plane Survey.	2.7
Chem. 1a Gen. Inorg. Chem.	5.	Chem. 1b Gen. Inorg. Chem.	5.
Eng. Draw. 17a	2.	Eng. Draw. 17b	2.
Geol. 9a Field Geol.	2.	Geol. 9b Field Geol.	2
		Geol. 31	2.

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Zool. 1a Gen. Zool.	4.	Zool. 1b Gen. Zool.	4.
Chem. 4 Qual. Analysis	4.	Chem. 8 Quan. Analysis	5.
Math. 20a Differential Calculus	4.	Math. 20b Integral Calculus	4.
Geol. 104a Adv. Field Geol.	2.	Geol. 104b Adv. Field Geol.	2.
Geol. 123a Mineralogy	3.	Geol. 123b Mineralogy	3.
		Geol. 118a (Summer) Field Work in Regional Geol.	2.

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Physics 1a Gen. Elem. Physics	5.	Physics 1b Gen. Elem. Physics	5.
Zool. 108a Prin. of Zool.	2.	Geol. 101b Paleontology	3.
Geol. 101a Paleontology	3.	Geol. 104d Adv. Field Geol.	2.
Geol. 104c Adv. Field Geol.	2.	Geol. 106b Econ. Geol.	3.
Geol. 106a Econ. Geol.	3.	Geol. 124b Regional Geol.	3.
Geol. 124a Regional Geol.	3.	Geol. 122 Petroleum Geol.	3.

The course as outlined does not constitute a prescribed course but is varied somewhat to fit the need of the student. It is planned however to give the necessary background for professional work. For a less professional major, courses in other fields may be substituted except for those prerequisite to required courses in Geology. For mineral resource work attention is called to courses in Mining and Metallurgy. For paleontological work take Zoology 7a, b. For Petroleum Geology attention is called to courses available in Petroleum Engineering. For later training in Geophysical methods substitute Physics 2a, b for Chem. 4 and 8.

GERMAN LANGUAGE AND LITERATURE

Professor Bigge, Assistant Professors Hegeman and Whitaker, and Miss Schoene

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

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.

Requirements for a Major. Prerequisites: Junior standing; 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 giving one credit a semester through the junior and senior years, and to pass a final comprehensive examination.

Note.—No credit given when work done in High School is repeated. One year of High School language is considered the equivalent of one semester of University language study.

No credit will be given for German 1a until German 1b has been completed. No student should enroll in two beginning languages at the same time.

*1a **ELEMENTARY GERMAN.** (3) I, II, S — Staff
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.

*1b **ELEMENTARY GERMAN.** (3) I, II, S — Staff
Continuation of German 1a, with more extended exercise in easy reading, writing and pronunciation. **Prerequisite: German 1a or one high school unit.**

2a **INTERMEDIATE GERMAN.** (3) I, II, S — Staff
Graded reader, followed by short stories from representative authors. Special sections are arranged in second year work for students of the physical and biological sciences. **Prerequisite: German 1b.**

2b **INTERMEDIATE GERMAN.** (3) I, II, S — Staff
Continuation of German 2a. Selected readings. **Prerequisite: German 2a.**

* Courses open to freshmen.

208 STRUCTURAL GEOLOGY. (3) I Nelson

A study of the structural features of the earth's crust with an analysis of the mechanics involved in the production of such structures. (Three lectures and recitations or two lectures and two hours of laboratory. Will vary at different times.) **Prerequisite: Physics 1a-b; Geology 30a, b, 124a-b.**

210a STRATIGRAPHIC PALEONTOLOGY. (3) I McFarlan

The course deals with the succession of Paleozoic faunas and their use for stratigraphic correlations. One lecture, two laboratory periods per week. **Prerequisite: Geology 101a, b.**

210b STRATIGRAPHIC PALEONTOLOGY. (3) II Young

A continuation of 210a dealing with Mesozoic and Cenozoic faunas. One lecture, two laboratory periods per week.

212a PETROLOGY: OPTICAL MINERALOGY. (3) I Nelson

A study of the optical properties of minerals in thin sections by means of the petrographic microscope. An introduction to the classification of the igneous rocks. One lecture and four hours of laboratory per week. **Prerequisites: Geology 123a-b; Physics 1a and 1b.**

212b SEDIMENTARY PETROLOGY. (3) II Nelson

A study of sedimentary rocks based on microscopical analysis. One lecture and four hours of laboratory per week. **Prerequisite: Geology 212a.**

217a-d SEMINAR. (1)

Suggested Courses for Geology Major

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Eng. 1a Eng. Composition	3.	Eng. 1b Eng. Composition	3.
Foreign Language	3.	Foreign Language	3.
Math. 17 College Algebra	3.	Math. 19 Plane Analytic Geom.	3.
Math. 18 Plane Trigonometry	2.	Econ. or Pol. Sci.	3.
Hyg. 1 Personal and Community Health	1.	Geol. 30a Gen. Geol.	5.
Geol. 30a Gen. Geol.	5.		

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Foreign Language	3.	Foreign Language	3.
Econ. or Pol. Sci.	3.	Civil Eng. 12 Plane Survey.	2.7
Chem. 1a Gen. Inorg. Chem.	5.	Chem. 1b Gen. Inorg. Chem.	5.
Eng. Draw. 17a	2.	Eng. Draw. 17b	2.
Geol. 9a Field Geol.	2.	Geol. 9b Field Geol.	2
		Geol. 31	2.

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Zool. 1a Gen. Zool.	4.	Zool. 1b Gen. Zool.	4.
Chem. 4 Qual. Analysis	4.	Chem. 8 Quan. Analysis	5.
Math. 20a Differential Calculus	4.	Math. 20b Integral Calculus	4.
Geol. 104a Adv. Field Geol.	2.	Geol. 104b Adv. Field Geol.	2.
Geol. 123a Mineralogy	3.	Geol. 123b Mineralogy	3.
		Geol. 118a (Summer) Field Work in Regional Geol.	2.

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Physics 1a Gen. Elem. Physics	5.	Physics 1b Gen. Elem. Physics	5.
Zool. 108a Prin. of Zool.	2.	Geol. 101b Paleontology	3.
Geol. 101a Paleontology	3.	Geol. 104d Adv. Field Geol.	2.
Geol. 104c Adv. Field Geol.	2.	Geol. 106b Econ. Geol.	3.
Geol. 106a Econ. Geol.	3.	Geol. 124b Regional Geol.	3.
Geol. 124a Regional Geol.	3.	Geol. 122 Petroleum Geol.	3.

The course as outlined does not constitute a prescribed course but is varied somewhat to fit the need of the student. It is planned however to give the necessary background for professional work. For a less professional major, courses in other fields may be substituted except for those prerequisite to required courses in Geology. For mineral resource work attention is called to courses in Mining and Metallurgy. For paleontological work take Zoology 7a, b. For Petroleum Geology attention is called to courses available in Petroleum Engineering. For later training in Geophysical methods substitute Physics 2a, b for Chem. 4 and 8.

GERMAN LANGUAGE AND LITERATURE

Professor Bigge, Assistant Professors Hegeman and Whitaker, and Miss Schoene

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years**

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.

Requirements for a Major. Prerequisites: Junior standing; 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 giving one credit a semester through the junior and senior years, and to pass a final comprehensive examination.

Note.—No credit given when work done in High School is repeated. One year of High School language is considered the equivalent of one semester of University language study.

No credit will be given for German 1a until German 1b has been completed. No student should enroll in two beginning languages at the same time.

*1a **ELEMENTARY GERMAN.** (3) I, II, S — Staff
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.

*1b **ELEMENTARY GERMAN.** (3) I, II, S — Staff
Continuation of German 1a, with more extended exercise in easy reading, writing and pronunciation. **Prerequisite: German 1a or one high school unit.**

2a **INTERMEDIATE GERMAN.** (3) I, II, S — Staff
Graded reader, followed by short stories from representative authors. Special sections are arranged in second year work for students of the physical and biological sciences. **Prerequisite: German 1b.**

2b **INTERMEDIATE GERMAN.** (3) I, II, S — Staff
Continuation of German 2a. Selected readings. **Prerequisite: German 2a.**

* Courses open to freshmen.

3a SELECTED READINGS. (3) I, II, S Staff
Prose and poetry from standard German authors with brief outline of German literature. **Prerequisite: German 2b.**

3b SELECTED READINGS. (3) I, II, S Bigge
Continuation of German 3a. **Prerequisite: German 2b.**

6a SCIENTIFIC GERMAN. (3) I, II, S Whitaker
This course is designed primarily for the students of the physial and biological sciences. Assignments are made in recent publications along the line of the student's special interest. This course should be preceded by the scientific sections of second-year work. **Prerequisites: 2a and 2b.**

6b SCIENTIFIC GERMAN. (3) I, II, S Whitaker
Continuation of 6a. **Prerequisite: 6a.**

10a GERMAN CONVERSATION AND COMPOSITION. (2) I, II Staff
This course is designed for students who wish to write and speak simple German. It will be conducted mainly in German. The first semester's work will be closely based upon a textbook, but in the second semester opportunity will be given for the composition of original themes.

10b GERMAN CONVERSATION AND COMPOSITION. (2) I, II Staff
Continuation of 10a. **Prerequisite: German 1b or its equivalent.**

Courses open only to Upper Division and Graduate Students

101a NINETEENTH CENTURY LITERATURE. (3) I, II, S Whitaker
Studies in German literature of the 19th Century with special emphasis on selected authors. **Prerequisite: 3b.** Given 1940-41; offered 1941-42.

101b NINETEENTH CENTURY LITERATURE. (3) I, II, S Whitaker
Continuation of Course 101a. **Prerequisite: 3b.** Given 1940-41; offered 1941-42.

102a TWENTIETH CENTURY LITERATURE. (3) Bigge
Reading discussions and reports. **Prerequsiite: 3b.** Given 1940-41; offered 1941-42.

102b TWENTIETH CENTURY LITERATURE. (3) Bigge
Continuation of Course 102a. **Prerequisite: 3b.** Given 1940-41; offered 1941-42.

103a LIFE AND WORKS OF GOETHE. (3) I, II Hegeman
This course follows the unfolding of Goethe's genius from his first lyrics through the second part of Faust. His principal literary works will be read and special attention devoted to autobiographical material, letters, and diaries. Given 1940-41; offered 1941-42.

103b LIFE AND WORKS OF GOETHE. (3) Hegeman
Continuation of Course 103a.

105a-d INDEPENDENT WORK. (3) I, II, S Staff
This course is designed for students who wish to do advanced work in German in their particular field of specialization. It is not limited to majors in the department.

110a GERMAN LITERATURE IN ENGLISH TRANSLATION. (3) I, II, S Staff

The aim of this course is to furnish students not having a reading knowledge of German with an understanding of the content and significance of German literature from the earliest records to the present. Election of this course will not count toward satisfying the University's language requirement, and it may not be elected by any student enrolled in another "100" or "200" course in this department. Not given 1940-41; offered 1941-42.

110b GERMAN LITERATURE IN ENGLISH TRANSLATION. (3) I, II, S Staff

Continuation of Course 110a.

120a-b JUNIOR TUTORIAL WORK IN GERMAN. (1) I, II Staff

130a-b SENIOR TUTORIAL WORK IN GERMAN. (1) I, II Staff

160a LITERARY LANDMARKS OF GERMAN. (3) S Bigge

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. Tours, assigned readings, quizzes, lectures and reports. Not offered 1941. **Prerequisite: German 2b.**

160b LITERARY LANDMARKS OF GERMANY. (3) S Bigge

Continuation of Course 160a. Not offered 1941.

The following courses are open only to Graduate Students

201a MIDDLE HIGH GERMAN. (3) I, II Hegeman

This is essentially a literary course with only the necessary minimum of Middle High German grammar. Selections will be read from both the epic and lyric poetry of the period, and reports will be given on assigned topics. Given 1940-41; offered 1941-42.

201b MIDDLE HIGH GERMAN. (3) I, II Hegeman

Continuation of Course 201a.

203a GERMAN LITERATURE FROM LUTHER TO LESSING. (3) I, II Bigge

This course traces the principal trends in German life and thought from the Protestant Reformation through the Age of Enlightenment, as they are reflected in the work of the chief authors. Not given 1940-41; offered 1941-42.

203b GERMAN LITERATURE FROM LUTHER TO LESSING. (3) I, II Bigge

Continuation of Course 203a.

HISTORY

Professors Tuthill, Knapp and Dupre; Associate Professor Clark; Assistant Professors Hall and Lunde; Instructor Hopkins; and Assistant Fowler.

The introductory courses—2a, 2b in British history, and 5a, 5b in American history—will aid the freshman in subsequent courses

in English and American history, law, and literatures. History 4a, 4b, also for freshmen, are recommended for a somewhat broader preparation in European civilization, culture, and commerce.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Social Studies, during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: History 2a, 2b or 4a and 4b or 5a and 5b.

Required: A minimum of 20 credits of advanced courses in History. Should include the Senior Seminar.

*1a **THE ANCIENT WORLD. (3) I, II** Dupre
History of the Ancient World to the Rise of Rome.

*1b **THE ANCIENT WORLD. (3) I, II** Dupre
A continuation of History 1a from the Rise of Rome to the Invasions of the 6th Century of Europe.

*2a **HISTORY OF THE BRITISH PEOPLE TO THE RESTORATION. (3) I, II,** Hall
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.

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

*4a **MODERN EUROPE TO THE FRENCH REVOLUTION. (3) I, II** Lunde and others
A general survey of the rise of modern states of Europe to the French Revolution, with related topics. Text. Class reports.

*4b **MODERN EUROPE SINCE THE FRENCH REVOLUTION. (3) I, II** Lunde and others
A continuation of Course 4a, treating European conditions from the French Revolution to the present. For freshmen and others offering 4a or equivalent.

*5a **HISTORY OF THE UNITED STATES TO 1860. (3) I, II** Clark, Knapp
Beginning about 1750, and tracing the principal features thereof to 1860. Designed especially to meet the requirements of elementary teachers' certificates in Kentucky.

*5b **HISTORY OF THE UNITED STATES SINCE 1860. (3) I, II** Clark, Knapp
A continuation of Course 5a, from 1860 to the present.

Not open to Freshmen

40 **HISTORY OF KENTUCKY. (2) I, II** Clark
A general survey of the chief periods of Kentucky's growth and development from 1750 to the present.

---

* Courses open to freshmen.

I. American History

Courses open only to Upper Division and Graduate students

100a THE DIPLOMACY AND FOREIGN POLICY OF THE UNITED STATES TO 1860. (3) I Dupre
A survey designed to acquaint the student with the principles of American foreign policy and their historical evolution in practice. **Prerequisite: Course 5a or equivalent.**

100b THE DIPLOMACY AND FOREIGN POLICY OF THE UNITED STATES SINCE 1860. (3) II Dupre
A continuation of Course 100a. **Prerequisite: Course 5b or equivalent.**

105 COLONIAL AMERICA. (3) Knapp
A study of the beginnings of the English colonies, 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: One year of American or European History.** Given 1940-41.

106a COLONIAL LATIN AMERICA. (2) Knapp
A survey of the founding and development of the Latin American Colonies and their struggle for independence. Given 1940-41.

106b LATIN AMERICAN REPUBLICS. (2) Knapp
This course will include a study of the political, economic and social institutions, and problems of the Latin American Republics from attainment of independence to the present. Offered 1941-42.

116a SENIOR SEMINAR. (1) I Tuthill and Staff
A course for seniors designed to present the bibliography and literature of selected fields.

116b SENIOR SEMINAR. (1) II Tuthill and Staff
A continuation of 116a.

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

147 RECENT HISTORY OF THE UNITED STATES. (3) Knapp
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.**

151a THE AMERICAN FRONTIER. (3) I Clark
A course dealing specifically with American expansion westward from the original colonies to California. This course will consider the westward movement in respect to population as well as expansion, political, economic, social and cultural development; analyze the process of national adjustments; and weigh the contributions of each succeeding period. It will consider the early west. Offered 1940-41. **Prerequisites: History 5a and 5b or equivalents.**

151b THE AMERICAN FRONTIER. (3) II Clark
A continuation of Course 151a. It will consider the Trans-Mississippi West. Offered 1940-41. **Prerequisites as for 151a.**

166a-b DIVISION AND REUNION. (3) Knapp

An intensive study of sectionalism in the United States from 1850 to 1877. The political, military, economic, industrial, and educational aspects of the period of the Civil War. Emphasis on the problems of the border States. **Prerequisite: One year of American History.**

180-a HISTORY OF THE OLD SOUTH. (3) I Clarke

A study of the colonial beginnings and expansion of southern life, economics, and society. The growth of slavery, staple agriculture, and sectional politics will constitute the major interest. The course will consider the various points of sectional development which led to the break up of the Union. The South will be interpreted in both its relationship and contrast to national development. **Prerequisite: History 5a.**

180b HISTORY OF THE NEW SOUTH. (3) Clark

The evolution of southern life and society, agrarian politics, relationships with other sections, industrial growth, and new leadership. **Prerequisite: History 180a.**

184 THE GEOGRAPHIC BASIS OF AMERICAN HISTORY. (2) Knapp

A study of the relationship of geography to history and the influence of physiography upon the settlement and growth of various regions of the Americas.

Courses in the "200" Group

These courses are for graduate students. 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) Knapp

Seminar.

206 THE CONFEDERATION OF THE U. S. (3) Knapp

247a-d SEMINAR IN RECENT UNITED STATES HISTORY. (2) Knapp

Intensive studies in the political, social, and cultural history of the United States since 1914. Different topics will be stressed in rotation.

281 AMERICAN HISTORIOGRAPHY. (2) Knapp

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, and 1 conference hour.

300a-d SEMINAR IN AMERICAN FOREIGN DIPLOMACY. (3) Dupre

315a-d HENRY CLAY (AND HIS TIMES). (3) Knapp

342 SEMINAR IN KENTUCKY HISTORY. (2) Clark
The development of Kentucky as a Western commonwealth, with emphasis on economic and political phases from the 18th century to the present, with writing of papers based upon research among documents and other source materials.

365 THE AMERICAN CIVIL WAR. (3) Knapp

366 RECONSTRUCTION. (3) Knapp
Seminar.

II. England and the British Empire
Not open to Lower Division Students

131a ENGLISH CONSTITUTIONAL HISTORY TO 1603. (3) I Hall
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. Given 1938-39. **Prerequisite: History 2a or equivalent.**

131b ENGLISH CONSTITUTIONAL HISTORY SINCE 1603. (3) II Hall
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. Given 1938-39. **Prerequisite: History 2b or equivalent.**

134 HISTORY OF CANADA. (3) II Hall
A brief survey of Canada under the French; increasing emphasis on the development of Canada under British control; evolution of the Dominion; relation with the United States and British Commonwealth of Nations. Lectures, discussions and reports. **Prerequisite: One year of College History.**

135a THE BRITISH EMPIRE (TO 1860). (3) Hall
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. Given 1938-39.

135b THE BRITISH EMPIRE (SINCE 1860). (3) Hall
A continuation of 135a. Great Britain and the growth of the Dominions and the Commonwealth since 1860. Particular attention given to the history of Canadian Dominion and the extension of the idea to other portions of the Commonwealth; their relations with the rest of the world. Given 1940-41.

138 BRITISH SOCIAL HISTORY DURING THE TUDOR PERIOD, 1485-1603. (2) Hall
A study of British life, manners, and customs in town and country. Particular emphasis will be placed upon the age of Elizabeth, with political events subordinated to social changes. Lectures, discussions, and reports. Given 1940-41. **Prerequisite: History 2a.**

III. European History
Not open to Lower Division Students

114 THE RENAISSANCE IN THE SOUTH. (3) I Tuthill
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.

115 THE RENAISSANCE IN THE NORTH. (3) II Tuthill
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.

119a THE FRENCH REVOLUTION AND NAPOLEON. (3) Tuthill
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 Napoleon. Open to juniors, seniors, and graduate students, with supplementary reading for the latter. Given 1940-41.

119b THE NINETEENTH CENTURY. (3) Tuthill
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 1940-41.

120 THE TWENTIETH CENTURY. (3) Tuthill
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; socialism, public education, invention and discoveries. Reports on current literature and assigned reading on a liberal scale.

171 THE EIGHTEENTH CENTURY IN EUROPE. (2) Lunde
A study of the benevolent despots, their times and circumstances, their significance in Modern Europe. **Prerequisite: 4a or its equivalent.**

175 THE DANUBIAN STATES. (3) I Dupre
A political economic, social, and cultural study of the nationalities and post-war states formerly a part of the Austro-Hungarian Empire; Austria, Hungary, Czechoslovakia, Jugoslavia, Roumania and Poland; and of their international relations. **Prerequisite: History 4b or equivalent.**

176 THE THIRD FRENCH REPUBLIC. (3) II Dupre
A study of the parties, politics, administration, diplomacy, economy, social movements, and general culture of France from 1870 to the present. A reading knowledge of French will be helpful to graduate students. Readings, reports, and discussions. **Prerequisite: History 4b or equivalent.**

177 GERMANY SINCE 1870. (3) Dupre
German politics, culture, colonies, and international relations under Bismarck's Germany, the Empire, the Weimar Republic, and Hitler's Germany. Readings, reports, lectures and discussions. **Prerequisite: History 4b or equivalent.**

Open only to Graduate Students

280 EUROPEAN HISTORIOGRAPHY. (2) Tuthill

320a-d ORIGINS OF THE GREAT WAR. (3) Tuthill
Seminar.

331 SEMINAR IN MODERN BRITISH HISTORY. (3) Hall

350 A, B, C, D. SEMINAR IN THE FRENCH REVOLUTION. (3) Dupre

HYGIENE AND PUBLIC HEALTH

Professor Chambers; Associate Professor Griffin, Hamilton and Heinz; Dr. Doyle and Dr. Thomas; Assistant Professor Cawood; Miss Settle, Miss Zoeller, Miss Fisher and Miss Cates.

The functions of the department are three-fold; 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 physicians of the staff to sick students in their rooms.

The department offers courses in general hygiene for students in the various colleges of the University. A full year of work is offered to graduate nurses in preparation for public health nursing positions, and finally work leading to the degree of master of science in public health is offered especially for the preparation of medical officers of health.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in the Field of Concentration: Forty credits in the field of Biological Sciences and Social Studies (Sociology, Social Work, Psychology, Political Science), including the major work, in courses not open to freshmen.

Requirements for a Major. Prerequisites: 12 credits in Biological Sciences.

Required: Bacteriology 103. A minimum of 15 credits of advanced work in Hygiene and Public Health.

*1 **PERSONAL AND COMMUNITY HEALTH.**
(1) I, II Heinz, Hamilton
Lectures and recitation. An introduction to the principles of personal and community health.

9 **HYGIENE FOR TEACHERS. (2) I, II, S** Heinz, Hamilton
The purpose of the course is to acquaint the students of education and teachers in service with the general nature of health problems in the school. Required of all students who wish to qualify for the Elementary and Secondary School Teaching Certificate.

The following courses open only to Upper Division and Graduate Students

100a **PUBLIC HEALTH. (3) I, S** Chambers, Heinz
A consideration of the cause, prevalence, transmission and control of preventable diseases. Offered 1941-42.

* Courses open to freshmen.

100b PUBLIC HEALTH. (3) II, S Chambers, Heinz
A continuation of 100a. Environmental and organization approach to disease prevention. Offered 1941-42.

104 MATERNAL AND CHILD HEALTH. (2) II, S Griffin
Problems in maternal and child health from the standpoint of the public health nurse. Offered 1941-42.

110 HEALTH EDUCATION AND HEALTH SUPERVISION OF SCHOOLS. (3) II, S Heinz
A course dealing primarily with principles of health education, health service and health protection. Intended to consider also the cooperative nature of school health work thru study of problems in the solution of which contributions are made by parents, the school and the community. Offered 1941-42.

111a-b INDEPENDENT WORK IN HYGIENE AND PUBLIC HEALTH. (3) I, II, S Staff
Offered 1941-42.

115 COMMUNICABLE DISEASES. (3) S Hamilton
A study of communicable diseases with reference to causal agents, avenues of infection and methods of prevention with special emphasis on those diseases prevalent in Kentucky. Offered 1942.

118 VITAL STATISTICS. (3) I, S Heinz
Statistics of population, deaths, births and morbidity; the collection and analysis of vital statistics. Offered 1941-42.

120a MENTAL HYGIENE. (3) I, S Ratliff
An introduction to mental hygiene including a consideration of the cause, treatment and prevention of mental disorders. Offered 1941-42. Not open to students who have credit in Psy. 124.

120b MENTAL HYGIENE. (3) II, S Ratliff
A continuation of Hygiene 120a. Students are given the opportunity to apply to concrete cases the principles and concepts developed in 120a. Offered 1941-42.

122 SCHOOL AND COMMUNITY HEALTH. (2) I, S Heinz
An appreciation of the cooperative nature of school health work through a study of problems in the solution of which contributions are made by home, school, community and organized health departments. Offered 1941-42.

124a PUBLIC HEALTH NURSING. (3) S
A general course covering the principles and practices of public health nursing. Offered 1941-42.

124b PUBLIC HEALTH NURSING. (3) II, S
Educational interpretations of public health services. A continuation of Hygiene 124a. Offered 1941-42.

125a COUNTY HEALTH PRACTICE FOR PUBLIC HEALTH NURSES. (2) S
Lectures and recitation on the purposes, development, practice and techniques of local health work. Given 1941; offered 1942.

125b-c COUNTY HEALTH PRACTICE FOR PUBLIC HEALTH NURSES. (3) I, II, S Cawood
Nursing practice in the training area under the supervision of trained personnel. Sixteen weeks taken either concurrently or following the formal courses of instruction. Offered 1941-42.

130 **DEFICIENCY DISEASES AND NUTRITION.** (2) S Gambill
Lectures and recitations. A consideration of the physiological action of the more common vitamins and hormones and the clinical and subclinical manifestation of their excess or deficiency. The public health aspects of prevalence and control are emphasized. Not given 1941; offered 1941-42.

The following courses are open only to Graduate Students and are given only in the summer school

200 **EPIDEMIOLOGY.** (3) S Chambers
The cause, transmission and control of communicable diseases. For health officers only. Given 1941; offered 1942.

203 **PUBLIC HEALTH RECORDS.** (2) S Cawood
General principles of recording, filing and utilization of public health data. Not offered 1942

204 **MATERNAL AND CHILD HEALTH.** (2) S Griffin
Lectures and conferences. The principles of prenatal, infant and child care. For health officers only. Given 1941; offered 1942.

212a **PUBLIC HEALTH ADMINISTRATION.** (3) S Mustard
The organization and administration of public health. For health officers only. Given 1941; offered 1942.

212b **PUBLIC HEALTH ADMINISTRATION.** (3) S Mustard
A continuation of 212a. Not offered 1942.

218a **VITAL STATISTICS.** (3) S Fertig
The study of the statistics of population, births, deaths, illness, etc. For health officers only. Given 1941; offered 1942.

218b **VITAL STATISTICS.** (2) S Fertig
A continuation of 218a. Offered 1942.

220 **MENTAL HYGIENE.** (2) S
Lectures and clinics considering the cause, classification, course, treatment and prevention of mental disorders.

225a **COUNTY HEALTH PRACTICE FOR HEALTH OFFICERS.** (3) S Cawood
An internship in actual county health practice. For health officers only. Offered 1942.

225b **COUNTY HEALTH PRACTICE FOR HEALTH OFFICERS.** (2) S Cawood
A critical analysis of one service of the Fayette County Health Department. For health officers only. Offered 1942.

290 **SEMINAR.** (1) S Staff
For health officers only. Offered 1942.

JOURNALISM

Professor Plummer and Assistant Professors McLaughlin, Portmann, and Tucker

The department has a library containing the latest works on journalism, leading daily and weekly newspapers, periodicals, and other publications. It is supplied with standard equipment to print and to publish a modern community newspaper and to provide high-

grade commercial job printing for the campus. In this equipment is a type laboratory for instruction in typography, make-up, and the mechanics of publishing and advertising.

Correlated with the work of this department are a committee on student publications, a campus bulletin, **The Kentucky Kernel** (student newspaper), **The Kentuckian** (student yearbook), **The Kentucky Press** (a monthly publication for the editors of the state press) and **The KHSPA News** (a publication for high school editors). These and other journalistic activities are used in laboratory work. Material written in the advanced classes is submitted for publication in local, state, and national newspapers and in periodicals.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in Field of Concentration: Forty credits in courses not open to freshmen, including the major work, in either the field of Social Studies or that of Literature, Philosophy, and the Arts, during junior and senior years.

Requirements for a Major. Prerequisites: Journalism 2a, b, and 20a, b. **Required:** Journalism 104a, b, 105, 106, 107, 108, 123, 127, and 90a, b.

The Degree of A.B. in Journalism. These sequences leading to the degree of A.B. in Journalism are outlined on pages 50–52.

Comprehensive Examinations. Majors and candidates for the degree in journalism are required to pass a final comprehensive examination at the end of the senior year.

*2a **INTRODUCTION TO JOURNALISM. (1) I** Plummer and others

A course of lectures and readings designed to introduce pre-journalism students to the opportunities in journalism and advertising, the qualifications and training implicit in journalism as a profession, and the field of journalistic publication in all of its branches.

*2b **INTRODUCTION TO JOURNALISM. (1) II** Plummer and others

A survey of leading newspapers and other publications with emphasis upon reading and analysis to acquaint pre-journalism majors with the best in American journalism. **Prerequisite: Journalism 2a.**

10a **SURVEY OF JOURNALISM. (3) I, II, S** McLaughlin

A general non-professional course covering newspaper organization and problems of interest to newspaper readers. Lectures and practice in the style of writing employed by the press. **Not open to majors in Journalism.**

10b **SURVEY OF JOURNALISM. (3) I, II, S** McLaughlin

A continuation of Journalism 10a. **Prerequisite: Journalism 10a. Not open to majors in Journalism.**

---

* Courses open to freshmen.

20a NEWS REPORTING. (3) I, II Plummer and others
Instruction and practice in news gathering, news evaluation, and news writing. Examination of the reporter's place in the newspaper organization and study of the news methods of leading American newspapers. Regular assignments for Kentucky newspapers. **Prerequisite: Journalism 2b.**

20b NEWS REPORTING. (3) I, II Plummer and others
A continuation of Journalism 20a with emphasis on specialized reporting such as society, sports, weather, and science. **Prerequisite: Journalism 20a.**

21 ETYMOLOGY. (3) I, II, S Plummer and Tucker
A study of words and their fundamental values with reference to development of a writing vocabulary.

Courses open only to Upper Division and Graduate Students

102 COMMUNITY JOURNALISM. (3) I, S Portmann
A study of the problems which confront the community weekly and the small city daily. Offered 1941-42. **Prerequisite: Journalism 20b.**

103 NEWSPAPER ADMINISTRATION. (3) II Portmann
A study of the business, circulation, advertising, and accounting divisions of the newspaper with special emphasis placed on the community newspaper. Offered 1941-42. **Prerequisite: Journalism 20b.**

104a COPYREADING, TYPOGRAPHY. (3) I Tucker and Portmann
No credit for 104a until 104b has been completed. Majors must take 104a, b in their junior year. A non-credit, 1-hour laboratory course in linotype and other printing machinery is offered by the superintendent of the printing plant to a selected group of students in 104a, b. Lecture, 1 hour; laboratory, 4 hours. Offered 1941-42. **Prerequisite: Journalism 20b.**

104b COPYREADING, TYPOGRAPHY. (3) II Portmann and Tucker
A continuation of Journalism 104a. Lecture, 1 hour; laboratory, 4 hours. Offered 1941-42. **Prerequisite: Journalism 104a.**

105 LAW OF THE PRESS. (2) I Plummer
A study of the special laws of libel, copyright, and regulatory provisions that pertain to the press. Offered 1941-42. **Prerequisite: Journalism 20b.**

106 INFLUENCE OF THE NEWSPAPER. (3) I Plummer
A course devoted to the examination of criticism of the modern press and an evaluation of the influence of the press in the twentieth century. Lectures and readings directed toward the evolution of principles for the guidance of members of the news, editorial, and business staffs of newspapers. Offered 1941-42. **Prerequisites: Journalism 20b and senior standing.**

107 EDITORIAL WRITING. (2) I, II Tucker
A study of editorials, editorial columns, and editorial pages. Publication of copy is encouraged. Offered 1941-42. **Prerequisites: Journalism 20b and senior standing.**

108 HISTORY OF JOURNALISM. (3) II Portmann
A study of the rise and development of American journalism and newspapers. Offered 1941-42. Prerequisites: **Journalism 20b and senior standing.**

110 SUPERVISION OF HIGH SCHOOL PUBLICATIONS. (3) S Portmann
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. Offered every summer. **Prerequisite: Senior standing.**

111 VERBAL CRITICISM. (3) I, II Tucker
A study of words and their synonyms with reference to developing accuracy in use of the English language in journalistic work. Offered 1941-42.

112 CRITICAL WRITING FOR THE PRESS. (3) I, II, S McLaughlin
The function of criticism in journalism. Reviewing of motion pictures, plays, concerts, and books for newspapers with emphasis upon student work in Kentucky newspapers. Offered 1941-42.

115 ADVERTISING TYPOGRAPHY AND LAYOUT. (3) I, II Portmann
A study of the principles of typographic families and illustrations and decorations that pertain to modern advertising. Practical work with merchants is included in the latter part of the course. Lecture, 2 hours; laboratory, 2 hours. Offered 1941-42. **Prerequisite; Journalism 104b.**

118 PUBLICITY FOR SCHOOLS AND SOCIAL SERVICE AGENCIES. (3) S Staff
Lectures and practice dealing with the aims and methods of writing news and special articles on the work of schools, colleges, libraries, and social service organizations. Offered 1942.

120 SEMINAR IN PUBLIC OPINION. (3) II, S Plummer
A detailed examination of techniques developed and used by the press in influencing public opinion. Specific cases studied. Latter part of course devoted to the preparation of newspaper campaigns dealing with current problems of society. Offered in summer sessions and upon request. **Prerequisite: Senior or graduate standing.**

123 FEATURE WRITING. (3) I, II Tucker
A study of the writing of feature stories for newspapers, trade journals, and other publications. Publication of copy is encouraged. Offered 1941-42. **Prerequisite: Journalism 20b.**

125 MAGAZINE ARTICLE WRITING. (3) S Plummer
Lectures, personal conferences, and practice in writing and submitting material for publication in magazines; study of the markets for this material; free-lance article writing. Offered every summer.

127 REPORTING PUBLIC AFFAIRS. (2) II Plummer
Instruction and practice in reporting the news originating in courts and other public institutions and the news of politics, finance, and labor. Lecture, 1 hour; laboratory, 2 hours. Offered 1941-42. **Prerequisites: Journalism 20b and senior standing.**

90a TUTORIAL WORK IN JOURNALISM. (1) I Staff
Open only to majors and candidates for the degree in journalism. Offered 1941-42. **Prerequisite: Senior standing.**

90b TUTORIAL WORK IN JOURNALISM. (1) II Staff
A continuation of Journalism 90a. Offered 1941-42. **Prerequisite: Journalism 90a.**

LIBRARY SCIENCE

Professor Semmons; Associate Professor Martin; Assistant Professor Wofford; Miss King, Mrs. Wood, Miss Cass and Miss Miller.

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 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.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

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.

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 Head of the Department 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.

General Courses

*25 **USE OF THE LIBRARY. (2) I, II** King, Martin, Semmons
A practical survey of library book resources, tools and services; designed to aid the college student in his study, research and recreational reading. Given 1940-41; offered 1941-42.

The following courses open only to Upper Division and Graduate Students

105 **READING GUIDANCE. (2) I, II** Wofford, Martin
A study of adolescent reading interests and problems; of the nature and content of books available to young people of the secondary school level; of the tools for book selection; and of methods which may be used by teachers to stimulate and direct the reading of young people. Books to correlate with English, social sciences, science and vocational guidance will be stressed especially. **A non-technical course designed to meet the needs of teachers.** Given 1940-41; offered 1941-42.

107 **FUNCTION AND USE OF THE LIBRARY IN THE SCHOOL. (2) I, II** Wofford
A course open to teachers and students preparing to teach, to familiarize them with the functions and use of the school library in modern schemes of education. Designed to acquaint the teacher with the variety and extent of service of the school library; methods

* Courses open to freshmen.

by which the library may be adapted to fit the teacher's needs; **reference books and services**; costs and standards for effective school library service; and administrative problems which necessitate cooperation of school administrators, teachers and school librarians. Opportunity is afforded for the development of individual projects which correlate the library with teaching. Given 1940-41; offered 1941-42.

Professional Courses

126 PLACE, FUNCTION, ADMINISTRATION OF THE LIBRARY. (3) I Wofford

A study of the place, function and administration of the library in the modern school and community and of the relationship of the library and librarian to the teachers, pupils and public. Major supplementary topics, discussed: School library planning and equipment; standards; personnel problems; relation of library to outside agencies; business management of the library including budgeting, accounting, attendance; methods of stimulating the use of books, and of handling service. **Supplemented by L.S. 144.** Assigned readings, class discussion, lectures, special reports and projects. Given 1940-41; offered 1941-42.

128 CHILDREN'S LITERATURE. (2) II Martin

A survey of the field of children's literature with a comparative study of representative types of books for children (pre-school to Junior High age). Special study of illustration and physical make-up of children's books; of editions; of children's magazines; and book reviewing periodicals, and of aids in the selection of children's books. Given 1940-41; offered 1941-42.

129a-b CATALOGING AND CLASSIFICATION. (3) I, (2) II Semmons

A study of the principles and forms of classification and cataloging as complementary devices of arranging printed material and of providing a key to its nature, location and contents; with special emphasis on their application to the effective administration of the school library and its major function—service to the reader. Practice work under supervision is required in classifying materials by the Dewey Decimal system and in making a shelf list and a dictionary card catalog by the use of the unit card. Given 1940-41; offered 1941-42.

132 LIBRARY WORK WITH CHILDREN. (2) II Martin

The effective organization and administration of library work with children especially in the elementary school. Emphasizes the equipment, selection of books, and vital services of the children's library; the assembly of special materials; reading guidance, including discussions of the librarian's part in a program of remedial reading; **story-telling** and special methods of stimulating children's reading. Given 1940-41; offered 1941-42. **Prerequisite: L.S. 126 advisable.**

133a-b REFERENCE AND BIBLIOGRAPHY. (3) I, (2) II Cass, Semmons

A study of the essential reference works, particularly those most valuable in school libraries, including dictionaries, encyclopedias, atlases, year books, periodical indexes and reference books on special subjects; of the more important subject and trade bibliographies; of government documents and vertical file material; and of the standards and methods by which such material is selected, organized and efficiently used. Given 1940-41; offered 1941-42.

138 METHODS OF TEACHING USE OF LIBRARY. (2) II Wofford

The course emphasizes effective interpretation of the function, facilities and services of the library in the modern school and community. The first half semester is devoted to a study of administrative problems to be considered in instruction in the use of the library by librarian or teacher, to examination of bibliographies of the field, and of content and teaching methods for various units as adapted to the school levels and particular groups taught. Class members prepare and present actual lessons correlated with the subject curricula of the school. Informal methods of encouraging use of the library, its tools and services, are emphasized the second half semester; especially oral and visual devices (assembly programs, radio, films . . .) and printed aids (news releases, library handbooks, exhibits . . .). Given 1940-41; offered 1941-42. **Prerequisite: L.S. 133a.**

139 FIELD WORK. (2) II Wood and Semmons

Comparable to practice teaching. Observation of service in libraries in the area and supervised practical work in all departments of the libraries of the University Training School and nearby school systems. Two periods a week of two consecutive hours; supplemented by Seminar discussions. The course is designed to give the librarian in training an appreciation of library work as a whole by affording him opportunity for wide observation, for comparison of libraries and their methods, and for actual practice. Given 1940-41; offered 1941-42. **Prerequisites: L.S. 126, 129, 133, 144, 150.**

144 LIBRARY RECORDS AND METHODS. (2) I
Wofford and Semmons

A course presenting the fundamental knowledge and techniques necessary to the development of efficient procedures for the acquisition, preparation, care, circulation and use of books and audio-visual materials in the library, with emphasis on the importance to effective library service of the application of the best business methods to these routines, and of careful interpretation of statistics and services to administrators, staff and readers. **Correlated with L.S. 126.** Assigned readings, class discussion, lectures and demonstrations, special problems and projects. Given 1940-41; offered 1941-42.

150a, b BOOK SELECTION. (3) I, (2) II Martin and Wofford

A study of principles and standards in the choice of books, periodicals, pamphlets and visual materials for library use. The course includes practical problems in the selection of books; a comparative study of the product of American publishers, editions, series, etc.; critical examination of book reviewing periodicals and aids to book selection; the writing of book notes and reviews; the reading and evaluation of typical books of biography, travel, literature, science, useful and fine arts, and social science. The second semester is devoted entirely to the study of the reading interests of young people of high school age and of the choice of books for them from the point of view of school and individual needs. Given 1940-41; offered 1941-42

154 SEMINAR. (2) II Semmons

A survey of the field of library science through a brief study of the modern library movement and its history; of library agencies and media; of outstanding personalities in the field; of standards for professional training and certification; of current economic, social

and educational problems of special interest to the school librarian. General discussion with special reports on assigned topics. Given 1940-41; offered 1941-42. **Prerequisites: L.S. 126, 129, 133a; 150a desirable.**

MATHEMATICS AND ASTRONOMY

Dean Boyd, Professors Latimer, Downing and Cohen; Associate Professors LeStourgeon, South and John; Assistant Professors Brown, and Pence; Mr. Clark, Mrs. Howard, Mr. McGee, Mr. Derthick, Mr. Hatfield, Mr. Rafferty.

Mathematics

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Physical Sciences during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: Courses 2, 17, 18, 19, 20a. **Required:** A minimum of 18 credits of advanced work in Mathematices, including one course in Algebra, one in Geometry, one in Analysis, and one in Application. Major students are required to enroll in tutorial courses during the junior and senior years and to pass a final comprehensive examination in Mathematics.

Requirements for Graduate Work. Graduate students must have had at least 12 credits beyond elementary calculus before counting work toward an advanced degree.

*2 **SOLID GEOMETRY. (3) I, II** Staff
For those who have not had the subject in high school it is a prerequisite for analytics.

*3 **PLANE TRIGONOMETRY. (3) I, II** Staff
For majors and selected Engineering students. **Prerequisite: 1½ units High School Algebra.**

*5 **COLLEGE ALGEBRA. (5) I, II** Staff
A course for those who enter with only 1 unit of high school algebra **Prerequisite: 1 unit High School Algebra.**

15 **MATHEMATICS OF FINANCE. (3) I, II** Staff
Primarily for Commerce students. **Prerequisite: Math. and Ast. 5 or 17.**

*17 **COLLEGE ALGEBRA. (3) I, II** Staff
Begins with a review of quadratic equations and includes simultaneous quadratics, variations, permutations and combinations, theory of equations, etc. **Prerequisite: 1½ units High School Algebra.**

*18 **PLANE TRIGONOMETRY. (2) I, II** Staff
A brief course emphasizing solutions of right and oblique triangles. **Prerequisite: 1½ units High School Algebra.**

---

* Courses open to freshmen.

*19 **PLANE ANALYTIC GEOMETRY.** (3) I, II — Staff
A brief course, including some elementary calculus. **Prerequisites: Math. and Ast. 5 or 17, 18.**

20a **DIFFERENTIAL CALCULUS.** (4) I, II — Staff
The course covers parts of analytics, differential calculus and an introduction to the integral. **Prerequisite: Math. and Ast. 19.**

20b **INTEGRAL CALCULUS.** (4) I, II — Staff
Completing the course in elementary calculus. An introduction to solid analytics will be included. **Prerequisites: Math. and Ast. 20a, 2.**

11 **SPHERICAL TRIGONOMETRY.** (1) II — Downing
Primarily for Civil Engineers. Two hours a week, second half of semester. **Prerequisite: Math. and Ast. 18.**

12 **LEAST SQUARES.** (1) II — Downing
Primarily for Civil Engineers. Two hours a week, first half of semester. **Prerequisite: Math. and Ast. 19.**

16a-d **TUTORIAL WORK IN MATHEMATICS.** (1) I, II — Senior Staff
Open only to A. & S. majors in mathematics.

*24 **ELEMENTARY THEORY OF STATISTICS.** (2) I, II — South
Formulas and methods for arithmetic mean, geometric mean, median, standard deviation, skewness and linear correlation coefficient will be derived, with emphasis upon the assumptions made and limitations in their use. Some elementary theory of probability will be introduced for use in the study of normal distributions, interpretation of standard deviation and probable error of an observation. **Prerequisite: 1½ units of High School Algebra.**

Courses open only to Upper Division and Graduate Students

102 **VECTOR ANALYSIS.** (3) I — John
An elementary course in the algebra and calculus of vectors with numerous applications to geometry and physics. Offered 1941-42. **Prerequisite: Math. and Ast. 20b.**

103 **THEORY OF EQUATIONS.** (3) II — Pence
This course is based on Dickson's First Course in the Theory of Equations, which is used as a text. Offered 1941-42. **Prerequisite: Math. and Ast. 20a.**

105a **DIFFERENTIAL EQUATIONS.** (3) I — Downing
A first course in differential equations based on A. Cohen's text. Given 1940-41; offered 1941-42. **Prerequisite: Math. and Ast. 20b.**

105b **DIFFERENTIAL EQUATIONS.** (3) II — John
Continuation of 105a with emphasis on partial differential equations, with applications. Given 1940-41. **Prerequisite: Math. and Ast. 105a.**

106a **ADVANCED CALCULUS.** (3) I — Cohen
Limits and infinite series. Continuous functions. The definite integral and derivative. Application to power series and Fourier series. Offered 1941-42. **Prerequisite: Math. and Ast. 20b.**

* Courses open to freshmen.

106b ADVANCED CALCULUS. (3) II Cohen
Continuation of 106a. Functions of several variables. Partial differentiation. Multiple integrals. Green's theorem. Maxima and minima. Offered 1941-42. **Prerequisite: Math. and Ast. 106a or consent of instructor.**

107 PROJECTIVE GEOMETRY. (3) I Brown
A brief course in synthetic projective geometry. Given 1940-41. **Prerequisite: Math. and Ast. 20a.**

110a-f INDEPENDENT WORK IN MATHEMATICS. (3) I, II Senior Staff
Limited to upper division and graduate students of high standing. Given 1940-41; offered 1941-42. **Prerequisite: Math. and Ast. 20b.**

112 SERIES. (3) I Cohen
The theory of convergence for sequences and infinite series. Uniform convergence. Application to power series and Fourier series. Multiplication of series. Introduction to summation of divergence series. Given 1940-41. **Prerequisite: Math. and Ast. 20b.**

118 SOLID ANALYTIC GEOMETRY. (3) I LeStourgeon
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. Given 1940-41. **Prerequisite: Math. and Ast. 20b.**

119 MODERN GEOMETRY. (3) I Boyd
A course covering the ground substantially as presented in Allschiller-Court's text. Offered 1941-42. **Prerequisite: Math. 20a.**

120 MATHEMATICAL STATISTICS. (3) II South
Topics considered: Averages, coefficients of dispersion and skewness, graphical representation, Bernoulli's Theorem, curve-fitting, theory of sampling, correlation, and regression lines. Given 1940-41. **Prerequisite: Math. and Ast. 20a.**

122 ACTUARIAL MATHEMATICS. (3) II South
Theory and construction of mortality tables, life annuities, premiums, terminal values, etc. Offered 1941-42. **Prerequisites: Math. and Ast. 15 and 20a.**

124 ELEMENTARY THEORY OF STATISTICS. (2) I, II South
This course is designed for students in departments other than Mathematics. The content will be similar to that of Mathematics 24, except that extra work will be required for graduate credit. Credit will not be given for both Mathematics 24 and 124. Given 1940-41; offered 1941-42.

130 INTEGRAL EQUATIONS. (3) II LeStourgeon
Systems of ordinary linear equations. Linear operators. Orthogonal systems. Linear integral equations of the second kind. Theorems of Fredholm. Volterra's equations. Systems of linear equations in infinitely many variables. Given 1940-41.

Courses open only to Graduate Students

201a GEOMETRIC TRANSFORMATIONS. (3) I Boyd
A course covering briefly linear and quadratic transformations. Given 1940-41.

203 THESIS. (3) I OR II Senior Staff
Required in addition to 24 credits for master's degree.

204 CALCULUS OF VARIATIONS. (3) II Downing
Examples illustrating the various types of problems. The differential equation of a curve which minimizes a definite integral. Other properties of a minimizing arc as deduced by Legendre, Weierstrass and Jacob. Isoperimetric problems. Offered 1941-42. **Prerequisites: Math. and Ast. 105a, 106a.**

205 DIFFERENTIAL GEOMETRY. (3) II John
Introductory 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. Offered 1941-42.

207a THEORY OF NUMBERS. (3) I Latimer
This course covers the material in Chapters 1–5, inclusive, of Dickson's Introduction to the Theory of Numbers. Offered 1941-42.

207b THEORY OF NUMBERS. (3) II Latimer
Material of Chapters 6-10, inclusive, of Dickson's Introduction to the Theory of Numbers. Offered 1941-42.

208 THEORY OF FUNCTIONS OF A REAL VARIABLE. (3) II Cohen
Theory of the real number system; elements of point-set theory; measure of sets, and the Riemann and Lebesgue theories of integration. Given 1940-41. **Prerequisites: Math. 105a, 106a.**

209 THEORY OF FUNCTIONS OF A COMPLEX VARIABLE. (3) I LeStourgeon
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. Offered 1941-42. **Prerequisites: Math. and Ast. 105a, 106a.**

211 HIGHER ALGEBRA. (3) I Latimer
This course covers the material in Chapters 2–11 inclusive and Chapter XX in Bocher's "Introduction to Higher Algebra". Given 1940-41. **Prerequisite: Math. and Ast. 20a.**

218 ALGEBRAIC NUMBERS. (3) II Latimer
An introductory course in the theory of algebraic numbers. The work is based upon Heck's, etc. Given 1940-41. **Prerequisite: Consent of instructor.**

220a-d MATHEMATICS SEMINAR. (2) I AND II Latimer, Cohen, John
Given 1940-41; offered 1941-42.

221 TENSOR ANALYSIS. (3) I John
A course on the modern extension of vector analysis with special emphasis on the applications to differential geometry. Topics considered: Algebraic part of the theory of tensors. Quadratic differential forms. Riemannian geometry Pseudo-Euclidean geometry. Given 1940-41.

Astronomy

***51a DESCRIPTIVE ASTRONOMY. (3) I AND II** Downing, South
An elementary, non-mathematical course.

***51b DESCRIPTIVE ASTRONOMY. (3) I AND II** DOWNING, South
Continuation of 51a.

* Courses open to freshmen.

52a PRACTICAL ASTRONOMY. (3) II Downing

A second course in which will be considered such problems as the computation of latitude, longitude, eclipse and occultations, and the preparation of star lists. Given 1940-41. **Prerequisite: Math. and Ast. 51a, b.**

54 ELEMENTARY OBSERVATIONS IN ASTRONOMY. (2) II Downing

This course includes a study of the principal constellations, bright stars, double stars, nebulae, and clusters; motions of the sun, moon, and planets; use of the American Ephemeris; elementary problems involving determination of latitude, longitude, and time; etc. This course follows closely the plans as outlined in Byrd's First Observations in Astronomy and Stetson's Manual of Laboratory Astronomy. Given 1940-41. **Prerequisite: Math. and Ast. 51a, b.**

Note.—Other courses such as Fourier's Series. Potential Function, Analytic Mechanics, Algebraic Curves, Modern Solid Geometry, Algebraic Invariants, Advanced Analytics, Celestial Mechanics, Groups, and second courses in various subjects will be given from time to time.

MILITARY SCIENCE

Lieutenant Colonel Donnelly, Majors Brannan and Croft, Captains Carpenter, Miles; Lieutenants Lofink, Carter, Myers, Smee, Allison; Master Sergeant Strecker, Technical Sergeants Hoy, Perkins; Staff Sergeant Kinker; Sergeants Draper, Wofford.

Reserve Officers' Training Corps

The University of Kentucky maintains an infantry unit of the senior division of the Reserve Officers' Training Corps in conformity with the 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 defense 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.

Course. The military Department offers a progressive course of four years, consisting of a two years' basic course and a 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 with rate of pay at $1.00 per day.

Additional Advanced Training. Due to the limited quota for the Advanced Course, provision is made by the War Department to permit eligible and qualified students whose applications have been approved by the Secretary of War to pursue the course to completion, including the Advanced ROTC Camp. These students receive no allowances at the University, but are paid for camp attendance. On successful completion of the entire course, they become eligible for a commission in the Officers' Reserve Corps.

*1a **FIRST YEAR BASIC COURSE, ROTC.**
(1.3) I Brannan, Lofink, Myers, Kinker, Draper

Introductory course in Military Science, covering the following subjects: National Defense Act and Obligations of Citizenship; Military History and Policy; Military Discipline, Courtesies and Customs of the Service; Map Reading; Leadership, Drill and Command; Weapons, Rifle and Rifle Marksmanship. Three hours a week.

*1b **FIRST YEAR BASIC COURSE, ROTC.**
(1.3) II Brannan, Lofink, Myers, Kinker, Draper

Continuation of introductory course in Military Science, covering the following subjects: Military Sanitation and First Aid; Military Organization; Leadership, Drill and Command. Three hours a week.

*3a **FIRST YEAR BASIC COURSE, ROTC.**
(1.3) I Magurean, Allison, Hoy

Band. Six hours a week.

*3b **FIRST YEAR BASIC COURSE, ROTC.**
(1.3) II Magurean, Allison, Hoy

Band. Six hours a week.

4a **SECOND YEAR BASIC COURSE, ROTC.**
(1.5) I Magurean, Allison, Hoy

Band. Six hours a week. **Prerequisites: Military Science 3a, 3b.**

4b **SECOND YEAR BASIC COURSE, ROTC.**
(1.5) II Maurgean, Allison, Hoy

Band. Six hours a week. **Prerequisites: Military Science 3a, 3b.**

* Courses open to freshmen.

6a SECOND YEAR BASIC COURSE, ROTC.
(1.5) I Donnelly, Carter, Smee, Allison
Course in Military Science covering the following subjects: Combat Training, Musketry; Scouting and Patrolling; Combat Principles; Leadership. Three hours a week. **Prerequisites: Military Science 1a, 1b.**

6b SECOND YEAR BASIC COURSE, ROTC.
(1.5) II Donnelly, Carter, Smee, Allison
Course in Military Science covering the following subjects: Weapons, Automatic Rifle; Leadership. Three hours a week. **Prerequisites: Military Science 1a, 1b.**

7a FIRST YEAR ADVANCED COURSE, ROTC. (3) I Carpenter
Course in Military Science covering the following subjects: Combat Training; Machine Gun; Howitzer Weapons. Five hours a week. **Prerequisites: Military Science 1a, 1b, 6a, 6b.**

7b FIRST YEAR ADVANCED COURSES, ROTC. (3) II Carpenter
Course in Military Science covering the following subjects: Pistol; Rifle; Administration; Chemical Warfare; Combat Training; Leadership. Five hours a week. **Prerequisites: Military Science 1a, 1b, 6a, 6b.**

8a SECOND YEAR ADVANCED COURSE, ROTC. (3) I Miles
Course in Military Science covering the following subjects: Review of Combat Principles; Combat Principles—Rifle Company, Machine Gun Company, and Howitzer Company; Weapons, Tanks; Anti-Tank Defense; Anti-Aircraft Defense; Signal Communications; Combat Intelligence. Five hours a week. **Prerequisites: Military Science 1a, 1b, 6a, 6b, 7a, 7b.**

8b SECOND YEAR ADVANCED COURSE, ROTC. (3) II Miles
Course in Military Science covering the following subjects: Mechanization; Property Emergency Procurement; Military Law; Military History and Policy; Officers' Reserve Corps Regulations; Leadership. Five hours a week. **Prerequisites: Military Science 1a, 1b, 6a, 6b, 7a, 7b.**

MUSIC

Professor Lampert, Associate Professor Capurso, and Miss Lewis, Mr. Allton, Mrs. Cullis, Mr. Magurean, Mr. Ogle, Mr. Richardson, and Miss Mason.

The aim of this department is to develop a high standard of professional and a vocational leadership for the state of Kentucky as well as to provide opportunities for cultural experiences in music for the university student. Various music courses may be taken:

(1) As work to apply on the degree of Bachelor of Science in Music (see p. 54).
(2) As work to apply on the degree of Bachelor of Arts with a major in music.
(3) As elective for those majoring in other departments.

Not more than 18 credits in Applied Music may be offered to count toward the A.B. or B.S. degree in other colleges.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in Field of Concentration: Forty credits of advanced work in field of Literature, Philosophy, and the Arts during junior and senior years, including the major work. All candidates for the B.S. in Music degree are to be required to take part in either orchestra or glee club, or both (credit is given for one if both are taken), for the four years without credit. This also applies to music majors from other colleges.

Requirements for a Major. Prerequisites: Junior standing; Music 33a, b; Applied Music 6 credits; Psychology 1. **Required:** A minimum of 15 credits of advanced work in Music to be selected from Music 4a, b; 12a, b; 13a, b; 19a, b; 26; 34a, b. Music 42 and a comprehensive examination are required of all music majors in the senior year.

All candidates for the B. S. in Music Degree are to be required to take part in EITHER ORCHESTRA OR GLEE CLUB for the four years without credit. Students participating in **both** orchestra and glee club may receive credit for one of the organizations.

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 and many other campus and civic events. A course in band directing is available to a limited number of the more proficient students.

University Vocal Ensembles

Glee Clubs. The University Women's and Men's Glee Clubs are composed of all qualified students. These organizations appear at many university and community functions during the year including Sunday Afternoon Musicales, out-of-town appearances, and radio programs.

Choristers. This organization is composed of 24 selected vocal students and performs both sacred and secular music.

Mixed Chorus. This organization is composed of the combined Men's and Women's Glee Clubs the second semester of each year and provides University students an opportunity to study and perform major cantatas and oratorios, such as the Elijah, Messiah, St. Matthew's Passion, etc.

Participation in Musical Organizations

No student is allowed to participate in orchestra, glee clubs, or other musical organizations unless he has met all eligibility requirements for extra-curricular activities.

4a PUBLIC SCHOOL MUSIC. (2) I, II, S — Mason
A course in methods in the primary grades.

4b PUBLIC SCHOOL MUSIC. (2) I, II, S — Mason
A course in teaching music in the intermediate grades. **Prerequisite: Music 4a.**

9a ORGANIZATION AND TRAINING OF MUSICAL GROUPS (STRINGS). (2) I, II, S — Lampert
The course is a study of the techniques, organization, instruction and direction of instrumental ensembles.

9b ORGANIZATION AND TRAINING OF MUSICAL GROUPS (BRASSES AND PERCUSSION). (2) I, II, S — Magurean
A study of brass instruments and the use of percussion.

9c ORGANIZATION AND TRAINING OF MUSICAL GROUPS (WOODWINDS). (2) I, II, S — Magurean
A study of the clarinet, flute, saxophone, and double reed instruments.

12a COUNTERPOINT. (2) I, S — Allton
A study of simple counterpoint in all species of applied counterpoint including the conduct of single melodic part and the association of two melodic parts. **Prerequisites: Music 33a-b, 34a-b.**

12b COUNTERPOINT. (2) II, S — Allton
A continuation of Music 12a, applied counterpoint, including various modes of imitation, the invention, and sonata form. **Prerequisite: Music 12a.**

13a FORM AND ANALYSIS. (2) I, S — Capurso
A study of the design and harmonic structure of simple and complex forms of music through analyses of standard musical compositions. **Prerequisites: Music 33a-b.**

13b FORM AND ANALYSIS. (2) II, S — Capurso
A continuation of Music 13a. **Prerequisite: Music 13a.**

†*15a-h APPLIED MUSIC (PIANO). (3) I, II, S — Richardson

†*16a-h APPLIED MUSIC (STRINGS). (3) I, II, S — Lampert
A study of the violin, viola, cello, and bass viol.

†*17a-h APPLIED MUSIC (VOICE). (3) I, II, S — Ogle

†*18a-h APPLIED MUSIC (ORGAN). (3) I, II, S — Cullis

19a HISTORY OF MUSIC. (3) I, S — Lampert
A general study of the history of music development from the standpoint of form. Open only to Music majors.

19b HISTORY OF MUSIC. (3) II, S — Lampert
A continuation of Music 19a. Open only to Music majors.

---

* a and b courses open to freshmen.
† Two ½ hr. lessons per week, 3 credits, $36.00.
One ½ hr. lesson per week, 1.5 credits, $18.00.

20 SURVEY OF MUSICAL LITERATURE. (2) I, II, S Lampert
This course is intended for non-music majors desiring to acquire an understanding of the literature of music. It consists of a presentation of the various schools of music: the polyphonic, classic, romantic, and modern. (Not open to B.S. in Music or Music Majors.)

***22a BAND. (1.3) I** Magurean
For Freshmen not enrolled in Military Science.

***22b BAND. (1.3) II** Magurean
A continuation of Music 22a.

23a BAND. (1.5) I Magurean
For sophomores not enrolled in Military Science.

23b BAND. (1.5) II Magurean
A continuation of Music 23a.

26 HIGH SCHOOL METHODS. (2) I, II, S Lewis
A course in methods of teaching music in high school.

28a CONCERT BAND. (1) I, S Magurean
For juniors.

28b CONCERT BAND. (1) II, S Magurean
For juniors.

29a CONCERT BAND. (1) I, S Magurean
For seniors.

29b CONCERT BAND. (1) II, S Magurean
For seniors.

***31a-h APPLIED MUSIC (WOODWIND INSTRUMENTS). (3) I, II, S** Magurean

32a-h APPLIED MUSIC (BRASS AND PERCUSSION INSTRUMENTS). (3) I, II, S Magurean

***33a ELEMENTARY HARMONY AND SIGHT READING. (4) I, S** Allton
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 and its inversions, free composition. Drill in notation of music, scale, interval relations and rhythmic values, and their interpretation vocally.

***33b ELEMENTARY HARMONY AND SIGHT READING. (4) II, S** Allton
Secondary triads, modulation, supertonic seventh, dominant ninth, borrowed chords, free composition. Introduction of chords. **Prerequisite: Music 33a.**

34a ADVANCED HARMONY, DICTATION AND EAR TRAINING. (4) I, S Allton
Drill in recognition from dictation of rhythms and intervals in a melody, and memorizing of material dictated. A study of secondary seventh harmonies, chords of the ninth, altered chords, augmented sixth chords, and free composition. **Prerequisites: Music 33a, and b.**

---

* a and b courses open to freshmen.

34b ADVANCED HARMONY, DICTATION AND EAR TRAINING. (4) II, S Allton
A continuation of Music 34a with the introduction of simple harmonic material. A study of chords with raised fifths, transition, modulation, modern tendencies, and free composition. **Prerequisite: Music 34a.**

***39a-h GLEE CLUB. (1) I, II, S** Allton and M. Lewis
Any student in the University may be admitted to the glee club after consultation with the director. (No credit allowed for B.S. in Music or Music majors unless taken in conjunction with orchestra.)

***40a-h ORCHESTRA. (1) I, II, S** Lampert
Students who have demonstrated the required ability are given an opportunity to study standard orchestral literature. Public performances are given at regular intervals. (No credit allowed for B.S. in Music or Music Majors unless taken in conjunction with Glee Club.)

42 SEMINAR. (1) I, II, S Staff
A general study of any particular phase of music or music education, preparation for comprehensive examination, and graduation recital.

The following courses open only to Upper Division and Graduate Students

110a-b INDEPENDENT WORK IN MUSIC. (2) I, II, S Capurso and Allton

114a ORCHESTRATION AND CONDUCTING. (2) II, S Capurso and Lampert
Technique and practice of conducting and arranging for orchestra and wind band.

114b ORCHESTRATION AND CONDUCTING. (2) II, S Capurso and Lampert
Continuation of 114a. Given only when demand warrants it. Not a requirement.

115 CHORAL METHODS AND CONDUCTING. (2) I, II, S Lewis
This course is intended for music supervisors majoring in the choral field and may be substituted for the course, Orchestration and Conducting, required of instrumentalists. This will be a study of materials, techniques, and problems of presenting choral literature to the secondary age and above. (This course will not duplicate the high school music methods course, Music 26.)

The following courses for Graduates only

215a-d APPLIED MUSIC (PIANO). (3) I, II, S Richardson

216a-d APPLIED MUSIC (STRINGS). (3) I, II, S Lampert

217a-d APPLIED MUSIC (VOICE). (3) I, II, S Ogle

218a-d APPLIED MUSIC (ORGAN). (3) I, II, S Cullis

228a-d CONCERT BAND. (1) Magurean

* a and b courses open to freshmen.

202 HISTORY OF MUSICAL THOUGHT. (2) II, S Lampert
The course is an intensive study of the earliest beginning of music to the 20th century. The approach, however, is not provided by purely historical study. The immediate purpose of scientific history is to exhibit its politics, the economic life, or the musical art of a past age as it once was. The larger purpose of the historian is to present this account of the past as an explanation of the way in which things of the present came to be as they are. In short this course is to be a history of musical thought.

203 CHORAL LITERATURE AND TECHNIQUE. (2) S Lewis
An opportunity to study the world's best choral literature and remedial work along the lines of choral presentation; interpretation as influenced by harmonic and melodic structure, vowel production, tone quality, tempi, traditions, program building, etc. Given 1940-41; offered 1941-42.

204 ADVANCED BAND TECHNIQUE. (2) II, S Magurean
An advanced course in band techniques with concentration on band organization and materials, the technique of band conducting and general preparation of band instrumentations for balance, the study of transposition of band repertoire, and an intensive study in the field of band arranging. Given 1940-41; offered 1941-42.

208a-b SEMINAR IN MUSIC. (1) I, II, S Staff
One two-hour meeting is held each week for discussion of current developments in music found in recent books and periodicals. Given 1940-41; offered 1941-42.

University Orchestras

The University Philharmonic 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 raising the musical tone of the student body. Admission by consultation with the director.

The University Simfonietta is an organization of twenty advanced instrumentalists whose purpose is to study and perform works written primarily for the little symphony.

Chamber Music

Chamber Music ensembles, such as string trios and quartets, brass sextets; and woodwind ensembles, are organized each year to provide additional opportunities in music for those instrumental students who desire this type of activity.

PHILOSOPHY

Professor Kuiper and Assistant

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in Field of Concentration: Forty credits of advanced work, including the major courses, which may be elected in

either (1) the field of Literature, philosophy and the Arts, or (2) the field of Social Studies.

Requirements for a Major. Prerequisites: 6 credits in Philosophy. **Required:** A minimum of 15 credits of advanced work in Philosophy 35a-b; a comprehensive examination in the senior year.

21 INTRODUCTION TO PHILOSOPHY. (3) I, II, S Kuiper
An elementary study of the principal types of philosophy, past and present.

31 LOGIC (Elementary). (3) I, II, S Kuiper
An introductory study of the logical principles underlying valid thinking.

35a TUTORIAL WORK IN PHILOSOPHY. (1) I Kuiper
Weekly conferences with major students; reports on assigned readings; readings in preparation for the comprehensive examination. Open only to senior majors in Philosophy.

35b TUTORIAL WORK IN PHILOSOPHY. (1) II Kuiper
Continuation of 35a.

51 ETHICS. (3) I, II, S Kuiper
A study of morality and right action, and an introduction to value theory.

Courses open only to Upper Division and Graduate Students

101a HISTORY OF PHILOSOPHY. (3) I Kuiper
A survey of the philosophical thought of ancient Greece and medieval Christendom. Given 1940-41.

101b HISTORY OF PHILOSOPHY. (3) II Kuiper
A survey of modern philosophy from the Renaissance to contemporary times. Given 1940-41.

109a-d INDEPENDENT WORK. (3) I, II, S Kuiper
Open only to students who have distinguished themselves in Philosophy or allied subjects.

110 MAKING OF THE MODERN MIND. (3) Kuiper
A study of the intellectual and cultural background of modern times.

115 INTERMEDIATE LOGIC. (3) Kuiper
A second course in logic, including an introduction to symbolic logic and its relation to traditional logic. **Prerequisite: Philosophy 31.** Given 1940-41.

118 PLATO AND ARISTOTLE. (3) II Kuiper
A study in English of the chief dialogues of Plato and of Aristotle's **Ethics, Politics,** and **Metaphysics.** Offered 1941-42.

120 GREAT RELIGIONS OF THE WORLD. (3) I Kuiper
A study of six religions in relation to the culture in which they arose; Shinto, Hinduism, Buddhism, the religion of ancient Greece, the religion of Israel and Judaism, and Christianity. Offered 1941-42.

Courses open only to Graduate Students

210a-b TYPES OF LOGICAL THEORY. (3) Kuiper
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.

220a-b RESEARCH IN PHILOSOPHY. (3) I, II Kuiper
This course is primarily intended for advanced students who desire and are prepared to do research in logic or epistemology.

Note.—Other courses, like Contemporary Philosophy and Epistemology will be given from time to time.

PHYSICAL EDUCATION

Professors Potter and Stout; Assistant Professor Hackensmith, and Mr. Huddleston, Mr. Karsner, Mrs. Kouns, Miss Warren, Mr. Kurachek, Miss Lewis, Mr. McCubbin, and Mr. Mr. Wadlington.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in Field of Concentration: Forty credits of advanced work in the field of Biological Sciences, including the major work.

Requirements for a Major. Prerequisites: Physical Education 41. 4 credits in Physical Education 40a-h; Zoology 1a, b; Soc. 2. **Required:** Physical Education 123, 125, (for women, 112, 115) 60a, 60b; Anatomy and Physiology 4 and 5. Minimum on Major 15 credits. Comprehensive examination senior year.

For teacher certification requirements, check with Dean of Arts and Sciences College and Head of Department of Physical Education.

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 "Restricted Physical Activity Classes".

The program of study and activities of the Physical Education Department is threefold. The required or service physical education program consists of specific courses of instruction for men and women students which are designed to (1) teach the student an activity or activities which may serve as a recreational pursuit during leisure time, (2) provide the student with a means of regulated physical exercise, and (3) develop a sane and intelligent attitude toward physical activity and competitive sports. The second division of the department's program is its Intramural Sports program for men students and Women's Athletic Association program for women students. Through the Intramural and W.A.A. programs, numerous activities are sponsored which provide opportu-

nity for all students to participate in sports activities on a competitive basis. The third division of the Department's functions is the Teacher Training Program which provides opportunity for students to prepare themselves to teach physical education, to coach athletic teams and to train for leadership in municipal or community recreation work.

Service Courses for Men

A uniform, consisting of regulation sweat shirt, sweat trousers, white cotton undershirt, gym shorts, and rubber-solded 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 $1.25 per semester is charged each student and includes clean towel service, soap, and locker rental. Each student must furnish a padlock for his locker.

Note.—The following courses may be elected to meet the physical education requirements for graduation.

*1a-d **RESTRICTED PHYSICAL ACTIVITY.** (.7) I, II — Karsner
Students are assigned to this class on recommendation of the University physician. Special exercise programs, and game activities are taught to meet the individual needs. Two hours per week.

*3 **BOXING.** (.7) I, II — Huddleston
Fundamentals of boxing. For beginners. Two hours per week.

*4 **HANDBALL.** (.7) I, II — Staff
Fundamentals of handball. For beginners. Two hours per week.

*5 **BASKETBALL AND SOFTBALL.** (7) II — Staff
Fundamentals of basketball first half semester; fundamentals of softball second half semester. Two hours per week.

*6 **WRESTLING.** (.7) I, II — Hackensmith, Huddleston
Fundamentals of wrestling. For beginners. Two hours per week.

*7 **GOLF.** (.7) II — Staff
Fundamentals of golf. For beginners. Two hours per week.

*8 **GROUP GAMES AND CONTESTS.** (.7) I — Staff
Low organized games, mass recreational activities and individual contests. Two hours per week.

*10 **INDIVIDUAL ATHLETICS.** (.7) I, II — Huddleston
Practice in individual athletic events including track, field and gymnasium activities. Two hours per week.

*11 **TENNIS.** (.7) II — Huddleston
Fundamentals of tennis. For beginners. Two hours per week.

*12 **TOUCH FOOTBALL AND VOLLEYBALL.** (.7) I — Staff
Fundamentals of touch football first half semester; fundamentals of volleyball second half semester. Two hours per week.

*13 **FENCING.** (.7) I, II — Staff
Fundamentals of fencing. For beginners. Two hours per week.

* Courses open to freshmen.

*15 **APPARATUS AND TUMBLING.** (.7) I, II — Huddleston
Fundamental activities on gymnasium apparatus and tumbling stunts. For beginners. Two hours per week.

*16 **SOCCER FOOTBALL.** (.7) I, II — Staff
Fundamentals and team play of soccer football. Two hours per week.

*18 **ARCHERY AND BADMINTON.** (.7) I, II — Karsner
Fundamentals of archery first half semester, badminton second half. Two hours per week.

*19 **FOLK DANCING.** (.7) I, II — Karsner
Participation in folk dances of various countries. Two hours per week.

*21 **RECREATIONAL SPORTS.** (.7) I, II
Instruction and participation in Deck Tennis, Aerial Dart, Clock Golf, and other recreational sports.

Service Courses 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 fee of $1.25 per semester is charged each student and includes clean towel service, soap, and locker rental. Each student must furnish a padlock for her locker.

Note.—The following courses may be elected to meet the physical education requirement for graduation.

1a-d **RESTRICTED PHYSICAL ACTIVITY.** (.7) I, II — Stout
Students are assigned to this class on recommendation of the University physician. Special exercise programs are prescribed to meet the individual needs. Two hours per week.

*2 **TAP AND CLOG DANCING.** (.7) I, II — Montgomery
Fundamental steps designed for beginners. Two hours per week.

*5 **BASKETBALL AND SOFTBALL.** (.7) II — Warren
Fundamentals of basketball first half semester; fundamentals of softball second half semester. Two hours per week.

*7 **GOLF.** (.7) II — Montgomery
Fundamentals of golf. For beginners. Two hours per week.

*10 **INDIVIDUAL ATHLETICS.** (.7) I, II — Warren
Practice in individual athletic events including track, field and gymnasium activities. Two hours per week.

*11 **TENNIS.** (.7) II — Montgomery, Warrren
Fundamentals of tennis. For beginners. Two hours per week.

*13 **FENCING.** (.7) I, II — Warren
Fundamentals of fencing. For beginners. Two hours per week.

*17 **HOCKEY AND VOLLEYBALL.** (.7) I — Warren
Fundamentals of hockey first half semester, volleyball second half. Two hours per week.

---

* Courses open to freshmen.

*18 **ARCHERY AND BADMINTON.** (.7) I Montgomery, Warren
Fundamentals of archery first half semester, badminton second half. Two hours per week.

*19 **FOLK DANCING.** (.7) II Montgomery
Participation in folk dances of various countries. Two hours per week.

*22 **TUMBLING AND STUNTS.** (.7) I, II Warren
Fundamentals of tumbling and stunts on the apparatus. Two hours per week.

*24 **RHYTHMICAL ACTIVITIES.** (.7) I, II Montgomery
Fundamental rhythmic movements and natural dance activities. Two hours per week.

*25 **ADVANCED FENCING.** (.7) I, II Warren
Open to students who have taken P. E. 13 or who have had experience in the fundamentals of fencing.

*27 **MODERN DANCE.** (.7) I, II Montgomery
Class work in technique, dance form and rhythmical activities with creation of patterns by class. Two hours per week.

*28 **HORSEBACK RIDING.** (.7) I, II Montgomery
Fundamentals of riding. Beginners and elementary class. Special fee of $8.00 to $12.00. Two hours per week.

*30 **ADVANCED TAP DANCING.** (.7) I, II Montgomery
Review of fundamental tap steps and terms. Intermediate and advanced steps are given. Students without previous work are not admitted to the course. Two hours per week.

*32 **ADVANCED EQUITATION.** (.7) I, II Montgomery
Open to students who have had P. E. 28 or equivalent experience in riding, cantering, learning to jump, and to ride a variety of horses in the ring and on the trail. Special events. Special fee $8.00 to $12.00. Two hours per week.

Professional and Teacher Training Courses

*36 **FOOTBALL AND BASKETBALL FUNDAMENTALS.**
(4) I Huddleston
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.

*40a-h **TECHNIQUES OF PHYSICAL EDUCATION ACTIVITIES.**
(1) I, II Staff
Open to physical education majors only, who will take this course in place of the .7 credit required physical education courses. Training and practice in the fundamental skills and techniques of school and playground physical education activities. Three hours per week.

*41 **INTRODUCTION TO PHYSICAL EDUCATION.** (1) I Potter
An orientation course emphasizing the development and present day significance of physical education in the school, health education and community recreation programs. Required of all Physical Education majors the first semester they declare Physical Education as their major. Two hours per week.

* Courses open to freshmen.

42 **PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL. (3) II** Warren
Required of all who wish to qualify for the Elementary School Teaching Certificate. Materials, practice and techniques in physical education activities suitable for elementary school children. Consideration of the significance of physical education in the elementary school and responsibilities of the class room teacher for leadership. Three hours per week.

*51 **TRACK AND FIELD ATHLETICS AND BASEBALL. (3) II** Rupert
Instruction and practice in all track and field events and baseball fundamentals. Five hours per week.

55 **TECHNIQUE AND PROCEDURE OF THE DANCE. (2) II** Montgomery
An analysis of techniques and teaching procedures of traditional dance steps and movements. A consideration of the relationship of musical and movement patterns. Projects to foster the developments of the student's analytical and critical faculties pertaining to the dance.

70 **PRINCIPLES OF ATHLETIC TRAINING AND FIRST AID. (1) II** Huddleston
Diagnosis and treatment of injuries common to athletic contests. Theory and practice in massage, taping and bandaging. Two hours per week. **Prerequisite: A. & P. 2a and 2b.**

The following courses open only to Upper Division and Graduate Students**

60a-b **TUTORIAL WORK IN PHYSICAL EDUCATION. (1) I, II** Hackensmith
This is work to be given in connection with the comprehensive examination, required of major students. Two hours per week. **Open to men and women students.**

112 **PROGRAMS AND MATERIALS OF PHYSICAL EDUCATION FOR GIRLS AND WOMEN. (3) II** Warren
A consideration of the application and interpretation of physical education activities for girls and women. A consideration of selection of materials, organization of activities, and methods of teaching as applicable to women's physical education program.

115 **HISTORY AND SURVEY OF THE DANCE. (3) I** Montgomery
A study of the history and development of the various dance forms, including ballet dances, free dances, folk dances, national dances, eastern dances, American Indian dances, and a study of modern tendencies, and relation of dancing to physical education.

120 **PHYSICAL DIAGNOSIS AND MEDICAL GYMNASTICS. (3) I** Karsner
Theory and practice in physical and health examinations. Study of exercises applicable to weak feet, heart disturbances, constipation, hernia, blood pressure, paralysis, obesity, mal-nutrition, post-operation conditions, and bone and joint abnormalities. **Prerequisites: P. E. 20; Anatomy and Physiology 4 and 5. Open to men and women students.**

---

* Courses open to freshmen.
** All advanced courses offered 1940-41, will be offered 1941-42.

123 HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION. (3) I Hackensmith

Study of the historical development of Physical Education, and contributions of the individuals and organizational movements. An interpretation of the biological, psychological and sociological principles of physical education. Three hours per week.

125 ADMINISTRATION AND ORGANIZATION OF MUNICIPAL AND COMMUNITY RECREATION. (3) II Montgomery

A general consideration of the principles and procedures involved in organization methods and administrative policies for supervised children's, youths' and adults' recreation. Visitation and field trips to local municipalities and communities to study and discuss conditions as they pertain to organized recreational projects. **Prerequisites: P. E. 29 or sufficient experience in organized recreational work. Open to men and women students**

129 PHYSICAL EDUCATION IN THE SECONDARY SCHOOL. (3) I Potter

Required of all physical education majors who wish to qualify for teacher certification as a physical education teacher on the secondary school level. Study of theory, practice and methods of teaching physical education activities and program for secondary school age pupils. Three hours per week.

131 ADVANCED BASKETBALL. (2) II Huddleston

Lectures and recitation on theory and practice of team play in basketball. Special emphasis is placed on systems of offense and defense as used by the leading coaches throughout the country. Two hours per week.

142 ADVANCED FOOTBALL. (2) I Kirwan

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. **Prerequisite: P. E. 36 or two years college football.**

149 ADMINISTRATION OF PHYSICAL EDUCATION AND ATHLETICS. (3) II Potter

Policies and procedures of administration on the secondary school and collegiate levels. Special emphasis on construction and care of facilities, equipment, and supervision of personnel. Three hours per week.

151 ORGANIZATION OF INTRAMURAL SPORTS AND SPORTS OFFICIATING. (3) II Hackensmith

Lecture, recitation and practice in the supervision of intramural sports programs on the elementary, secondary, and collegiate levels. Theory and practice in officiating sports. Three hours per week.

Open to Graduate Students only

200 GRADUATE SEMINAR IN PHYSICAL EDUCATION. (2) I Karsner

Graduate students majoring in physical education who are engaged in writing a thesis should register for this course. **Open to men and women students.**

201 RESEARCH IN PHYSICAL EDUCATION. (5) II Potter

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. **Open to men and women students.**

202 PROBLEMS COURSE IN CONTEMPORARY MOVEMENTS IN PHYSICAL EDUCATION. (3) I Hackensmith

A detailed study and analysis of various foreign systems and procedures in physical education and athletic activities, including Germany, Denmark, Sweden, England, Italy, Russia, Japan, Olympic Games, and present athletic and physical education trends in the United States. **Open to men and women students.**

203 CURRENT STUDIES IN THE ADMINISTRATION OF PHYSICAL EDUCATION. (2) II Potter

For Administrative Officers, Directors of Physical Education, and Leisure Time Activities. A study of representative programs of physical education and standards for evaluating programs. **Open to men and women students.**

204 CURRENT STUDIES IN THE ADMINISTRATION OF ATHLETICS. (2) Staff

For Athletics Directors, Supervisors, and Athletic Coaches. A study of representative athletic administration procedures for colleges, public school systems and municipal athletic leagues. **Open to men and women students.**

PHYSICS

Professors Webb and Koppius, Associate Professors Hahn, Pardue and Warburton, Assistant Professors Ramsay and Todd, Instrument Maker Schneider

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in Field of Concentration: Forty credits of advanced work in the field of Physical Sciences, including the major work.

Requirements for a Major. Prerequisites: Physics 3a, 3b; Mathematics 17, 18, 19.

Required: Mathematics 20a, 20b; Physics 125c, and a minimum of 15 credits of advanced work in Physics; a comprehensive examination in the senior year.

***1a GENERAL ELEMENTARY PHYSICS. (5) I, II, S** Webb, Todd

A general elementary course covering Mechanics, Wave Motion and Heat. Lectures and recitations, four hours; laboratory, two hours.

***1b GENERAL ELEMENTARY PHYSICS. (5) I, II, S** Webb, Todd

Continuation of Physics 1a, covering Magnetism and Electricity, Sound and Light. Lectures and recitations, four hours; laboratory, two hours. **Prerequisite: Physics 1a.**

---

* Courses open to freshmen.

3a **GENERAL COLLEGE PHYSICS. (6) I, II, S** Staff
An advanced general course covering Mechanics, Wave Motion and Heat. Lectures and recitations, four hours; laboratory, four hours. **Prerequisites: College Algebra and Trigonometry, Mathematics 19; College Chemistry; or equivalents; Mathematics 20a,** concurrent.

3b **GENERAL COLLEGE PHYSICS. (6) I, II, S** Staff
An advanced general course, covering Magnetism, Electricity, Sound and Light. Lectures and recitations, four hours; laboratory, four hours. **Prerequisite: Physics 3a.**

*51a **INTRODUCTION TO PHYSICS. (3) I, S** Webb
A lecture demonstration course covering the subjects of Mechanics, Wave Motion and Heat.

*51b **INTRODUCTION TO PHYSICS. (3) II, S** Webb
A lecture demonstration course covering the subjects of Magnetism and Electricity, Sound and Light.

The following courses open only to Upper Division and Graduate Students

104 **THEORETICAL MECHANICS. (5) I, S** Pardue
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. Lectures and recitations, five hours. **Prerequisites: Physics 3b; Mathematics 20b.**

108 **THEORY OF LIGHT. (3) II, S** Ramsay
This course is designed to provide a foundation for the study of the nature of light and optical phenomena. Six topics are treated: wave motion, Maxwell's definition of physical optics, geometrical optics, interference, diffraction, and optical instruments. **Prerequisites: Physics 3b, Mathematics 20b.**

111 **ELECTRICITY AND MAGNETISM. (3) I, S** Warburton
A study of the fundamental theory of electricity and magnetism, dealing with electrons. The physical concepts of electrical quantities are emphasized and systems of units defined. The course covers electrostatic forces and energy, conductors and dielectrics, electrolysis, thermoelectricity, magnetic forces and energy of currents, magnetization of iron, transient and alternating currents, and Maxwell's waves. **Prerequisites: Physics 3b, Mathematics 20b.**

113 **FUNDAMENTALS OF RADIO. (3) S** Hahn
A course in radio primarily for high school teachers. The fundamental principles of vacuum tube characteristics, amplifiers, oscillators, transmitters and receivers; laboratory work in constructing and operating simple radio equipment of a type suitable for radio club projects. **Prerequisite: Physics 1b or equivalent.**

114 **VACUUM TUBES AND CIRCUIT THEORY. (3) II** Hahn
The theory of vacuum tubes and the measurement of their characteristics; amplifiers and oscillators; piezoelectric phenomena; radiation and propagation of high frequency electric waves; measurement of circuit constants, etc. **Prerequisites: Physics 3b, Mathematics 20b.**

* Courses open to freshmen.

116a PHYSICAL MANIPULATIONS.
(1) I, S Webb, Koppius, Schneider

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. **Prerequisite: 10 credits of Physics or Chemistry.**

116b PHYSICAL MANIPULATIONS.
(1) II, S Webb, Koppius, Schneider

A continuation of Course 116a. Laboratory, 2 hours. **Prerequisite: Same as for Course 116a.**

117 THEORY OF HEAT. (3) II, S Koppius

A lecture and problem course dealing with the fundamental principles of heat phenomena. Topics considered are: Production and measurement of high and low temperatures, specific heat relations both classical and modern, molecular spectra and specific heat, expansion, conduction, radiation, equations of state and change of state, temperature dependence of physical quantities such as viscosity, surface tension, elasticity, etc., elementary thermodynamics. **Prerequisites: Physics 3b, Mathematics 20b.**

119 PRINCIPLES OF X-RAYS. (3) I Hahn

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 3b; Mathematics 20b.**

120 X-RAY TECHNIQUE. (2) II Hahn

An introductory course in x-ray technique. The first half of the course deals with the design and operation of x-ray equipment, the physical basis of voltage, current time and distance factors, intensifying screens, darkroom procedure, etc. The second half is devoted to practice in the radiography of the extremities, chest, head, teeth, etc. **Prerequisites: Physics 1a and 1b.**

122 X-RAY ANALYSIS OF CRYSTALS. (3) II Hahn

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.**

123 PRINCIPLES OF THERMODYNAMICS. (3) I Koppius

A lecture and problem course covering the first and second laws of thermodynamics; derivation of thermodynamic relations and their application to processes in physics and allied sciences. Some of the topics considered are: the gas laws for ideal and real gases, specific heat relations, continuity and change of state, vapor and osmotic pressure, equilibrium, solutions, electrical phenomena, radiation, etc. Lectures and recitations, three hours. **Prerequisites: Physics 117 or equivalent.**

125a-d INDEPENDENT WORK IN PHYSICS. (3) I, II, S Staff

131 EXPERIMENTAL PHYSICS: ELECTRICITY. (2) I, S Warburton

The course provides advanced laboratory practice in electrical measurements. It includes calibration and use of the quadrant electrom-

eter, the d'Arsonval galvanometer and the Type K potentiometer; studies of dielectrics and the magnetization of iron; measurements of capacitance, resistance and inductance; charge and mass of electron; and absolute determinations of electrical quantities. **Prerequisites: Physics 111, or equivalent.**

137 EXPERIMENTAL PHYSICS: HEAT. (2) I, S Koppius

An advanced laboratory course in modern methods of measuring thermal quantities. Opportunity is provided for using the gas thermometer, resistance thermometer, thermoplies, and various types of radiation pyrometers. Construction and calibration of thermocouples. Determination of coefficients of expansion, vapor pressure and densities, viscosity, surface tension, freezing and boiling points, specific and latent heats, ratio of specific heats, heats of combustion, thermal conductivities, radiation constants, etc. **Prerequisite: Physics 117, or equivalent.**

138 EXPERIMENTAL PHYSICS: LIGHT. (2) II, S Ramsay

This course is an advanced laboratory study of lenses, mirrors, prisms, gratings, light sources, filters, apertures, and combinations of these elements in optical systems. The experiments include measurements, with such instruments as the photometer, the spectrometer, the interferometer, and the polarimeter, etc. **Prerequisite: Physics 108, or equivalent.**

151 INTRODUCTION TO ATOMIC PHYSICS. (3) II, S Todd

Corpuscular nature of matter, electricity and radiant energy, molecular, atomic and nuclear structure emissions; theoretical viewpoints upon above problems with special emphasis on their compatibility; relativity; astrophysics. **Prerequisites: Physics 3b; Mathematics 20b.**

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, Electromagnetic Theory of Light, Transient Electric and Vacuum Tube Phenomena, Quantum Theory, Theoretical Physics, Thermodynamics, X-Rays and their Application to Physical Problems, Relativity, Electrodynamics, Magnetism.

For the description of these graduate courses, see the Graduate School Bulletin.

220a SEMINAR. (1) I Staff

A weekly meeting of the staff and advanced students for presentation and discussion of recent developments 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.

220b SEMINAR. (1) II Staff

A continuation of 220a

226a-b RESEARCH IN PHYSICS. (3) Staff

227a-b RESEARCH IN PHYSICS. (5) Staff

Suggested Outline of a Course in the Physical Sciences with Physics as a Major

FRESHMAN YEAR

First Semester	Credits	Second Semester	Credits
Eng. 1a English Comp.	3	Eng. 1b English Comp.	3
Phys. 15a and b Tutorial Work	2	Phys. 15c and d Tutorial Work	2
Math. 17 College Algebra	3	Math. 19 Plane Anal. Geom.	3
Math. 18 Plane Trig.	2	Chem. 1b Gen. Inorg. Chem.	5
Chem. 1a Gen. Inorg. Chem.	5	Hyg. 1 Pers. and Com. Hygiene	1
Mil. Sci. 1a First Year Basic Course	1.3	Ap. Mech. 5 Slide Rule	1
Phys. Ed.	.7	Mil. Sci. 1b First Year Basic Course	1.3
Mat. Lect.	.3	Phys. Ed.	.7
	17.3		17.0

SOPHOMORE YEAR

First Semester	Credits	Second Semester	Credits
Phys. 3a Gen. Col. Phys.	6	Phys. 3b Gen. Col. Phys.	6
Math. 20a Dif. Calc.	4	Math. 20b Integr. Calc.	4
Biol. Science	3 or 4	Biol. Science	3 or 4
Social Studies	3	Social Studies	3
Mil. Sci. 6a, 2nd Year Basic Course	1.5	Mil. Sci. 2nd Year Basic Course	1.5
Phys. Ed.	.7	Phys. Ed.	.7
	18.2 or 19.2		18.2 or 19.2

JUNIOR YEAR

First Semester	Credits	Second Semester	Credits
Physics ("100" courses)	5	Physics ("100" courses)	8
Math. 105a Dif. Equa.	3	Chem. 8 Quant. Anal.	5
Chemistry 4 Qual. Anal.	4	German 1b Elem. Ger.	3
German 1a Elem. German	3	Elective	3
Elective	3		19
	18		

SENIOR YEAR

First Semester	Credits	Second Semester	Credits
Physics ("100" courses)	8	Physics ("100" courses)	6
German 2a Intermed. German	3	Phys. 125c Indep. Work	3
Electives	7	German 2b Intermed. German	3
	18	Electives	6
			18

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

Professors Vandenbosch and Manning, and Associate Professors Blanding, Shannon and 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 citi-

zenship for undergraduate students. (2) provided 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.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in Field of Concentration: Forty credits of advanced work in the field of Social Studies, during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: Political Science 15, 51. **Required:** At least one course in each of four fields of Political Science; Political Science 190; minimum of 15 credits of advanced work in Political Science; a comprehensive examination in the senior year.

*15 **PROBLEMS OF CITIZENSHIP. (3) I, II, S** Staff
Public opinion, the newspaper, advertising, the modern economic system, labor problems, unemployment, agriculture, conservation and the race problem.

*51 **AMERICAN GOVERNMENT. (3) I, II, S** Staff
A survey course in the structure and operation of the Federal Government.

52 **MUNICIPAL GOVERNMENT. (3) I** Manning
An introductory course in the study of the structure and functions of modern city governments.

80 **STATE GOVERNMENT. (3) I, II** Manning
A study of the forms and functions of government in operation in the states of the United States.

The following courses open only to Upper Division and Graduate Students

178a-d **INDEPENDENT WORK. (1) I, II, S**
Honors course primarily designed for seniors. Consent of the department required for admission.

180a-d **INDEPENDENT WORK. (3) I, II, S**
Honors course for seniors who are majors or minors in the department. Consent of the department required for admission.

190 **SEMINAR IN POLITICAL SCIENCE. (3) II** Staff
Open to major students.

I. Political Parties and Public Opinion

170 **POLITICAL PARTIES. (3) I, S** Shannon
An analysis of public opinion and pressure groups; a survey of the history, organization methods and functions of political parties in the United States; with first-hand studies of the individual's participation in government. Offered 1941-42.

* Courses open to freshmen.

173 PUBLIC OPINION. (3) II, S Shannon
The concept of public opinion; public opinion as an agency of political control; influence of the press, propaganda technique and control; competition of pressure groups for political influence. Offered 1941-42.

RELATED COURSES IN OTHER DEPARTMENTS

Psychology 104, Social Psychology.

II. Public Administration

158 REGULATION OF UTILITIES. (3) I Manning
A study of the problems involved in the regulation of public utilities. Attention is given local, state, and inter-state utilities. Not open to students who are taking or have taken Commerce 126, Economics of Public Utilities. Offered 1941-42.

172 KENTUCKY GOVERNMENT AND CONSTITUTION. (3) S Manning
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. Offered summer 1942.

174 PUBLIC WELFARE ADMINISTRATION. (3) II Manning
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. Not offered 1941-42.

177a PRINCIPLES OF PUBLIC ADMINISTRATION. (3) I
A functional study of governmental administration, with emphasis on the theory and practice of administration, the evolution of administrative organization, and staff functions of government, including personnel and financial administration. Offered 1941-42.

177b PRINCIPLES OF PUBLIC ADMINISTRATION. (3) II
A continuation of Political Science 177a, with emphasis on the line functions of government, including the protection of life and property, judicial administration, law enforcement, public health, welfare, education, conservation, and business regulation. Offered 1941-42.

RELATED COURSES IN OTHER DEPARTMENTS

Economics 102. Labor Problems
Economics 104. Public 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. (3) I Shannon
The political theories of Plato, Aristotle, Roman Political Thought, Thomas Acquinas, Dante, Machiavelli, Bodin, Grotius, More, Bacon, Harrington, Filmer, Hobbes, Locke, Spinoza, Montesquieu, Rousseau. Offered 1941-42.

171b MODERN POLITICAL THEORY. (3) II, S Shannon

The theories of the American and French Revolutions, the English Utilitarians, Democratic Political Theory, Socialism, Communism. Offered 1941-42.

RELATED COURSES IN OTHER DEPARTMENTS

Philosophy 101a and 101b. History of Philosophy
Philosophy 110. Making of the Modern Mind

IV. Comparative Government

155a COMPARATIVE GOVERNMENT—PARLIAMENTARY DEMOCRACIES. (3) I, S Trimble

A study of the governments of England, Ireland and the British self-governing dominions. Not offered 1941-42.

155b COMPARATIVE GOVERNMENT—CONTEMPORARY DICTATORSHIPS. (3) II, S Trimble

A study of the government of Europe including France and Switzerland and the dictatorships of Italy, Germany and Russia. Offered 1940-41.

168 THE GOVERNMENTS AND POLITICS OF EASTERN ASIA. (3) II Vandenbosch

An introductory study of the political institutions of China, Japan, the Philippines, and Dutch East Indies and India. Constitutional principles, governmental organization, the party systems, current political issues and contemporary problems of international relations. Offered 1941-42.

V. Public Law

159a AMERICAN CONSTITUTIONAL DEVELOPMENT. (3) I, S Trimble

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. Offered 1941-42.

159b AMERICAN CONSTITUTIONAL DEVELOPMENT. (3) II, S Trimble

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 system. Offered 1941-42.

176 LEGISLATION. (3) I Manning

A functional study of legislative bodies and the process of legislation. Emphasis is placed on the organization of legislative assemblies, the operation of the committee system, the actual process of enactment, including the drafting of bills, and the external controls over legislation. Offered 1941-42.

RELATED COURSES IN OTHER DEPARTMENTS

History 131a-131b. English Constitutional History
Law 149. Municipal Corporations
Law 161a-161b. Constitutional Law I and II

VI. International Law and Diplomacy

101 LATIN AMERICAN RELATIONS. (3) II Blanding
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 1941-42.

150 INTERNATIONAL LAW. (3) II Vandenbosch
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. Offered 1940-41.

160 AMERICAN FOREIGN RELATIONS. (3) I Vandenbosch
An examination of the chief principles and problems of American Foreign policies; the part of the House, the Senate, the Courts and the President in the initiation, conduct and control of foreign policies; the organization of the Department of State, the selection of personnel, the status and duties of foreign service officers. Offered 1941-42.

165 WORLD POLITICS. (3) I Blanding, Vandenbosch
A study of diplomatic history before and after the war with particular stress on the importance of alliances, imperialism, 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. Offered 1940-41.

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 119a. The Nineteenth Century
History 120. The Twentieth Century
Law 164. Conflict of Laws

Courses open only to Graduate Students

202 NATIONAL AND REGIONAL PLANNING. (3) I, S Shannon
A survey of conditions leading to efforts at planning. A study of the theories and principles of planning; a detailed investigation of the regional life of selected areas. Offered 1941-42.

204 INTERNATIONAL RELATIONS AND ORGANIZATION. (3) II S.
Social and economic factors leading to the establishment of international administrative organs, the Mandates System, the International Labor Organization, the League of Nations Offered 1940-41.

205 PACIFIC SETTLEMENT, WAR AND NEUTRALITY. (3) II, S.
Methods of Pacific Settlement. Neutrality. Conflicts between belligerent and neutral rights; Methods short of war. Non-belligerency; Insurgency; Belligerency. Recent developments and trends. Not offered 1940-41.

206 SPECIAL PROBLEMS IN PUBLIC ADMINISTRATION. (3) II Manning
A research course in selected problems of public administration. The problems will be selected in accordance with the needs and desires of students registered for the course. Offered 1941-42.

211 **THE CONSTITUTION AND CIVIL RIGHTS.** (3) I, S Trimble
The American Conception of civil rights as expounded by the Constitutional Fathers and as interpreted by the courts. The social, economic and political aspects and implications of these rights. Special attention will be given to the decisions of the United States Supreme Court. Offered 1941-42.

213 **FEDERAL CENTRALIZATION.** (3) I Trimble
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 1941-42.

215 **ADMINISTRATION OF JUSTICE.** (3)
A study of the history, jurisdiction, organization and functioning of the federal judiciary in the political and economic order. Factors in decision-making, personnel of the courts, relation of the courts to other departments of the government. Not offered 1941-42.

217 **CONTEMPORARY AMERICAN DIPLOMATIC PROBLEMS.** (3) II, S.
The following topics would be included in the scope of the course, the specific subjects varying from time to time: The Monroe Doctrine, Pan-Americanism, the Open Door, arbitration limitations of armament, non-recognition doctrine, problems of the Philippines, American-Canadian relations, American-Mexican relations and such other current issues along this line as may arise from time to time. Offered 1940-41.

Suggested Courses for Preparing for Public Service

For persons interested in preparing for the various branches of government service, the following courses of study are suggested:

Consular and Diplomatic Service. Comparative Government, International Law, American Constitutional Development, American Foreign Relations, Economic Geography, Transportation, Public Finance, Statistics, International Economic Policies, Diplomacy and the Foreign Policy of the United States, American History, Modern European History, Contracts, Conflict of Laws.

Financial Administration. Municipal Government, Public Administration, regulation of Public Utilities, Accounting, Statistics, Public Finance, Money and Banking, Business Law, Auditing, Corporation Finance, Cost Accounting, State and Local Taxation, Income Tax Procedure, Business Law, Personnel Management.

Public Management. Municipal Government, State Government, Public Administration, Personnel Management, Public Welfare Administration, Statistics, Accounting, Public Finance, State and Local Taxation, Legislation, Social Systems, American Constitutional Development, Highway Location, Construction and Maintenance, Streets and Pavements, Water Supply and Waterworks, Sewers and Sewage Disposal.

Public Recording. State Governments, Municipal Government, Accounting, Statistics, Public Finance, Money and Banking, State and Local Taxation, Public Administration, Contracts, Auditing, Cost Accounting.

Public Welfare Administration. Social Psychology, Social Systems, Ethics, Criminology, Individual Development, Psychology of the Child, Human Measurements, Abnormal Psychology, Social Dependence, Social Pathology, Community Welfare Work, Community Organization, State Government, Municipal Government, Statistics, Public Finance, Administration of Justice, Public Administration, Population Problems.

Public Works Administration. Highway Location, Construction and Maintenance, Streets and Pavements, Highway Materials, Water Supply and Waterworks, Sewers and Sewage Disposal, Design of Waterworks and Sewers, Contracts, State and Local Taxation, Public Finance, Accounting, Public Administration.

Public Safety Administration. Criminology, Abnormal Psychology, Personnel Management, Administration of Justice, American Constitutional Development, Constitutional Law, Public Administration, Social Pathology, State Government, Accounting, Community Organization.

PSYCHOLOGY

Professors Miner and White; Associate Professors Dimmick, Asher, and Beaumont and Assistant Professors Newbury, Ratliff, and Croft

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 in 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. This 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 curricula which it recommends to students who desire to prepare for

positions in the Departments of Psychology in colleges; for guidance and personnel work in schools, industry or business; and for mental hygiene, clinical and personal adjustment work.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements for a Major. Prerequisites: Psychology 1 or 2a and b, or 10, or their equivalent. **Required:** The student may choose as his field of concentration either the Biological or the Social Science group of subjects. In either case 15 of the 40 credits in the field must be courses in Psychology 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, 111, 114, 113, 121, 122, 123; in Commerce, Psychology 5, 111, 112, 104, 3; in the Pre-Medical course, Psychology 3, 7, 111, 122, 123, 114; in the Pre-Law course, Psychology 3, 104, 114; in Social Work, Psychology 3, 7, 104, 111, 114, 122, 123.

*1 **ELEMENTARY PSYCHOLOGY. (3) I, II** Beaumont and Ratliff
The course is open only to students taking certain required curricula. A beginning course which presents the fundamental problems of human behavior in the simplest possible manner. Not available for credit to students who have had Psychol. 2a-b or 10.

*2a **GENERAL PSYCHOLOGY. (3) I** Staff
This course is advised for any student who wishes to understand the behavior of himself and others. It runs through the year and is intended to train the student to analyze and explain the main human activities so that he will be able better to control them. This is the best introduction to all other courses in the department. Each week two hours recitation and a double period in the laboratory with illustrative experiments for discussion. Not available for credit to students who have had Psychol. 1 or 10.

*2b **GENERAL PSYCHOLOGY. (3) II** Staff
A continuation of 2a. Not available for credit to students who have had Psy. 1 or 10. **Prerequisite: Psychology 2a.**

10 **INTRODUCTION TO PSYCHOLOGY. (3) I, II** Newbury
A first course which presents the scientific 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. Not available for credit to students who have had Phychol. 1 or 2a-b.

Psychology 2a and 2b, 1, 10 or the equivalent are prerequisite for all other courses in the Department.

3 **INDIVIDUAL DEVELOPMENT. (3) II** Newbury
An introduction to the study of individual differences in relation to personality. The problem of types, the subnormal, the genius; the influence of heredity, training, family, physical constitution, sex, race, culture, climate, and rural or city environment upon the development of individuals.

---

* Courses open to freshmen.

7 PSYCHOLOGY OF THE CHILD. (3) I, II Asher and Beaumont
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.

5 PSYCHOLOGY OF ADVERTISING AND SELLING. (3) I, II Miner and Croft
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.

11 FIELDS OF PSYCHOLOGY. (3) I Beaumont
A survey of the significant contributions in the following fields of psychology: Social, abnormal, experimental, genetic, animals, tests of abilities, personnel administration, and current systems of psychology.

12 INTRODUCTION TO GUIDANCE. (3) I Croft
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.

Courses open only to Upper Division and Graduate Students

104 SOCIAL PSYCHOLOGY. (3) I Dimmick
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 present. Topics given special consideration: Crowds, mob behavior, propaganda, and nationalism.

107 PSYCHOLOGICAL INTERPRETATION (OF THE UNUSUAL). (3) II Beaumont
Unusual human activities and experiences, including hypnotism, thought transference, spirit communications, psycho-theraphy, and other sub-conscious phenomena are considered from the point of view of scientific evidence. An attempt is made to understand the conditions for creative work in literature, art and science.

111 MENTAL MEASUREMENTS. (3) I Asher
An analysis and interpretation of individual and group tests of intelligence, aptitude, skill, and achievement. The history and significance of the testing movement; the construction and evaluation of group tests.

122 PERSONALITY MALADJUSTMENTS. (3) I Dimmick
The course is intended primarily for social workers, teachers, and others who deal with the common maladjustments which they are able to detect and help. The causes of such disturbances in the home, school or social surroundings will be emphasized. The early symptoms of more grave mental disorders will be treated from the standpoint of mental hygiene. The students will be acquainted

with the background of scientific studies which is necessary for the interpretation of problem children and maladjusted adults. Examples of representative cases will supply some training for practical application of the principles discussed.

123 **PRACTICE IN TESTING. (3) II** Dimmick
This course trains the student in the techniques of administering, scoring and interpreting the group and individual intelligence tests and the achievement tests most frequently employed in educational and psychological guidance. Opportunity will also be provided for the diagnosis and evaluation of aptitudes and emotional characteristics as these are related to adjustment problems. The practical rather than the theoretical aspects of diagnostic procedures are emphasized. **Prerequisite: Psychology 111 or its equivalent.**

114 **ABNORMAL PSYCHOLOGY. (3) II** Dimmick
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.

124 **MENTAL HYGIENE. (3) I** Ratliff
The objective of the course is to give a general orientation to the subject of mental hygiene, its historical development, its scope and relation to various sciences. The individual and cultural determinants of behavior will be discussed. Not available for credit to students who have had Hygiene 120a. The courses are taught at the same time, and the student may take the course either as Hygiene or Psychology.

115 **GENETIC PSYCHOLOGY. (3) II** Newbury
Influence of hereditary factors in the development of human behavior, with a critical survey of the problem and the evidence in connection with certain psychological traits such as musical and other special abilities, intelligence, insanity, and interests.

116 **ANIMAL BEHAVIOR. (3) I** Newbury
One hour of lecture, four 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. **Prerequisites: Psy. 2a, 6, or Psy. 1 or 10.**

110 **EXPERIMENTAL PSYCHOLOGY. (3) I** White
Experimental techniques and their application to present psychological problems. The first part of the course acquaints the student with the standard apparatus in psychological laboratories and with the classical experiments the undertaking of which is important in modern psychology. The second part is a consideration of present psychological problems. The student selects one of these problems for detailed experimentation. Examples of such problems are: change of blood pressure with covert and overt expression of emotion; influence of tension upon perception; sensory discrimination. One hour lecture and four hours laboratory a week.

113 **PSYCHOLOGY OF LEARNING. (3) II** White
An experimental study of the learning process with an analysis of types of learning. The lectures are centered around the topics of

the nervous mechanism in learning and the conditioned response. In the laboratory, the conditions which affect learning are studied. Examples of such conditions are: the effect of drugs, the relation to learning of length, amount and complexity of the material, and of the mode of attack. One hour lecture and four hours laboratory a week.

112 **PERSONNEL ADMINISTRATION. (3) II** Miner

The functions of a personnel department in business and industry. The selection and placement of employees, their training, supervision, and motivation; the scientific study of work and fatigue. An introduction to personnel techniques is included.

121 **STUDENT PERSONNEL. (3) II** Miner or Croft

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 in schools and colleges.

125 **EXPERIMENTAL CHILD STUDY. (3) I** Beaumont

An advanced course in the psychology of the normal child. The scientific background of experimental and observational method. Opportunities are provided to work with children in the University Nursery, Pre-School and Elementary School. **Prerequisite: Psychology of the Child.**

120a-d, etc. **INDEPENDENT WORK IN PSYCHOLOGY. (2) I, II** The Staff

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.

Courses open only to Graduate Students

201a **SEMINAR IN PSYCHOLOGY. (1) I** Miner and the Staff

One two-hour discussion each week of some current systematic concepts and of research under way by graduate students and members of the staff.

201b-c, etc. **SEMINAR IN PSYCHOLOGY. (1) I, II** Miner and the Staff

Continuation of 201a. These numbers are provided for registration in succeeding semesters.

203a **PROBLEMS IN PSYCHOLOGY. (2) I** The Staff

Shorter research problems are registered under this number. A minimum of six hours per week is required in consultation with the instructor.

203b-c etc. **PROBLEMS IN PSYCHOLOGY. (2) I, II** The Staff

Continuation of research. These numbers are provided for registration in subsequent semesters.

210a **RESEARCH IN PSYCHOLOGY. (3) I** The Staff

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.

210b-c, etc. **RESEARCH IN PSYCHOLOGY. (3) I, II** The Staff

Continuation of research. These numbers are provided for registration in succeeding semesters.

211 **MENTAL WORK AND FATIGUE. (3) I** White
A laboratory course. Four hours devoted to experiments and one hour discussion each week. Offered 1940-41; not given 1939-40. **Prerequisites: An advanced course in Experimental Psychology and Elementary Statistics or their equivalent.**

212 **THE EMOTIONS. (3) I** White
A laboratory course. Four hours devoted to experiments and one hour discussion each week. Offered 1939-40; not given 1940-41. **Prerequisites: An advanced course in Experimental Psychology and Elementary Statistics or their equivalent.**

213 **THE OBSERVATION PROCESS. (3) II** White
A laboratory course. Four hours devoted to experiments and one hour discussion each week. Not offered 1939-40; given 1940-41. **Prerequisites: An advanced course in Experimental Psychology and Elementary Statistics or their equivalent.**

215 **PSYCHOMETRICS. (3) I** Asher
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. **Prerequisite: Mathematics 24 or its equivalent.**

217 **PSYCHOLOGY OF LANGUAGE. (3) II** White
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 each week. Offered 1939-40; not given 1940-41.

218 **SYSTEMATIC PSYCHOLOGY. (3) I** Miner
An historical and critical study of fundamental concepts and current schools of psychology with a view to their evaluation.

219 **CLINICAL PSYCHOLOGY. (3) II** Dimmick
Two hours clinic and two hours lecture. A survey of clinical work on the diagnosis and adjustment of problem children and adults. The course gives practical training and experience with representative cases.

ROMANCE LANGUAGES AND LITERATURES

Professor Ryland and Assistant Professors Holmes, Horsfield, Schick, Server, and Hernandez

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in Field of Concentration: Forty credits of advanced work in field of Literature, Philosophy and the Arts, during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: Junior standing; in French: R. L. 1a-b, 2a-b, 4a-b or 5a-b, 3a-b or 8a-b; in Spanish: R. L. 1a-b or 4a-b, 5a-b, 7a-b, 9a-b and 10a-b. **Required:** A minimum of 17 credits in advanced work in Romance Languages; R. L. 80a-b. Comprehensive examination in the senior year.

*1a **ELEMENTARY FRENCH. (3) I, II** Staff
This course consists of a thorough drill in pronunciation, using phonetics, elementary grammar including the study of nouns, adjectives, personal pronouns, the regular verbs and a few irregular ones, the writing of simple sentences from English into French, and the reading of easy French including translations and easy conversation.

*1b **ELEMENTARY FRENCH. (3) I, II** Staff
A continuation of 1a. Second half of course includes other parts of the sentence, more difficult sentences, ease in reading and a knowledge of France, its institutions and people. **Prerequisite: 1a or one year of high school French.**

*2a **INTERMEDIATE FRENCH. (3) I, II** Staff
Supplementary reading. A good pronunciation, a thorough knowledge of grammar and verbs, reading and conversation are the aims of this course. Rapid reading of ordinary French and the ability to express oneself in French are stressed. **Prerequisites: 1a-b or two years of high school French.**

*2b **INTERMEDIATE FRENCH. (3) I, II** Staff
Continuation of 2a. **Prerequisite: 2a or three years of high school French.**

3a **FRENCH CONVERSATION AND COMPOSITION. (2) I** Ryland
This course is destined to give students a fair amount of fluency in the use of the spoken language. The grammar will be developed by the writing of exercises out of class. Vocabulary will be built by the use of images rather than by translation, i.e. the direct method. **Prerequisites: 2a-b.**

3b **FRENCH CONVERSATION AND COMPOSITION. (2) II** Ryland
Continuation of 3a. **Prerequisites: 2a-b.**

6a **FRENCH NOVEL AND DRAMA. (3) I, II** Horsfield
Reading of standard texts in prose, fiction, and drama. Verb drill, dictation, composition, conversation drill, based on some text read and memorized. Reports on assigned reading outside of classroom. **Prerequisites: 2a-b.**

6b **FRENCH NOVEL AND DRAMA. (3) I, II** Horsfield
Continuation of 6a. **Prerequisites: 2a-b.**

8a **FRENCH PHONETICS. (3) I** Schick
A scientific study of French sounds based on the Internation System of Phonetic Symbols. **Prerequisites: 2a-b.**

8b **FRENCH PHONETICS. (3) II** Schick
A continuation of 8a. **Prerequisite: 8a.**

16a **CIVILIZATION OF FRANCE, SPAIN, SPANISH AMERICA AND ITALY. (1) I** Staff
Lectures and correlated readings. Required of Romance Language majors.

16b **CIVILIZATION OF FRANCE, SPAIN, SPANISH AMERICA AND ITALY. (1) II** Staff
Continuation of 16a.

80a **TUTORIAL SEMINAR. (1) I, II** Ryland, Server
To prepare seniors for the Comprehensive Examination. Required of all majors in Romance Languages during the senior year.

---

* Courses open to freshmen.

80b TUTORIAL SEMINAR. (1) I, II Ryland, Server
Continuation of 80a. Courses open only to Upper Division and Graduate Students.

103a ADVANCED PHONETICS. (3) I Schick
This course is especially planned for teachers of phonetics both in high school and in college. **Prerequisites: 8a-b and four years of French.**

103b ADVANCED PHONETICS. (3) II Schick
Continuation of 103a. **Prerequisite: 103a.**

109a FRENCH LITERATURE OF THE XIX CENTURY. (3) I Ryland
During the year some of the standard works are studied. Written reports in French on assigned topics. Outside reading of 1500 to 2000 pages to be assigned when the class has been started. Not given 1940-41; offered 1941-42.

109b FRENCH LITERATURE OF THE XIX CENTURY. (3) II Ryland
Continuation of 109a. Not given 1940-41; offered 1941-42.

110a FRENCH LITERATURE OF THE XVII CENTURY. (3) I Schick
A course in the Classic Drama of the XVII Century. During the year the student is expected to read in class chiefly in French, plays from the works of Corneille, Racine, Moliere. Work will be assigned to be done outside of the classroom. Reports to be written in French. Given 1940-41; not offered 1941-42.

110b FRENCH LITERATURE OF THE XVII CENTURY. (3) II Schick
Continuation of 110a. Given 1940-41; not offered 1941-42.

113a ADVANCED FRENCH GRAMMAR, SYNTAX, COMPOSITION. (3) I Ryland
Given 1940-41; not offered 1941-42.

113b ADVANCED FRENCH GRAMMAR, SYNTAX, COMPOSITION. (3) II Ryland
Given 1940-41; not offered 1941-42.

114a-b-c-d etc. INDEPENDENT WORK. (3) I, II Staff
Given every year.

115a FRENCH LITERATURE OF THE XVIII CENTURY. (3) I Holmes
Given 1940-41; not offered 1941-42.

115b FRENCH LITERATURE OF THE XVIII CENTURY. (3) II Holmes
Continuation of 115a. Given 1940-41; not offered 1941-42.

116a FRENCH LITERATURE OF THE XX CENTURY. (3) I Horsfield
Not offered 1940-41; offered 1941-42.

116b FRENCH LITERATURE OF THE XX CENTURY. (3) II Horsfield
Continuation of 116a. Not offered 1940-41; offered 1941-42. Courses open to Graduate Students.

201a LITERATURE OF THE FRENCH RENAISSANCE. (3) I Ryland
A course starting with Francois Villon and including such writers as: Marot, Rabelais, Calvin, Montaigne, Ronsard, DuBellay, Belleau and Regnier. To be given in French. Offered 1940-41; not offered 1941-42.

201b LITERATURE OF THE FRENCH RENAISSANCE. (3) II Ryland
Continuation of 201a. Offered 1940-41; not offered 1941-42.

202a OLD FRENCH. (3) I Holmes
First semester, a study of the syntax and composition of Old French. Not offered 1940-41; offered 1941-42.

202b OLD FRENCH. (3) II Holmes
Reading of texts in Old French. Not offered 1940-41; offered 1941-42.

Spanish

***5a ELEMENTARY SPANISH. (3) I, II** Staff
Fundamentals of the Spanish Language, reading in a simple reader. The purpose of this course is the learning of the essentials of Spanish Grammar and the acquisition of a practical vocabulary.

***5b ELEMENTARY SPANISH. (3) I, II** Staff
Continuation of 5a. **Prerequisites: 5a or one year of high school Spanish.**

***7a INTERMEDIATE SPANISH. (3) I, II** Staff
Review of grammatical principles, composition work, reading Spanish prose and literature. The reading tests are changed every semester. **Prerequisites: 5a-b or two years of high school Spanish.**

***7b INTERMEDIATE SPANISH. (3) I, II** Staff
Continuation of 7a. Prerequisites: 7a or three years of high school Spanish.

9a SPANISH NOVEL AND DRAMA. (3) I Server
Prerequisites: 7a-b.

9b SPANISH NOVEL AND DRAMA. (3) II Server
Prerequisites: 9a.

10a SPANISH CONVERSATION AND COMPOSITION. (2) I Server, Hernandez
This course is destined to give the students a fair amount of fluency in the use of the spoken language. The grammar will be developed by the writing of exercises out of class. Vocabulary will be built by the use of images rather than by translation, i.e. the direct method. The course will be conducted entirely in Spanish. **Prerequisites: 7a-b.**

10b SPANISH CONVERSATION AND COMPOSITION. (2) II Server, Hernandez
Continuation of 10a. **Prerequisite: 10a.**

Courses open only to Upper Division and Graduate Students

104a SPANISH LITERATURE OF THE XVII CENTURY. (3) I Server
Spanish Novel and Drama of XVII Century, Syntax and Composition. Not given 1940-41; offered 1941-42.

104b SPANISH LITERATURE OF THE XVII CENTURY. (3) II Server
Continuation of 104a. Not given 1940-41; offered 1941-42.

106a SPANISH LITERATURE OF THE XX CENTURY. (2) Summer School Holmes
Beginning with the later works of the Generation of 1898, the novel, short story, drama, essay, poetry, criticism of the period. Lectures, recitations, readings, reports. **Prerequisite: Three years of college Spanish.**

---

* Courses open to freshmen.

106b SPANISH LITERATURE OF THE XX CENTURY. (2) Summer School Holmes
Continuation of 106a. **Prerequisite: 106a.**

112a SPANISH LITERATURE OF THE XIX CENTURY. (3) I Server
This course enables the student to become familiar with some of the works of the greatest novelists and dramatists of the first half of the XIX Century. Given 1940-41; not offered 1941-42.

112b SPANISH LITERATURE OF THE XIX CENTURY. (3) II Server
Continuation of 112a. A study of the second half of the XIX Century. Given 1940-41; not offered 1941-42.

Italian

***4a ELEMENTARY ITALIAN.** (3) I Schick
A study of the grammar and composition of Italian.

***4b ELEMENTARY ITALIAN.** (3) II Schick
Prerequisite: 4a or one year of high school Italian.

15a INTERMEDIATE ITALIAN. (3) I Schick
Prerequisites: 4a-b.

15b INTERMEDIATE ITALIAN. (3) I Schick
Continuation of 15a. **Prerequisite: 15a.**

SOCIAL WORK

Associate Professor Palmer, Assistant Professor Haugen and Wolfe, and Lecturers Fink and O'Keefe

The department of social work offers the following opportunities to students: Professional courses on a graduate level; a preprofessional major leading to the A. B. degree in the College of Arts and Sciences; orientation courses for students majoring in other fields.

Graduate Work. The department offers a graduate curriculum of technical courses for students interested in social work as a profession. Prerequisites: Graduate standing and twenty-four semester hours of courses in the social sciences. Students with a bachelor's degree from an accredited institution who lack the prerequisite number of hours in the social sciences may be admitted to graduate courses in social work provided they also carry courses in the social sciences to make up this deficiency.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in Field of Concentration: Forty credits of advanced work in the field of Social Studies and the Biological Sciences, during the junior and senior years, including orientation courses in social work.

Requirements for a Preprofessional Major. Undergraduate students may take a preprofessional major in social work as preparation for professional education. This major and its field of concentration consists of background courses in biology, psychology

and the social sciences and in orientation courses in social work. Students desiring this major should consult the department as early as possible in their college work. Comprehensive examinations are required.

Orientation Courses. The department also offers orientation courses for (1) students in other fields who want to prepare for volunteer work with social agencies, (2) persons in allied professions such as nursing, teaching, the ministry, or home demonstration work who desire to cooperate with social workers in problems of mutual interest.

Preprofessional and Orientation Courses
Open only to Senior and Graduate Students

122 FIELD OF SOCIAL WORK. (3) I Palmer

An introduction to the function, method, and philosophy of contemporary social work. The divisions of the field (case work, group work, community organization, institutional work, social action and research), the relationship of social work to the social sciences and allied professions, and the professional status of social work will be considered. The course is offered for students with a layman's interest in social work, preprofessional social work majors, and students in allied professions such as nurses, teachers, ministers, county agents and home demonstration workers who are interested in cooperating with social workers. Given 1940-41; offered 1941-42.

124 ORIENTATION TO FIELD WORK PRACTICE I. (2) I, II Wolfe

An introduction to field work practice. Lectures, discussions, and observational visits. Given 1940-41; offered 1941-42.

125 ORIENTATION TO FIELD WORK. PRACTICE II. (3) II Wolfe

Qualified, preprofessional majors in social work will be given an opportunity to assist case workers in some of the simpler, more routine aspects of their work. 150 hours to be arranged. **Prerequisites: Social Work 122 and 124 or their equivalent.** Given 1940-41; offered 1941-42.

126a-b INDEPENDENT WORK. (2) I, II Palmer and Wolfe

Affords opportunity to a student capable of working independently to study some problem of special interest. Given 1940-41; offered 1941-42.

127a-d TUTORIAL CONFERENCES AND DISCUSSIONS. (1) I, II Palmer and Haugen

Open only to majors in the department. Given 1940-41; offered 1941-42.

140 PRINCIPLES OF SOCIAL GROUP WORK. (3) S

A critical study of the theories and practices of social group work. Program building applications will be taken from the field of Kentucky folk music, games and dances. Open to graduate students or to persons with experience in that field, with consent of the instructor. Not given 1940-41.

Preprofessional Courses open only to Graduate Students

200 PUBLIC WELFARE ADMINISTRATION. (2) I Wolfe
An introduction to the historical background, philosophy, and methods of tax-supported social work including public assistance, institutional care, and other welfare services. Problems of the interrelationship of federal, state, and local services, financing, standards, and supervision will be among those considered. Given 1940-41; offered 1941-42.

205 CHILD WELFARE SERVICES. (2) II Wolfe
A study of the philosophy, methods, and techniques of child welfare services. Problems relating to the dependent, delinquent, handicapped and neglected children and their treatment and care in their own homes, foster homes, or institutions will be discussed. Given 1940-41; offered 1941-42.

210 PSYCHIATRIC INFORMATION FOR SOCIAL WORKERS. (2) I O'Keefe
An analysis of personality development and behavior patterns with special reference to psychiatric interpretations and their implications for social case work. Given 1940-41; offered 1941-42.

213 GENERIC SOCIAL CASE WORK I. (2) I, II Haugen
A study of generic processes of social work. Includes a consideration of the different approaches to case work; social diagnosis and treatment; techniques of observation, interviewing, recording, evaluation; professional ethics. Given 1940-41; offered 1941-42.

215 SOCIAL STATISTICS I. (2) II Palmer
Application of statistics to social work problems. Recent studies will be examined critically. Attention will be given to registration of social statistics, use of statistics as administrative controls, interpretation and preparation of statistical reports. **Prerequisite: Mathematics 24 or 124 or their equivalent.** Given 1940-41; offered 1941-42.

217 GENERIC SOCIAL CASE WORK II. (2) I, II Haugen and Wolfe
An advanced course built around the theoretical aspect of case work problems encountered by the student in field work and supplemented by discussions of other cases. **Prerequisites: Social Work 213 and 220a or their equivalent.** Given 1940-41; offered 1941-42.

218 TREATMENT OF THE INDIVIDUAL OFFENDER. (3) S
The application of case work principles in the treatment of the offender under the various settings of the correctional system.

220a SUPERVISED FIELD WORK. (4) I, II Haugen
Supervised field work in private or public agency. Given 1940-41; offered 1941-42.

220b SUPERVISED FIELD WORK. (4) I, II Haugen
Supervised field work in a private or public agency. Given 1940-41; offered 1941-42.

227 PROBLEMS OF RURAL SOCIAL WORK. (3) II Palmer
Rural needs and social welfare programs to meet them will be studied in selected rural areas and the findings will be related to larger social welfare problems and programs. The relationship of social work programs to other community programs in these areas will also be considered. Given 1940-41; offered 1941-42.

230 **SOCIAL WELFARE PLANNING.** (3) I — Palmer
Methods and techniques of social welfare planning for the treatment and prevention of social problems. Analysis of needs and resources, coordination of existing agencies, financing and developing chest and council programs, and the interpretation of social work to the community will be among the subjects treated. Given 1940-41; offered 1941-42.

SOCIOLOGY

Professor Best and Assistant Professor Sanders

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, and as preparation for different forms of professional work. They may also be included in the Social Science area of concentration.

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Social Studies during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: Sociology 1, 2. **Required:** Minimum of 15 credits of advanced work in Sociology; Sociology 20a, b. Comprehensive examination in the senior year.

*1 **PRINCIPLES OF SOCIOLOGY.** (3) I, II, S — Best
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.

*2 **MODERN SOCIAL PROBLEMS.** (3) I, II — Best
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.

6 **AMERICAN IMMIGRANTS AND RACES.** (3) II — Best
A study of races and peoples in the United States, and of national policies for dealing with the matter, including a special study of the Negro problem. Not given 1940-41.

18 **SOCIAL ORIGINS.** (3) II — Sanders
A study of the social origins of races, institutions, and cultures, and an analysis of the fundamental trends of social evolution from early primitive times down to the present era.

20a-b **TUTORIAL WORK IN SOCIOLOGY.** (1) I, II — Staff
Conferences, assignment of reading, reports, etc. For senior majors.

---

* Courses open to freshmen.

25 COLLECTIVE BEHAVIOR. (3) I Sanders
A sociological interpretation of group life and of certain aspects of social life, including the building up or shaping of public opinion or social control.

Open only to Upper Division and Graduate Students

101 SOCIAL DEPENDENCE. (3) II Best
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, including social insurance. Given 1940-41; offered 1941-42.

102 SOCIAL PATHOLOGY. (3) II Sanders
A study of illness and accidents, mortality rates, mental and physical impairment or defectiveness, health insurance, and hospitals and similar institutions and agencies, from a sociological point of view. Given 1940-41; offered 1941-42.

103 CRIMINOLOGY. (3) I Best
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 1940-41; offered 1941-42.

105 SOCIAL SYSTEMS. (3) II Sanders
A study of the different social systems propounded or attempted in human society from Plato's Republic down to the present. Given 1940-41; offered 1941-42.

109 THE FAMILY. (3) II Sanders
A study of the family both in its historical aspects and in connection with modern life. Given 1940-41; offered 1941-42.

110 CHILD WELFARE. (3) I
A study of present social attitudes toward the child and of methods and agencies for its care and protection. Given 1940-41; offered 1941-42.

114a-b INDEPENDENT WORK IN SOCIOLOGY. (1) I, II Staff
Study of some special topic by duly authorized students.

121 POPULATION PROBLEMS. (3) II Sanders
A study of movements and trends in population, and with respect to race, age, birth-rates, etc. Given 1940-41; offered 1941-42.

124 METHODS OF SOCIAL INVESTIGATION. (3) I Sanders
A study of the several methods of investigation and research employed in the field of sociology. Two hours lecture; two hours laboratory. Open only to properly qualified students. Given 1940-41; offered 1941-42.

Courses open only to Graduate Students

201a SOCIOLOGY SEMINAR. (2) I Best
Consideration mainly of methods of research and of current sociological literature.

201b SOCIOLOGY SEMINAR. (2) II Best
Continuation of 201a.

Other courses, such as Community Welfare Work (107), Community Organization (112), Rural Social Economy (116), Urban Social Economy (118), Social Treatment of Delinquency (223), and Social Legislation (226) are given from time to time.

ZOOLOGY

Professors Funkhouser, Allen and Brauer, and Dr. Meyer, Mr. Blakey, Mr. Owen, Mr. Oliver, Mr. Smith, Miss Ford, and Mr. McCrea

UPPER DIVISION REQUIREMENTS—**Junior and Senior Years.**

Requirements in the Field of Concentration: Forty credits of advanced work in the field of Biological Sciences, during the junior and senior years, including the major.

Requirements for a Major. Prerequisites: Junior standing; Zoology 1a, 1b. **Required:** Zoology 7a, b, or 157a, b; Zoology 106; Zoology 108a, b; Zoology 114a, b; a minimum of fifteen credits of work above 1a, b; passing a comprehensive examination before graduation.

*1a **GENERAL ZOOLOGY. (4) I** Funkhouser and others
A general course in zoology consisting of lectures, recitations and laboratory work. The first semester is devoted primarily to the study of the invertebrates. Given every year.

*1b **GENERAL ZOOLOGY. (4) II** Funkhouser and others
A continuation of Course 1a. The second semester is devoted primarily to a study of the vertebrates. Given every year.

3a **GENERAL ENTOMOLOGY. (3) I** Allen
A beginning course in the study of insects. Gross anatomy, morphology and life-histories of representatives of the most important orders with special attention to insects of economic importance. Offered 1941-42.

3b **GENERAL ENTOMOLOGY. (3) II** Allen
A continuation of Course 3a. Taxonomy and entomotaxy are given special attention during the second semester. Offered 1941-42.

7a **COMPARATIVE ANATOMY. (4) I** Allen and Meyer
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. Given every year.

7b **COMPARATIVE ANATOMY. (4) II** Allen and Meyer
Vertebrates. Systematic consideration of classes, orders and some families of Vertebrata. Comparative organology and physiology. Given every year.

9 **ANIMAL ECOLOGY AND FIELD BIOLOGY. (3) II** Allen
A general course in ecology with special reference to the zoological aspects of the subject. Offered 1941-42.

11 **NATURE STUDY. (3) S** Allen
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. Given every year.

---

* Courses open to freshmen.

25 GENERAL ANIMAL BIOLOGY. (3) S Meyer

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. Offered 1941-42.

Courses Open Only to Upper Division and Graduate Students

101a HISTOLOGY. (3) I Brauer

Histology of the tissues. A course in the technique of the preparation of animal tissues for microscopic study. Practice in imbedding, standing, sectioning, mounting and identification of tissues. Given every year. **Prerequisites: Zoology 1a-b.**

101b HISTOLOGY. (3) II Brauer

Histology of the organs. A continuation of Course 101a in which the studies are based on the organs and special attention given to pathology. Given every year. **Prerequisite: Zoology 101a.**

102 ORNITHOLOGY. (3) II Funkhouser or Allen

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.

105 PARASITOLOGY. (3) I Meyer

A study of protozoan, helminth, and arthropod parasites of man and other vertebrate hosts, stressing morphology, physiology, taxonomy, life cycles; effects on the host and methods of control. Host examination, laboratory techniques, and demonstrations constitute the greater portion of the laboratory study. Offered 1941-42. **Prerequisites: Zoology 1a, b.**

106 EMBRYOLOGY. (4) II Brauer

A general course in ontogeny. Studies in maturation, fertilization, cleavage, organogenesis and anomalies of development with laboratory work based on the chick and pig. Given every year. **Prerequisites: Zoology 1a-b; 101a.**

108a PRINCIPLES OF ZOOLOGY. (2) I Funkhouser

(Evolution.) An advanced lecture course open only to juniors, seniors and graduate students on the fundamental principles of biology. The first semester is devoted primarily to the study of organic evolution. Three times a week. Given every year.

108b PRINCIPLES OF ZOOLOGY. (2) II Funkhouser

(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.

110a-f INDEPENDENT WORK. (3) I, II Funkhouser, Allen, Brauer

Special problems for individual students who are capable of pursuing independent investigations. Given every year. **For Zoology Majors.**

112 ICHTHYOLOGY. (3) I Allen

Taxonomy of fishes with life-histories and biology of types. Fish structure and physiology. Fish culture and economic ichthyology; care of fishes, aquaria, etc. Offered 1941-42. **Prerequisites: Zoology 1a-b.**

114a ZOOLOGICAL SEMINAR. (1) I Staff

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. Given every year.

114b ZOOLOGICAL SEMINAR. (1) II Staff

A continuation of Course 114a. For students in biological subjects. Given every year.

157a INVERTEBRATE ANATOMY. (4) I Allen and Meyer

An advanced course on the comparative anatomy of invertebrate animals with special attention paid to phylogeny, organology and taxonomy. Given every year.

157b VETEBRATE ANATOMY. (4) II Allen and Meyer

A continuation of Course 157a devoted to the Chordata laboratory techniques in vertebrate anatomy. Given every year. **Prerequisite: Zoology 157a.**

160 ONTOGENY. (2) I Brauer

Lectures on theories and philosophies of organismic development. Reports on the literature. Given every year. **Prerequisites: Zoology 1a and 1b, and at least one course numbered above 100.**

COLLEGE OF AGRICULTURE AND HOME ECONOMICS

STUDENT ASSEMBLIES

Agriculture and Home Economics

Dean Cooper, Assistant Dean Horlacher, Assistant Professors Deephouse, Grundmeier

1 FRESHMAN ASSEMBLY. (Agriculture and Home Economics) (.3) I — Horlacher

The purpose of the series of lectures is to aid freshmen in becoming acquainted with the college and the curriculum and in solving problems which confront them as students. One lecture each week.

2a-b SOPHOMORE ASSEMBLY. (Home Economics) (.3, .3) I, II — Grundmeier

Lectures on vocations in home economics.

3 JUNIOR ASSEMBLY. (Home Economics) (.3) I — Deephouse

Lectures on current problems in home economics.

4 SENIOR ASSEMBLY. (Agriculture and Home Economics (0) II — Cooper, Horlacher

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.

AGRICULTURAL ENTOMOLOGY

Professor W. A. Price, Assistant Professor Townsend

10 AGRICULTURAL ENTOMOLOGY. (3) I, II — Townsend

A general consideration of the fundamentals of insect structures, biology, and classification with frequent discussions of current topics relating to both beneficial and destructive insects. Lectures, 2 hours; laboratory, 2 hours.

11 APICULTURE. (3) II — Price and Townsend

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. Much of the laboratory work has to do with manipulation of bee-keeping equipment and with the bees themselves. Lectures, 2 hours; laboratory, 2 hours

102 ADVANCED AGRICULTURAL ENTOMOLOGY. (3) II, S — Townsend

Life history, control and means of identification of the common and important insects of Kentucky; the making and care of school collections, cages and aquaria. 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.**

103 ECONOMIC ENTOMOLOGY: FRUIT AND GARDEN INSECTS. (3) I Townsend
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.**

104 ECONOMIC ENTOMOLOGY: FARM CROP INSECTS AND ANIMAL PARASITES. (3) II Townsend
Beneficial and injurious insects of common farm crops including those of stored grain and forage; also internal and external insect parasites of domestic animals. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: A. E. 10.**

106a-b SYSTEMATIC AND TECHNICAL AGRICULTURAL ENTOMOLOGY. (3, 3) I, II Townsend
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.**

201a-b ENTOMOLOGICAL PROBLEMS. (3, 3) I, II Price
Investigations of chosen insect problems, including original work. Discussion and assignment of current insect subjects. Time to be arranged. **Prerequisites: A. E. 10, 103, 104.**

AGRICULTURAL EXTENSION

Professor Bryant

1 METHODS IN AGRICULTURAL EXTENSION. (1) II Bryant
Presenting the methods used in extension work in agriculture and home economics; organization, administration and financing; cooperating agencies; proper relationships; organizing the working forces; and methods of making effective programs of work. Open to juniors and seniors. One hour a week.

AGRONOMY

Professors Roberts (Soils), Kinney (Crops), Fergus (Crops), Karraker (Soils), Kelley (Farm Engineering), Valleau (Plant Pathology), Assistant Professor Young (Farm Engineering), Mr. Templeton (Crops), Mr. Myers

4 SOILS. (3) II Karraker
A general study of the origin, properties, and management of soils. Lectures and recitations, 3 hours. Required of sophomores. **Prerequisite or parallel: Chemistry 1b.**

5 SOILS LABORATORY. (2) II Karraker, Myers
Laboratory and field exercises on important soil properties and processes, designed to accompany Agronomy 4. Laboratory, 4 hours. **Prerequisite or parallel: Agronomy 4.**

11 ELEMENTARY FARM CROPS. (3) I, II Fergus, Templeton
A survey course considering the geographical distribution, science of production, and uses of important field crops. Required of freshmen. Lectures and recitations, 2 hours; laboratory, 2 hours.

14 **MARKET GRAIN GRADING AND GRAIN JUDGING.** (2, 2) I, II — Fergus, Templeton
Studies of federal classes and grades of market grains. Attention is also given to show standards. Laboratory, 4 hours. **Prerequisite: Agronomy 11.**

23 **PLANT PATHOLOGY.** (4) II — Valleau
A general survey of the causes, effects of, and methods of control of plant diseases. Recitations, 2 hours; laboratory, 4 hours. **Prerequisites: Botany 1a, 1b.**

105a **ADVANCED CROPS: FORAGE CROPS.** (3) I — Fergus
A comprehensive study of forage crops with special emphasis upon their production in Kentucky. Recitations, 3 hours. **Prerequisites: Agronomy 11; Botany 1b.**

105b **ADVANCED CROPS: TOBACCO AND CEREALS.** (3) II — Kinney
Tobacco and the important cereal crops are studied in considerable detail as regards distribution, soil and climatic adaptation, and technique of production. Recitations and lectures, 3 hours. **Prerequisites: Agronomy 11, or equivalent; Botany 1b.**

106 **FIELD CROP IMPROVEMENT.** (2) II — Kinney
A study of the principles involved and the technique used in breeding field crop plants. Lectures, 2 hours. **Prerequisites: Agronomy 11, or equivalent; A. I. 19.**

110 **SOIL BIOLOGY.** (3) I — Karraker, Myers
A study of the soil organisms and biological soil processes in relation to soil productivity. Lectures, 1 hour; laboratory, 4 hours. **Prerequisite: Agronomy 4; Bacteriology 52 desirable.**

112a-b **SPECIAL PROBLEMS IN SOILS.** (3, 3) I, II — Roberts, Karraker
Study of some special phase of the soil field, not covered in other courses, in which the student is interested. Prerequisites: Agronomy 4 and permission of instructors.

113 **METHODS AND RESULTS IN AGRONOMY EXPERIMENTATION.** (3) I — Roberts
A study of the essentials of reliable field experimentation, including sources of error; a study of field results with emphasis on interpretation. Lectures and discussions, 3 hours. **Prerequisite: Agronomy 4.**

115 **SOIL MANAGEMENT.** (3) I — Roberts
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 4.**

116 **TOBACCO.** (2) II — Kinney
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. Lectures, 1 hour per week; laboratory, 2 hours. Open to juniors and seniors. Not offered in 1941-42.

118 **KENTUCKY SOILS.** (3) S — Karraker
The classification and management of Kentucky soils. Lectures, reports, and a five-day field trip. **Prerequisite: Agronomy 4.**

119 ORIGIN, NATURE, AND CLASSIFICATION OF SOILS. Karraker
(3) II
The origin and nature of soils are considered with particular reference to their classification. Lectures and recitations, 3 hours. **Prerequisites: Agronomy 4, and permission of instructor.**

121 WEEDS. (3) Templeton
The importance, characteristics, identification, and control of weeds with emphasis on identification and control of Kentucky weeds. Lectures and discussions, 3 hours. **Prerequisites: Botany 1b, or equivalent, and permission of instructor.**

202a-b SPECIAL PROBLEMS IN CROP PRODUCTION. Kinney, Fergus
(2, 2) I, II
An intensive study of results of research relative to particular problems in crop production. **Prerequisite: Permission of instructor.**

203a-b LITERATURE OF PLANT PATHOLOGY. (3, 3) I, II Valleau
A survey of the literature of plant pathology. **Prerequisite: Agronomy 23.**

204a-b RESEARCH IN SOILS. (3, 3) I, II Roberts, Karraker
Prerequisite: Permission of the instructors.

207a-d SEMINAR. (1 credit each semester) I, II Agronomy Staff

ANIMAL INDUSTRY

*Professors Good (Animal Husbandry), Horlacher (Animal Husbandry), Ely (Dairying), Wilford (Animal Husbandry), Garrigus (Animal Husbandry), Associate Professor Insko (Poultry), Assistant Professors Barkman (Dairying), Morrison (Dairying), Steele (Genetics), Ringrose (Poultry)

4 LIVESTOCK MANAGEMENT. (1) II Garrigus
Strictly practical phases of livestock production are handled in this course, including preparation of animals for show and sale ring. Laboratory, 2 hours. **Prerequisite: A. I. 31.**

13 LIVESTOCK JUDGING. (2) II Garrigus
Judging beef cattle, sheep, swine, draft horses and mules. Practice in writing reasons and giving reasons orally. Laboratory, 4 hours. **Prerequisite: A. I. 31.**

19 GENETICS. (3) I, II Steele
The fundamental laws of heredity, including variation, Mendelian inheritance and the fundamental principles of breeding. Lectures, 3 hours. Not open to freshmen.

20 PRINCIPLES OF ANIMAL NUTRITION. (3) II Wilford
Fundamental principles involved in the digestion, absorption and assimilation of feeds by domestic animals; uses of the different nutrients; feeds, rations and their nutritive ratios; practical feeding of livestock. Required of sophomores. Lectures, 3 hours. **Prerequisite: Chemistry 1a.**

---

* Emeritus, July 1, 1941.

25 JUDGING DAIRY PRODUCTS. (1) I Barkman

A study of the accepted standards of judging market milk, butter, ice cream, cheese, and starters, and practice in scoring these products in accordance with standard methods. Laboratory, 2 hours.

26 ADVANCED LIVESTOCK MANAGEMENT. (1) I Garrigus

Individual intensive application of correct management practices. Primarily for those who intend to manage livestock farms. Laboratory, 2 hours. **Prerequisite: A. I. 4 and 31.**

27 WORK STOCK PRODUCTION. (3) I Horlacher

Development of the horse and mule industry; judging, breeding, feeding, management and marketing. Not offered 1941-42. Lectures, 2 hours; laboratory, 2 hours.

28 LIGHT HORSE HUSBANDRY. (2) II

A brief study of the breeds of light horses. Equitation and driving will be emphasized. Judging, feeding, training, diseases, unsoundness and general care will be given attention. Lecture, 1 hour; laboratory, 2 hours. Not open to freshmen and sophomores.

31 MARKET CLASSES AND BREEDS OF LIVESTOCK. (3) I Garrigus

A course to familiarize students with the present market requirements and with the origin and development of the more important breeds of farm animals. Required of freshmen. Lectures, 2 hours; laboratory, 2 hours.

32 FARM POULTRY PRODUCTION. (3) II Ringrose

A general course dealing with the practical application of the principles of poultry husbandry to general farm conditions; breeds and breeding; selection and culling; incubation and brooding; feeding, housing and disease control; marketing poultry products. Required of freshmen. Lectures, 2 hours; demonstration, 2 hours

33 FARM DAIRYING. (3) I Ely, Morrison

The place of dairying in agriculture, factors affecting the secretion, composition, physical and chemical properties of milk and cream, the food value of dairy products, common dairy calculations, clean milk production, common farm dairy processes, such as separation, churning, and storage of dairy products. Required of freshmen. Lectures, 2 hours; laboratory, 2 hours.

34 JUDGING DAIRY CATTLE. (2) II Ely

Selection of sires, cows and heifers with due consideration for breed and dairy type, and the application of the principles involved in the problem of herd improvement. To be taken concurrently with or preceded by A. I. 137. The judging team will be selected from this class. Laboratory, 4 hours.

35 HATCHERY MANAGEMENT. (3) II Ringrose

The fundamental principles involved in the operating of mammoth incubators and brooders; hatchery operation and management; factors influencing the developing avian embryo; practice in the operation of mammoth incubators and storage brooders. Lecture, 1 hour; laboratory, 4 hours. **Prerequisite: A. I. 32 and permission to register.**

102 FARM BUTCHERING AND CURING MEATS. (4) I, II Wilford

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. 31.**

104 ANIMAL BREEDING. (3) I Steele

Breeding plans, inbreeding, linebreeding, outcrossing; disease resistance; inheritance of lethal characters; genetics of sex, heredity in cattle, sheep, swine and laboratory animals. To be given alternate years. Not offered 1941-42. Lectures, 3 hours. **Prerequisite: A. I. 19.**

105 BEEF PRODUCTION. (3) II Garrigus

Development of the beef cattle industry in this and other countries; feeding, breeding and management of beef cattle. Laboratory work consists of judging beef cattle and practical problems relating to the industry. Lectures, 2 hours; laboratory, 2 hours. **Prerequisites: A. I. 20 and 31.**

106 PORK PRODUCTION. (3) I Wilford

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. **Prerequisites: A. I. 20 and 31.**

107 SHEEP PRODUCTION. (3) II Horlacher

Breeds and market classes; judging, breeding, feeding, management and marketing of sheep; production and marketing of wool. Lectures, 2 hours; laboratory, 2 hours. **Prerequisites: A. I. 20, 31.**

110 ADVANCED LIVESTOCK JUDGING. (3) I Garrigus

Primarily for judging team candidates. Open only to those who have made good standings in the prerequisite courses. Not offered 1941-42. Lectures and laboratory. **Prerequisites: A. I. 13 and 31.**

111a-b SPECIAL PROBLEMS IN ANIMAL HUSBANDRY. (3, 3) I, II Animal Husbandry Staff

119 GENETICS. (3) Steele

A study of the fundamental laws of heredity. For advanced undergraduate and graduate students. Lectures, 3 hours.

121 ADVANCED GENETICS. (3) I, II Steele

Study of laws of heredity as they are applied in plant and animal improvement. **Prerequisite: A. I. 19 or 119.**

125 DAIRY CATTLE FEEDING AND MANAGEMENT. (3) II Ely

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.**

127 POULTRY BREEDING. (3) I Steele

Fundamental genetic principles involved in poultry breeding; disease resistance; inheritance of egg production and related characters; development of breeding programs. To be given in alternate years. Offered 1941-42. Lectures, 3 hours. **Prerequisite: A. I. 19.**

129 DAIRY BACTERIOLOGY. (4) I Morrison

The application of bacteriological principles to the production and processing of milk and other dairy products involving methods of entrance of micro-organisms into dairy products, effects of their growth and methods for their control. Lectures, 2 hours; laboratory, 4 hours. **Prerequisite: Bacteriology 52, or 102.**

130 BUTTER AND ICE CREAM. (3) I Barkman

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. 33.**

131 MARKET MILK AND CHEESE. (3) II Morrison

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. 33.**

132a-b SPECIAL PROBLEMS IN DAIRYING. (3, 3) I, II Dairy Staff

133a-b SPECIAL PROBLEMS IN POULTRY. (3, 3) I, II Ringrose

134 ADVANCED POULTRY PRODUCTION. (3) I Ringrose

Fundamental studies in control measure of poultry diseases, nutrition, marketing, flock management and replacement. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: A. I. 32.**

136 TECHNICAL CONTROL OF DAIRY PRODUCTS. (3) II Morrison

Various chemical and bacteriological tests used in the control of production or processing of dairy products. Given in alternate years. Offered 1941-42. Laboratory and recitations, 6 hours. **Prerequisites: A. I. 33, 129.**

137 DAIRY CATTLE BREEDING. (3) II Ely

The application of genetics to present day problems of breed and herd improvement, an analysis of progress and mistakes of the past compared with present day approved methods of interpreting records, the progeny test of sires, type classification, selective registration as employed by leading breeders. The rise and fall in popularity of prominent families and strains within the leading dairy breeds. To be given in alternate years. Not offered 1941-42. Lectures, 3 hours. **Prerequisite: A. I. 19.**

202a-b RESEARCH IN MEATS. (3, 3) I, II Wilford

Problems involving original investigation.

203a-b RESEARCH IN ANIMAL GENETICS. (3, 3) I, II Steele

Problems involving original investigation.

204a-b RESEARCH IN DAIRYING. (3, 3) I, II Ely, Morrison

Special problems involving original investigation on the part of the student in either dairy production or dairy manufacturing.

205a-b RESEARCH IN HORSE HUSBANDRY. (3, 3) I, II Horlacher

Problems involving original investigation.

206a-b RESEARCH IN POULTRY SCIENCE. (3, 3) I, II Ringrose

Problems involving original investigation.

207a-b RESEARCH IN SHEEP HUSBANDRY. (3, 3) I, II Horlacher

Special research problems.

209a-b ANIMAL HUSBANDRY SEMINAR. (1, 1) I, II Staff

210a-b RESEARCH IN BEEF CATTLE HUSBANDRY. (3, 3) I, II Garrigus

Problems involving original investigation.

211a-b RESEARCH IN SWINE HUSBANDRY. (3, 3) I, II Wilford

Problems involving original investigation.

ANIMAL PATHOLOGY

Professors Dimock, Hull

116 DISEASES OF DOMESTIC ANIMALS. (4) II Dimock

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, 3 hours; laboratory and reference reading, 2 hours.

126 ANATOMY AND PHYSIOLOGY OF DOMESTIC ANIMALS. (4) I Hull

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 livestock judging, butchering, animal nutrition, animal breeding, and animal diseases. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite: Junior standing.**

201a-b INVESTIGATIONS IN ANIMAL DISEASES. (4, 4) I, II, S Dimock

Prerequisite: A. P. 126 and 116 or equivalent. In the summer session this course is open only to persons who have a veterinary degree

FARM ECONOMICS

Professors Nicholls, Beers, Associate Professor Allen, Assistant Professors Oyler, Bradford, MacFarlane, Mr. Williams

4 AGRICULTURAL ECONOMICS. (3) I, II Bradford

A study of the agriculture of the United States using historical, geographic and economic approaches. The course gives consideration to production organization in agriculture, to the regionalization of production, to demand and to marketing functions, to the economic position of agriculture in the national economy, and to a review of national policies and programs for agriculture. This course provides a basis for the study of farm management and for further courses in agricultural economics. Required of sophomores. Lectures, problems and discussions, 3 hours. **Prerequisite: Economics 1.**

107a-b SPECIAL PROBLEMS IN FARM MANAGEMENT. (3, 3) I, II Nicholls

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 livestock, or the problem of profitable farm organization in a specified community. **Prerequisite: Farm Economics 113.**

113 FARM MANAGEMENT. (3) I, II Bradford

A study of the organization and operation of farms; and of the major factors contributing to securing consistently high farm earnings. Problem assignments which assist students to apply the principles of economics and farm management to farm organization plans are given. Required of juniors. Lectures, 3 hours. **Prerequisite: Farm Economics 4.**

114 ADVANCED FARM MANAGEMENT. (3) I Nicholls

This course consists of a fuller study of the principles of farm management considered in Course 113. A study of the current and recent literature of farm organization and management will be made and some consideration will be given to farm management as observed in European countries when such has a bearing on management principles in this country. **Prerequisite: Farm Economics 113.**

115 TYPES AND SYSTEMS OF FARMING. (3) II Nicholls

Included in this course will be a critical study of the business organization and management of successful Kentucky farms. Several field trips will be made to farms whose operators have achieved outstanding financial success while at the same time maintaining or increasing productivity of their farms. **Prerequisite: Farm Economics 113.**

116 LAND ECONOMICS. (3) I Allen

A study of land resources in relation to present and prospective needs. An examination of the economic characteristics of land and of the bases for classifying land will be made. Land income, land values and tenure will be considered in relation to land use and conservation. **Prerequisite: Farm Economics 4, or consent of instructor.**

117a-b-c CURRENT LAND PROBLEMS. (1, 1, 1) S

A study of the requirements for and the supply of agricultural land in the United States. A consideration of the contribution of land classification and land use planning toward the development of socially desirable policies and programs for using natural resources. Not offered 1941.

118 LAND-USE PLANNING. (3) II Allen

A study of the national needs and national policies which led to the land-use pattern of 1930; social and economic implications of the destruction and loss of soil resources; contribution and limitations of land use planning toward the development of socially desirable programs for the use of natural resources. Particular attention will be given to the land-use problems of the Southern United States. **Prerequisite: Farm Economics 116 or consent of instructor.**

119 LAND VALUE AND APPRAISAL. (3) II Allen

Consideration will be given to the capitalization process, and other devices for valuing farm land; thoroughgoing study will be made of the appraisal procedures of the Federal Land Banks and of other credit institutions; particular attention will be given to special difficulties which arise in appraising and valuing land in the state of Kentucky and in the southern United States. **Prerequisite: Farm Economics 116 or consent of instructor.**

124a-b-c FARM MANAGEMENT FOR A CHANGING AGRICULTURE. (1, 1, 1) S Bradford
An application of recent developments in agriculture to the management of individual farms. Extent and methods of making adjustments in farm organization. The use and influence of mechanization, credit and governmental programs will be examined for both self-sufficing and commercial farming. The use of the principles of farm management to meet a changing agriculture will receive emphasis.

125 FARM ACCOUNTING. (3) II Bradford
Inventories and enterprise accounts, farm records. Principles in making and interpreting farm accounts and their application to the organization and management of farms. Lecture 2 hours; laboratory 2 hours. **Prerequisite: Farm Economics 113.**

201a-b RESEARCH IN FARM ECONOMICS. (3, 3) I, II Nicholls
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.

203a-b AGRICULTURAL ECONOMICS SEMINAR. (1, 1) I, II Staff
Discussions and papers on methods, problems, current literature and research in the field of agricultural economics.

204a-b ECONOMICS OF PRODUCTION AS APPLIED TO AGRICULTURE. (3, 3) I, II MacFarlane
This course places emphasis upon the fundamental considerations essential to the study of production organization in the economy of modern agriculture. Theoretical analysis will be applied to such questions as the combination of the agents of production, scale and intensity of production, comparative advantage and interregional analysis, and to an evaluation of national agricultural policies and programs. Students will be expected to do supervised investigation of specific problems in the field. **Prerequisite: Consent of instructor.**

206 COST, PRICE, AND PRODUCTION RELATIONSHIPS IN AGRICULTURE. (3) II MacFarlane
A seminar in which consideration is given to the different concepts of cost which are encountered in the agricultural research field; considerable attention is paid the applicability of the traditional cost-price rationale in the agricultural industry. Members of the seminar will be given an opportunity to appraise the advanced non-mathematical literature in this field. **Prerequisite: Consent of instructor.**

Courses in Rural Sociology

140 RURAL SOCIOLOGY. (3) I Beers
Introductory study of rural people and their communities; the distribution, mobility and vitality of rural population; characteristics of the rural community, rural groups and institutions, orientation to rural community problems. Lectures, recitations, individual community reports. **Prerequisite: Sociology 1 or Economics 1.**

141 RURAL LEADERSHIP AND SOCIAL CHANGE. (3) II Williams
Rural culture and tradition; social processes in rural life; rural-urban relationships; survey of modern and contemporary changes within the rural community or vitally affecting farm life; special emphasis upon attitudes, personality and the relation of leadership to change; leadership problems and methods in agriculture and rural life. Lectures, recitations, student projects. **Prerequisite: F. E. 140 or consent of instructor.**

142a-c **RURAL LIFE.** (1, 1, 1) S — Beers

The responses of rural people and their social organization to current trends in southern states and in the nation; population, community; rural groups and institutions; rural attitudes. Not offered 1941-42.

145a-b **SPECIAL PROBLEMS IN RURAL LIFE.** (3, 3) I, II — Oyler

Supervised individual study in selected sub-fields of rural sociology. Population, standards of living, neighborhood and community change, and rural institutions are among the available fields for investigation. **Prerequisite: Consent of instructor.**

240 **RURAL ORGANIZATION.** (3) II — Beers

Seminar. Organizational behavior of farmers; social analysis of farmers' organizations and other rural interest groups, national, state, local; comparative study of group types; trends affecting the social structure of rural communities; agricultural planning and social planning in rural communities. **Prerequisite: Consent of instructor.**

241 **RURAL SOCIAL ATTITUDES.** (3) II — Williams

Seminar. The nature and genesis of rural attitudes and their relation to rural social control. Analysis of contemporary rural attitudes and opinions. **Prerequisite: Consent of instructor.**

242a-b **RESEARCH IN RURAL SOCIOLOGY.** (3, 3) I, II — Beers, Oyler, Williams

Individual graduate research with correlated study of rural social research types and methods. **Prerequisite: Introductory course in Statistics.**

FARM ENGINEERING

Professor Kelley, Assistant Professor Young

9 **FARM MOTORS.** (3) II — Kelley, Young

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.

10 **MECHANICS OF THE FARMSTEAD.** (3) I — Kelley, Young

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 recitations, 2 hours; laboratory, 2 hours.

12 **FARM STRUCTURAL ENGINEERING.** (3) I — Young

A combination drawing and shop course in the construction, care and repair of farm buildings and equipment, especially designed for students preparing to teach vocational agriculture. Lecture, 1 hour; laboratory, 4 hours a week.

13 **GENERAL FARM SHOP.** (3) II — Young

A course in metal work and tools, including plumbing, soldering, hot and cold metal and the repair of farm machinery. Lecture, 1 hour; laboratory, 4 hours.

101a-b **SPECIAL PROBLEMS.** (3, 3) I, II, S — Kelley, Young

Prerequisite: F. E. 10.

102 DAIRY ENGINEERING. (3) I Kelley
A study of the engineering principles involved in the construction, 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.**

104 RURAL ELECTRIFICATION. (2) I Kelley
This course is designed to give students information on how to obtain electric service and on the problems involved in the selection, operation and care of electrical equipment in the home and on the farm. Open to juniors and seniors. Lectures and recitations, 2 hours.

105 ENGINEERING PRINCIPLES AND PRACTICES IN SOIL MANAGEMENT. (3) II Kelley, Young
Surveying, mapping, and determining areas of farm land; designing farm drainage systems; problems in controlling erosion by terraces and gully structures. Lecture, 1 hour; laboratory, 4 hours.

HORTICULTURE

Professors Olney, Elliott, Assistant Professors Waltman, Emmert, Mr. Wiggin

1 GENERAL HORTICULTURE. (3) I, II Olney
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. Required of sophomores. Lectures, 3 hours.

103 POMOLOGY. POME FRUITS. (3) I Waltman
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.**

104 POMOLOGY. STONE FRUITS. (3) I Waltman
A detailed study of commercial peach, plum, and cherry growing. Not offered 1941-42. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: Horticulture 1.**

105 POMOLOGY. SMALL FRUITS. (2) I Waltman
A detailed study of the care and management of commercial plantings of strawberries, raspberries, and other bush fruits. Lecture, 1 hour; laboratory, 2 hours, first half; lectures, 2 hours a week, last half. **Prerequisite: Horticulture 1.**

106 GREENHOUSE CONSTRUCTION AND MANAGEMENT. (2) I Emmert
A study of the details of greenhouse construction and management. Lecture, 1 hour; laboratory, 2 hours.

108 VEGETABLE FORCING. (3) I Emmert
A study of the culture of vegetable crops under glass. Not offered 1941-42. Lectures, 2 hours; laboratory, 2 hours.

110 VEGETABLE GARDENING. (3) I Emmert
A study of the fundamental principles of vegetable growing, and the farmer's home garden. Lectures, 2 hours; laboratory, 2 hours.

111 MARKET GARDENING. (3) I Emmert
A detailed study of commercial vegetable growing with special emphasis on crops suited to Kentucky conditions. Lectures, 2 hours: laboratory, 2 hours. **Prerequisite: Permission of instructor.**

113 LANDSCAPE GARDENING. (3) II Elliott
A study of lawns, trees and shrubs and their arrangement for home and school yard planting. Lectures, 2 hours; laboratory, 2 hours.

114 ADVANCED LANDSCAPE GARDENING. (3) II Elliott
Special attention is given to design and the use of plant materials. **Prerequisite: Horticulture 113.**

115a-b SPECIAL PROBLEMS. (3, 3) I, II Olney and Staff
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 the approval of the instructor.

117 FLORICULTURE. (3) II Elliott
A study of the fundamental principles of flower growing under glass and in the garden. Lectures, 2 hours; laboratory, 2 hours.

118 ADVANCED FLORICULTURE. (3) II **Elliott**
A detailed study of the culture and arrangement of garden flowers for the home grounds. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: Horticulture 117.**

119 PLANT PROPAGATION. (3) II Elliott
A detailed study of the principles and methods of propagating plants. Lectures, 2 hours; laboratory, 2 hours. **Prerequisites: Botany 1a, 1b; Horticulture 1.**

200a-b SEMINAR. (1, 1) I, II Olney and Staff

201a-b RESEARCH IN HORTICULTURE. (3, 3) I, II Olney and Staff
Prerequisite: Permission of the instructors.

Courses in Forestry

1 OUTLINE OF FORESTRY. (3) I Wiggin
Designed as a general introduction to forestry. A guide to a general understanding of what forestry is, how it is developing, what it is doing and why it is needed. Kentucky's forest and woodlot problems.

101 FARM WOODLANDS. (3) I Wiggin
A course covering those phases of forestry applicable to the silviculture, management and economics of farm woodlots. Silvics of important Kentucky species, woodlot regeneration, protection, improvement, harvesting and wildlife. Structure and uses of wood. Preservation of farm timbers. **Prerequisite: Junior standing.**

MARKETS AND RURAL FINANCE

Professors H. B. Price, McVey, Associate Professor Card, Assistant Professors White, Clark

108 MARKETING. (3) I, II White
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. Required of Juniors. Lectures, 3 hours. **Prerequisite: Economics 1.**

109 COOPERATIVE MARKETING. (3) II White
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.**

110 ADVANCED MARKETING. (3) I Price
Marketing, livestock, 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.**

111 AGRICULTURAL PRICES. (3) I Card
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.**

112 FARM FINANCE. (3) II Clark
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.**

114 AGRICULTURAL STATISTICS. (2) I Card
Sources, methods of presentation and analysis of agricultural statistices with special reference to agricultural census, crop and livestock estimates; collection, tabular and graphic presentation of data; index numbers; analysis of time series; simple graphic curvilinear correlation. **Prerequisite: Mathematics 24 or 124.** Not open to freshmen or sophomores.

132a-b-c CURRENT PROBLEMS IN AGRICULTURAL ECONOMICS. (1, 1, 1) S Price, Card
This course emphasizes recent developments in agricultural economics, agricultural marketing, production and farm credits; federal production adjustment programs, organization of agricultural credit, marketing agreements and industrial codes. **Prerequisite: Farm Economics 4.**

133 AGRICULTURAL POLICY. (3) II Price
General development of the principles underlying agricultural policy, including analysis of the place of agriculture in the general economy, goals or objects of agricultural policy, causes and development of the present agricultural problem, appraisal of current or proposed programs and legislation for remedial action. **Prerequisite: Farm Economics 4.**

202a-b SPECIAL PROBLEMS IN MARKETING AND RURAL FINANCE. (3, 3) I, II Staff
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.**

203a-b SEMINAR. (1, 1) I, II Staff
Analysis of current problems in the field of marketing and rural finance.

204 RESEARCH IN MARKETING. (2) II Price

Types of research in marketing. Laying out the research problem. Analysis of data. **Prerequisite: M. & R. F. 103.**

205 THEORY OF AGRICULTURAL PRICES. (3) II White

Variability and flexibility in the price structure in terms of price behavior and with respect to some important factors influencing long time, cyclical and seasonal changes in agricultural prices. Attention will be given to the effects of changes in industrial production and consumer incomes, foreign demand, mechanization of agriculture, production cycles, middlemen's margins, etc. Theoretical implications of programs of the United States and foreign countries for stabilizing and raising agricultural prices and incomes through marketing agreements, production control, export subsidies, and the like, are discussed. **Prerequisites: Markets and Rural Finance 111 and Commerce 115**

206 RESEARCH METHOD IN AGRICULTURAL PRICES. (3) I Card

This course is primarily a critical and historical study of the application of various methods of analysis to specific types of price problems, including the assembling of data, the theory and practice of sampling, supply-price relationships and methods of testing the results of analysis. Research methods in the field of agricultural prices are studied and the objectives of such research are scrutinized through critical reading or price literature. Published reports are classified according to the methods used and the objectives presented and project outlines for prospective research are drawn up. **Prerequisites: Markets and Rural Finance 114 and Commerce 115.**

207 THE EFFECT OF POLITICAL, ECONOMIC AND CULTURAL FORCES BEARING ON RURAL LIFE IN AMERICA. (2) II McVey

A course in the heritages and political and economic forces that have affected the life and the property of the people engaged in agriculture. The period covered is from colonial times to the present. Lectures, readings and assigned topics. Lectures, 2 hours.

HOME ECONOMICS

Professor Erikson, Assistant Professors Barkley, Deephouse, Grundmeier, Seeds, Mumford, Miss Latzke, Miss Helton, Mrs. Beiter, Miss Moore, Miss Morrison, Miss Clay

3 FOOD AND NUTRITION. (4) I, II Erikson

The study of properties and nutritive values of food and its conversion into the matter and energy of the body. Lectures, 2 hours; laboratory, 4 hours. **Prerequisites: Chemistry 7, A. & P. 3.**

6a FOODS. (3) I Barkley and Moore

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. Lecture, 1 hour; laboratory, 4 hours.

6b FOODS. (3) II Barkley

The selection, purchase and preparation of food in connection with meal planning and service. Lecture, 1 hour; laboratory, 4 hours. **Prerequisite: H. E. 6a.**

16 ELEMENTARY NUTRITION. (3) I Grundmeier
Nutrition 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, 3 hours. Not open to students registered in home economics.

26 TEXTILES. (2) I, II Latzke
A study of fundamental weaves, fibers, and finishes with reference to the selection of appropriate fabrics from both economic and artistic viewpoints. Lecture, 1 hour; laboratory, 2 hours.

29 COSTUME DESIGN. (3) I, II Seeds
Appropriate costuming for the individual. Analysis of physical and mental makeup followed by study of costume color, line and texture for the individual and her costume needs. Original costumes are planned. Lecture, 2 hours; laboratory, 2 hours. **Prerequisite: Art 30a.**

33 HEALTH OF THE FAMILY. (3) I, II Erikson
Study of the factors that influence health; the agencies and forces to be utilized for health improvement; applications of modern science to health; prevention of specific diseases; practice in the techniques of home nursing. Lectures, 3 hours.

34 DIETETICS FOR NURSES. (4) I, II Moore
Normal nutrition and the modifications of the normal diet in the treatment of disease. The laboratory includes practice in food preparation and the planning and preparation of diets for disease conditions. Lectures, 2 hours; laboratory, 4 hours. **Prerequisite: A. & P. 6.**

35 NUTRITION AND PUBLIC HEALTH. (2) II Erikson
Nutrition as it affects social and family problems in the field of public health. Consideration is given to the food budget on different economic levels. Lectures, 2 hours. Not open to students registered in home economics. This course does not count toward the B.S. degree in Home Economics.

41 HOUSING. (3) II Deephouse
The first part of the course deals with the social and economic problems of housing American families. The second half deals with the problems of house buying and house planning from the standpoint of the consumer. Lectures, 3 hours.

46 CLOTHING. (3) I, II Latzke
Fundamental principles of clothing construction applied to the making of garments. Study and use of commercial patterns; adaptation and alteration of commercial patterns to achieve individual designs. Lecture, 1 hour; laboratory, 4 hours. **Prerequisites: H. E. 26, 29.**

47 ADVANCED CLOTHING. (3) I, II Seeds, Latzke
Individuality in costume is emphasized. Costumes are designed, draped and constructed without the use of commercial patterns. Lecture, 1 hour; laboratory, 4 hours. **Prerequisite: H. E. 46.**

81 INSTITUTION MARKETING. (3) I Helton
The economics of food and supplies for institutions. Field trips are made to wholesale houses, distributing centers, food factories. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: Economics 1.**

82 **INSTITUTION FOODS. (4) I, II** Helton
Large quantity food preparation and service. Emphasis is placed on standard methods and cost accounting. Lectures, 2 hours; laboratory, 4 hours. **Prerequisite: H. E. 6b.**

105a-b **SEMINAR IN NUTRITION. (1, 1) I, II** Erikson
Investigations of recent research on nutrition. Lecture, 1 hour. **Prerequisite: Senior or graduate standing.**

106a-b **SEMINAR IN TEXTILES AND CLOTHING. (1, 1) I, II** Seeds, Latzke
Investigations of special textile and clothing problems. One hour. **Prerequisite: Senior or graduate standing.**

109 **NUTRITION. (4) II** Erikson
Metabolic processes of the body in normal and diseased conditions, correlating the metabolic changes due to disease with diet therapy. The laboratory includes sugar tolerance tests; protein and mineral balance experiments; biological tests for vitamins. It also includes practice in the planning, calculation and preparation of therapeutic diets. Lectures, 2 hours; laboratory, 4 hours. **Prerequisite: H. E. 124.**

112 **PUBLIC SCHOOL NUTRITION. (3) I, II** Grundmeier
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. **Prerequisite or parallel: H. E. 124.**

115 **CHILD CARE AND DEVELOPMENT. (3) I, II** Mumford, Beiter
Study of the 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 and participation in nursery school activities. Meetings with parents are required. Lectures, 2 hours; laboratory 2 hours. **Prerequisites: A. & P. 3, Psychology 7.**

116 **ADVANCED COSTUME DESIGN. (3) I** Seeds
A survey of costume throughout the ages. Planning of modern costumes. Lectures, 2 hours; laboratory, 2 hours. **Prerequisites: H. E. 29.**

117 **INTERIOR DECORATION. (3) I, II** Seeds
A study of color, line and texture as they are used to create effective interiors suited to modern living. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: H. E. 26, Art 30b.**

119a-b **EXPERIMENTAL COOKERY. (3, 3) I, II** Grundmeier
Study of factors that affect the results obtained in cooking and food preparation processes. Experimental work is carried out under controlled conditions and special emphasis is placed on physical, chemical and mechanical conditions. **Prerequisites: Chem. 7, H. E. 6a, or special permission.**

121a-b **SPECIAL PROBLEMS. (2, 2) I, II** Staff
Intensive work on specific phases in any of the fields of home economics, namely: food preparation, meal planning and service, nutrition, clothing, textiles, costume design, housing, child development, institution economics, consumer problems, home management, dietetics.

122a-b FIELD WORK IN NUTRITION. (2, 2) I, II Grundmeier

Nutrition problems at different age levels with emphasis on the child in the public school, correlated with surveys and experimental studies to show the relation between diet selection and its physical and mental effects. Lecture, 1 hour; laboratory, 2 hours. **Prerequisite: H. E. 112 or special permission.**

124 DIETETICS. (4) I, II Grundmeier

Daily food requirements at different age levels, emphasis being given to satisfying the divergent needs of families and other groups. Practice is given in normal dietaries. Lectures, 2 hours; laboratory, 4 hours. **Prerequisites: H. E. 3, 6b, A. & P. 3.**

125 CONSUMER PROBLEMS. (3) I Deephouse

A study of consumer buying and its social and economic aspects. An analysis of the common problems of the manufacturer, the merchant and the consumer in order to understand better the needs and responsibilities of each group. Lectures, 3 hours. **Prerequisite: Econ. 1.**

126 FAMILY LIVING. (3) I Mumford

The inter-locking relationships of community and family living. Emphasis is given to the influence of home conditions on the members of the family, and the results of such influence on attitudes and behaviors that affect community living. Lectures, 3 hours. Attendance at monthly parent meetings is required. **Prerequisites: H. E. 41, 115, Economics 1, Sociology 1 or Farm Economics 140.**

127 ADVANCED CHILD DEVELOPMENT. (3) II Beiter

Detailed study of special features of child development during the first nine years with special reference to body management, posture, expressive movements, language and speech, conduct in novel situations, emotional expression, conduct in relation to companions, and conduct in problem solving situations. Observations are made at the nursery school and the University School. Lectures, 1 hour; laboratory, 4 hours. **Prerequisite: H. E. 115.**

128 ADVANCED CLOTHING PROBLEMS. (3) I, II Seeds, Latzke

Designed to suit the needs of the individual student. Some suggested problems are children's clothing; tailoring; remodeling; clothing economics; clothing for the family. Lecture, 1 hour; laboratory, 4 hours. **Prerequisite: H. E. 47.**

129 FOOD PRESERVATION. (2) S

The principles of preserving food by drying, canning, pickling, salting and quick freezing. Practice in the canning of fruits, vegetables and meats; the pickling of fruits and vegetables and the making of jellies and preserves. **Prerequisites: Bacteriology 52 and H. E. 6a.**

142a HOME MANAGEMENT AND FAMILY RELATIONSHIPS. (2) I, II Deephouse

The philosophy and principles of home management. A study of the management of resources available to the family for optimal development. Includes the mechanics of time, energy and money management. Emphasis is placed on personal development, social and family relationships. Lectures, 2 hours. **Prerequisites: Econ. 1, H. E. 41.**

142b HOME MANAGEMENT AND FAMILY RELATIONSHIPS. (3) I, II Deephouse, Moore

A residence period in the University home management house is required of all seniors in home economics. The course consists of laboratory work affording experience in the application of principles presented in other courses. **Prerequisites: H. E. 142a, 6a and 6b. Prerequisite or parallel: H. E. 124.**

178 INSTITUTION ORGANIZATION AND ADMINISTRATION. (3) II Helton

Principles of institution organization, types of institution service, modern industrial tendencies, advertisment, personnel and financial control. Lectures, 2 hours; laboratory, 2 hours. **Prerequisites: H. E. 81 and 82.**

179a-b INSTITUTION MANAGEMENT. (3, 3) I, II Helton

Application of scientific principles of institution management. Practice is given in office management and in the different units of service. Lecture, 1 hour; laboratory, 4 hours. **Prerequisite: H. E. 82.**

180 INSTITUTION EQUIPMENT. (3) I Helton

Selection, arrangement, cost and care of institution equipment. Problems of lighting, heating, ventilation, refrigeration for institution food preparation and service units. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: H. E. 82.**

201 ADVANCED HOME MANAGEMENT AND FAMILY RELATIONSHIPS. (3) II Deephouse

A course affording opportunity for special study of social and economic problems affecting family life. Lecture, 3 hours. **Prerequisites: H. E. 142a and b.**

202a-b GRADUATE SEMINAR. (2, 2) I, II Erikson

204 PROBLEMS IN TEXTILES. (4) II Latzke

Advanced textiles. Individual term problems. **Prerequisites: H. E. 26, Economics 1.**

222a-b ADVANCED FIELD WORK IN NUTRITION. (2, 2) I, II Grundmeier

This course is a continuation of H. E. 122a-b with investigations of recent research in the field. Lecture, 1 hour; laboratory, 2 hours. **Prerequisites: H. E. 112, 122a, or special permission.**

COLLEGE OF ENGINEERING

CIVIL, ARCHITECTURAL AND SANITARY ENGINEERING

Professors Terrell, Carrel and Cheek, Associate Professors Farris and Shaver, Assistant Professor Chambers, and Mr. Gillig

Architectural Engineering

1 **ARCHITECTURAL RENDERING. (2) II** Farris
Pictorial delineation of architectural subjects in the medium of pencil, ink and water color. Drawing, 6 hours a week. **Prerequisite: Art 61a.**

3 **SANITATION, ACCOUSTICS, FIRE PREVENTION. (3) I** Farris
Theory and practice as applied to architectural design. Lectures and recitations, 3 hours a week. **Prerequisite: Junior classification.**

4a **ARCHITECTURAL DESIGN. (2.7) I** Farris
Principles of aesthetic design and functional planning of buildings. Drawing room, 8 hours a week. **Prerequisite: Junior Classification.**

4b **ARCHITECTURAL DESIGN. (2.7) I, II** Farris
Continuation of Arch. Eng. 4a. Drawing room, 8 hours a week. **Prerequisite: Arch. Eng. 4a.**

5 **BUILDING EQUIPMENT. (2) II** Farris
Theory and practice of modern building equipment. Lectures and recitations, 2 hours a week. **Prerequisite: Mech. Eng. 103.**

6 **INDEPENDENT PROBLEMS. (5) II** Farris
Development of complete working drawings and specifications of a building, to be selected by the student with the approval of the instructor. Class work, 3 hours; drawing room, 6 hours a week. **Prerequisite: Arch. Eng. 4a.**

7 **BUILDING CONSTRUCTION. (1) II** Farris and Gillig
Theory and practice of modern building construction. Materials and their use. Contractor's operation, inspection, and methods of procedure. Lectures and recitations, 2 hours a week. **Prerequisite: Senior classification.**

Civil Engineering

5 **MASONRY CONSTRUCTION. (2) II** Chambers
Properties of stone, brick, cement, and their uses in engineering structures.

*12 **PLANE SURVEYING. (2.7) I, II** Shaver
Theory and use of the transit, level and compass in land surveys, leveling, municipal and topgraphic surveys. General use and care of surveying instruments, note keeping, field problems and computations. Class work, 2 hours a week; field work, four hours a week first half of first semester or second half of second semester. **Prerequisite: Math. 3 or 18.**

---

* Courses open to freshmen.

13 ADVANCED SURVEYING. (3) I Shaver

Triangulation and base line measurements, precise and trigonometric leveling, hydrographic surveys, map projection and plotting Topographic mapping by the stadia method. Class work, 2 hours a week; field work, 6 hours a week, first half of first semester. **Prerequisite: Civ. Eng. 12.**

15 GENERAL SURVEYING. (3) S Terrell, Shaver

Given at the summer surveying camp located at Camp Robinson, Noble, Breathitt County, Kentucky. Land surveys; plane and elementary topographic surveying. Determination of azimuth, time, latitude and longitude, triangulations and base lines, including field and office practice. Lectures, recitations and field practice 44 hours a week for three weeks. **Prerequisite: Civ. Eng. 16a.**

16a ROUTE SURVEYING. (2) II Shaver

Curves, line, grade, earthwork, theory of location as it applies to railways and highways. Earthwork, overhaul, mass diagram and estimate of cost. Lectures and recitations, 2 hours a week. **Prerequisite: Civ. Eng. 12.**

16b ROUTE SURVEYING. (3) S Terrell, Shaver

Given at summer surveying camp located at Camp Robinson, Noble, Breathitt County, Kentucky. Complete location survey of railway or highway, including preliminary survey, topography, projected line and final location, plan, profile, grade lines, cross-sections, earthwork, estimate of quantities and cost. Lectures, recitations and field work, 44 hours a week for three weeks. **Prerequisite: Civ. Eng. 16a.**

17 HYDROGRAPHIC SURVEYING. (1) S Terrell, Shaver

Given at the summer surveying camp located at Camp Robinson, Noble, Breathitt County, Kentucky. Stream gaging, sounding, and measuring the flow in Kentucky River, location surveys for bridges and power dams. Surveys for impounded water supplies, location of small dams. Notes taken to be used by the students for future work. Lectures, recitations and field work, 44 hours a week for one week. **Prerequisite: Civ. Eng. 16a.**

18 MAPPING AND TOPOGRAPHIC DRAWING. (2) I Terrell, Shaver

Construction of maps from field notes, reproductions and changing scale of maps, topographic symbols, contours, projected locations, profile, line and grade. Drafting room, 6 hours a week. **Prerequisite: Civ. Eng. 12.**

20 HYDRAULICS. (1) I Cheek

A brief course for mechanical engineers, in the flow of liquids through orifices, venturi meters, nozzles and pipes. This course omits advanced material related to the design of hydraulic structures. Recitation, 2 hours a week for one-half semester. **Prerequisite: Phys. 3a. Prerequisite or concurrent: Math. 20b.**

23 SEMINAR. (1) II Terrell

A study of current engineering literature as related to civil engineering; assigned reading and reports. Round table conference, 2 hours a week. **Prerequisite: Junior classification.**

31 HIGHWAY LOCATION, CONSTRUCTION AND MAINTENANCE. (2) I Chambers

Principles of location, topographic conditions, economic considerations, benefits and costs. Materials and types of roads, and general maintenance. Lectures and recitations, 2 hours a week.

32 STREETS AND PAVEMENTS. (2) II Chambers

Drainage, subgrade, foundations, surfacing materials; resistance to friction, safety appliances, construction, maintenance and traffic census. Lectures and recitations, 2 hours a week. **Prerequisite: Civ. Eng. 31.**

35 HIGHWAY MATERIALS. (1) I Chambers

Methods of testing stone, gravel, sand, brick, culvert pipe, cement, concrete and other highway materials. Laboratory, 2 hours a week. **Prerequisite or concurrent: Civ. Eng. 31.**

36 BITUMINOUS MATERIALS. (1) II Chambers

Testing of asphalts, road oils, coal tars, flux oils and dust layers. Laboratory, 2 hours a week. **Prerequisite or concurrent: Civ. Eng. 32.**

49 RAILWAY CONSTRUCTION AND MAINTENANCE. (3) I Shaver

Theory of construction, road bed, track, sub-drainage, structures, yards, terminals, revisions, cost of operation and maintenance of way. Lectures and recitations, 3 hours a week. **Prerequisite: Civ. Eng. 16a.**

72 GRAPHIC STATICS. (1.3) I, II Carrel

Principles and methods of finding stresses by graphic solution as applied to roof and bridge trusses. Drawing room, 4 hours a week. **Prerequisite: Phys. 3a.**

81 TESTING MATERIALS. (1) I, II Chambers

Experimental investigations and tests of woods, metals, cement, concrete and other construction materials to verify the laws governing their behavior under given conditions. Laboratory, 2 hours a week. **Prerequisite or concurrent: Applied Mech. 100.**

102 REINFORCED CONCRETE. (3) I Terrell

A study of concrete mixtures. Theory and design of beams, slabs, columns, bridges and buildings. Lectures and recitations, 3 hours a week. **Prerequisite: Applied Mech. 100.**

104 REINFORCED CONCRETE DESIGN. (0.7) I Terrell

Designs of columns, beams, buildings, bridges, retaining walls dams and arches. Special problems assigned to each student. Drawing room, 2 hours a week. **Concurrent: Civ. Eng. 102.**

105 MASONRY STRUCTURES. (3.7) II Terrell

Theory and design of retaining walls, dams, arches, plane and reinforced structures, rigid frames. Lectures and recitations, 3 hours; drawing room, 2 hours a week. **Prerequisite: Civ. Eng. 171a.**

106 FOUNDATIONS AND TUNNELING. (2) II Graham, Terrell

A study of foundation material and its relation to the structure. Principles of tunneling as related to transportation and structures. Lectures and recitations, 2 hours a week. **Prerequisite: Applied Mech. 100.**

107 SOIL MECHANICS. (2) II Shaver
A study of soil and its utilization in foundations for structures and subgrade for highways. Stabilization and improvement of bearing values. Lectures and recitations, 2 hours a week. **Prerequisite: Applied Mech. 100.**

113 GEODESY, PRECISE SURVEYING AND LEVELING. (3) I Terrell
Method of making and adjusting observations in triangulation systems, and precise traverses. Observation and calculation for determining time, azimuth, latitude and longitude. Lectures and recitations, 2 hours a week; field work, 3 hours a week. **Prerequisites: Math. 11, 12; Civ. Eng. 13.**

120 HYDRAULICS. (2) I, II Cheek
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. Lectures and recitations, 2 hours a week. **Prerequisite: Phys. 3a. Prerequisite or concurrent: Math. 20b.**

122 WATER POWER ENGINEERING. (2) II Carrel
Investigations, design and operation of water power projects. Lectures and recitations, 2 hours a week. **Prerequisite: Civ. Eng. 120.**

123 HYDRAULICS LABORATORY. (1.5) I, II, S Cheek
Experimental investigation of flow of water in pipes, channels, over weirs, measure of friction and hydrostatic pressure, hydraulic machinery. Laboratory, 3 hours a week. **Prerequisite or concurrent: Civ. Eng. 120.**

170 ELEMENTS OF STRUCTURAL DESIGN. (3) I, II Carrel
Drafting room practice, problems in the design of timber, steel and masonry structures. Lecture, 1 hour; drafting room, 6 hours a week. **Prerequisite or concurrent: Civ. Eng. 171a.**

171a THEORY OF STRUCTURES. (3) I, II Carrel
Laws of statics, wind impact, live and dead load, reactions, shear moments and influence lines. Methods of design including beams, girders, columns and various types of trusses. Lectures and recitations, 3 hours a week. **Prerequisite or concurrent: Applied Mech. 100.**

171b THEORY OF STRUCTURES. (2) II Carrel
Continuation of Civ. Eng. 171a. Lectures and recitations, 2 hours a week. **Prerequisite: Civ. Eng. 171a.**

173a STEEL STRUCTURES. (3) II Carrel
Design and detail of steel buildings and highway bridges. Lecture, 1 hour; drawing room, 6 hours a week. **Prerequisite: Civ. Eng. 171a.**

173b STEEL STRUCTURES. (1.3) I Carrel
Design and detail of steel railway bridges. Drawing room, 4 hours a week. **Prerequisite: Civ. Eng. 173a.**

181a INDEPENDENT PROBLEMS. (1) I Terrell and others
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, 3 hours a week. **Prerequisite: Student must show that he is qualified to undertake the proposed problem.**

181b INDEPENDENT PROBLEMS. (3) II Terrell and others
Continuation of Civ. Eng. 181a. Conference, laboratory or drawing room, 7 hours a week. **Prerequisite: Civ. Eng. 181a.**

Sanitary Engineering

24 SANITARY ENGINEERING FOR SANITARY INSPECTORS. (5) S Cheek
Elementary principles of sanitary engineering, including municipal and rural sanitation, water supply, sewage disposal, collection and disposal of waste, dairy inspection and insect control. Total time 45 hours of lectures, recitations and field trips, 36 hours of laboratory followed by four weeks of supervised field work in approved county health offices with a weekly seminar in the Fayette County Health Office.

151 WATER SUPPLY AND WATERWORKS. (2) II Cheek
Sources of supply; rainfall, surface water, rivers, lakes and ground water. Theory of filtration, purification, equipment and distribution. Problems in design and construction. Lectures and recitations, 2 hours a week. **Prerequisite: Civ. Eng. 120.**

152 SEWERS AND SEWAGE DISPOSAL. (2) II Cheek
Sanitary and storm sewer system; theory of design; method of disposal. Lectures and recitations, 2 hours a week. **Prerequisite: Civ. Eng. 120.**

153 DESIGN OF WATERWORKS AND SEWERS. (1.3) II Cheek
Design of water supply system, storm and sanitary sewers and disposal plants. Specifications and estimates of cost. Lecture, 1 hour; Drawing room, 4 hours a week. **Prerequisite or concurrent: San. Eng. 151, 152.**

156 WATER AND SEWER PLANT OPERATION. (1) II Cheek
Standard methods of control for producing best results in the treatment of water and sewage. Practice, with minature plants. Laboratory, 2 hours a week. **Prerequisite or concurrent: San. Eng. 151, 152.**

157 SANITARY ENGINEERING FOR HEALTH OFFICERS. (2) S Cheek
General principles of sanitary engineering, including municipal and rural sanitation, water supply, collection of waste, sewers and sewage disposal, insect control, milk sanitation, principles of heating, lighting and ventilation. Lectures, recitations, and field trips, 8 hours a week for eight weeks.

158 SANITARY ENGINEERING DESIGN. (2.7) II Cheek
For students majoring in Sanitary Engineering. Complete design and layout of a water plant, distribution system, storm and sanitary sewer and sewage disposal plant. Drawing room, 8 hours a week. **Prerequisite or concurrent: San. Eng. 151, 152.**

182 SANITATION. (3) I Cheek
Presented from an engineering viewpoint. Municipal and rural sanitation, treatment and protection of water supplies, disposal of refuse and sewage, control of insects, food supply, plumbing and ventilation. Lectures and recitations, 3 hours a week. **Prerequisite: Bact. 57.**

183 STREAM POLLUTION. (3) II Cheek
Survey of sources of pollution, including sewage and industrial waste, prevention, sanitation laws, relation to public health. Lectures and recitations, 3 hours a week. **Prerequisite: Bact. 57.**

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. (6) I Terrell
Advanced work in plain and reinforced concrete, theory, design and experimental work. Class work, 3 hours; laboratory, 9 hours a week.

202b CONSTRUCTION. (6) II Terrell
Continuation of 202a.

232a HIGHWAY ENGINEERING. (6) I Chambers
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, 3 hours; laboratory, 9 hours a week.

232b HIGHWAY ENGINEERING. (6) II Chambers
Continuation of 232a.

242a RAILROAD ENGINEERING. (6) I Shaver
Advanced course in location, construction, maintenance, economical selection of lines, grade reduction, cost of operation, valuation, structures and their maintenance. Class work, 3 hours; laboratory, 9 hours a week.

242b RAILROAD ENGINEERING. (6) II Shaver
Continuation of 242a.

252a SANITARY ENGINEERING. (6) I Cheek
Advanced course in sewer design, construction and maintenance. Design, maintenance and operation of sewage disposal plants. Water supply and waterworks design, construction and maintenance. (Courses in water analysis and bacteriology should be taken in connection with this course. Class work, 3 hours; laboratory, 9 hours a week.

252b SANITARY ENGINEERING. (6) II Cheek
Continuation of 252a.

262a GEODETIC SURVEYING. (6) I Terrell
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, 3 hours; laboratory, 9 hours a week.

262b GEODETIC SURVEYING. (6) II Terrell
Continuation of 262a.

272a STRUCTURAL ENGINEERING. (6) I Carrel
Advanced course in structural design, mill building, railroad and highway bridges. The use of influence diagrams and detail drawings. Class work, 3 hours; laboratory, 9 hours a week.

272b STRUCTURAL ENGINEERING. (6) II Carrel

Continuation of 272a.

ELECTRICAL ENGINEERING

Professors Freeman and Bureau, and Associate Professors Barnett and Doll

11 ELECTRICAL LABORATORY. (1) I, II Barnett

(For Electrical and Architectural Engineers.) A study of the methods and materials used in connecting electrical apparatus and in the wiring of buildings. Especial attention is given to adequacy, serviceability, safety and cost. Laboratory and problem work, 2 hours a week. **Prerequisite or concurrent: Phys. 3a.**

21 PRINCIPLES OF ELECTRICAL ENGINEERING. (4) II, S Staff

(For Electrical Engineers.) A first course in electrical engineering, including a study of the fundamental laws of electric, magnetic and dielectric circuits and of their application to engineering. Recitations, 3 hours; supervised calculations and laboratory, 3 hours a week. **Prerequisite: Math. 20a. Prerequisite or concurrent: Phys. 3b.**

101 FUNDAMENTALS OF ELECTRICAL MACHINERY. (3) I Bureau

(For Civil, Metallurgical and Mining Engineers.) A study in classroom and laboratory of the more common types of d.c. and a.c. electrical equipment and machines. Recitations, 2 hours a week; laboratory, 3 hours a week. **Prerequisite: Phys. 3b.**

102 ELECTRICAL MACHINERY. (2) II Bureau

(For Mining and Metallurgical Engineers.) A study in the classroom of electric power applied to mining machinery and metallurgical processes. Recitations, 2 hours a week. **Prerequisite: Elec. Eng. 101.**

105 D.C. CIRCUITS AND MACHINERY. (4) I, S Barnett, Doll

(For Mechanical Engineers and Industrial Chemists.) 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. Recitations, 3 hours; laboratory, 3 hours a week. **Prerequisite: Phys. 3b.**

106 A.C. CIRCUITS AND MACHINERY. (4) II, S Barnett, Doll

(For Mechanical Engineers and Industrial Chemists.) The fundamental theory of alternating current circuits and apparatus. Includes a study of single phase and polyphase generators, motors, transformers, converters, etc. Recitations, 3 hours; laboratory, 3 hours a week. **Prerequisites: Elec. Eng. 105; Math. 20a.**

107 ELECTRICAL CONTROL. (3) II Bureau

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. Recitations, 2 hours; laboratory, 3 hours a week. **Prerequisite or concurrent: Elec. Eng. 106, 116 or 101.**

108 ENGINEERING ELECTRONICS. (3) I Doll

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. Recitations, 2 hours; laboratory, 3 hours a week. **Prerequisites: Phys. 3b and 114.**

110 ELECTRICAL LABORATORY. (2) II Barnett

(For Electrical Engineers.) An experimental study of electrical machines. 2 three-hour laboratory periods a week. **Prerequisite or concurrent: Elec. Eng. 116.**

111a ADVANCED ELECTRICAL LABORATORY. (2) I Bureau

(For Electrical Engineers.) Advanced study of electrical machinery and equipment with special reference to alternating current apparatus. 2 three-hour laboratory periods a week. **Prerequisite: Elec. Eng. 106 or 116.**

111b ADVANCED ELECTRICAL LABORATORY. (1) II Bureau

(Elective for Electrical Engineers.) Continuation of Elec. Eng. 111a. 1 three-hour laboratory period a week.

115 DIRECT CURRENT MACHINERY. (4) I, S Staff

(For Electrical Engineers.) The theoretical principles and operation of direct current machines, including generators, motors, lifting magnets, balances, etc. Recitations, 3 hours; supervised calculations and laboratory, 3 hours a week. **Prerequisites: Phys. 2b; Elec. Eng. 21; Math. 20b.**

116 ALTERNATING CURRENT CIRCUITS AND MACHINERY. (4) II, S Staff

(For Electrical Engineers.) A study of polyphase circuits and of the simpler forms of alternating current machines. Recitations, 3 hours; supervised calculations and laboratory, 3 hours a week. **Prerequisite: Elec. Eng. 115.**

117 ALTERNATING CURRENT MACHINERY. (4) I Staff

(For Electrical Engineers.) The theory of alternating current machines and their applications in the generation, distribution and utilization of electrical power. Recitations, 3 hours; supervised calculations and laboratory, 3 hours a week. **Prerequisite: Elec. Eng. 116.**

123 ELECTRICAL EQUIPMENT PROBLEMS. (2) I, II, S Bureau, Barnett

(For Electrical Engineers.) Problems related to engineering practice are assigned individually. Solutions involve economic as well as engineering considerations. A formal written report is required for each assignment. 6 hours a week. **Prerequisite: Elec. Eng. 106 or 116.**

124 ELECTRICAL DESIGN. (3) I, II, S Bureau, Barnett

(Elective for Electrical Engineers.) A study of several of the more common types of both direct current and alternating current machines such as generators, motors and transformers, culminating in the design calculations for one or more complete machines. 9 hours a week. **Prerequisite: Elec. Eng. 106 or 116.**

131a ELECTRICAL COMMUNICATION ENGINEERING. (3) I Doll
A study of the fundamentals of wire communication. Special emphasis is placed upon a thorough treatment of the theory of networks, transmission lines, wave filters, etc. Lecture and recitation, 2 hours; problem work and laboratory, 3 hours a week. **Prerequisites: Phys. 114, Math. 105a, Elec. Eng. 116.**

131b ELECTRICAL COMMUNICATION ENGINEERING. (3) II Doll
A continuation of Electrical Engineering 131a, with special emphasis on the application of electron tubes to telephony, telegraphy and radio. Lecture and recitation, 2 hours; problem work and laboratory, 3 hours a week. **Prerequisite: Elec. Eng. 131a.**

136 ILLUMINATION ENGINEERING. (4) II Freeman
Includes a study of light sources and photometry; fundamental principles of illumination as applied to home, public building, factory and commercial lighting; outdoor lighting, including streets and highways. Recitations, 3 hours; supervised problem work and laboratory, 3 hours a week. **Prerequisite: Phy. 3b and Math. 20b.**

137 ELECTRIC POWER TRANSMISSION AND DISTRIBUTION. (3) I Freeman, Barnett
(Elective for Electrical Engineers.) A study of the materials and equipment used and the problems involved in the design, building and operation of transmission lines and distribution systems. Recitations, 3 hours a week. **Prerequisite: Elec. Eng. 106 or 116.**

141 ALTERNATING CURRENT CIRCUIT ANALYSIS. (3) I Bureau
(For Electrical Engineers.) Includes the application of vector algebra, the Fourier series and symmetrical components to the analysis and solution of single and polyphase, balanced and unbalanced a. c. circuits, having simusoidal and non-simusoidal currents and voltages. Recitations, 3 hours a week. **Prerequisites: Elec. Eng. 106 or 116, Math. 105a.**

151a SEMINAR. (0.5) I Staff
(For Electrical Engineers.) Round table discussion of modern trends and practices in electrical engineering. Basis of discussion is current literature on electrical subjects. 2 hours a week. **Prerequisite: Senior classification.**

151b SEMINAR. (0.5) II Staff
(For Electrical Engineers.) Continuation of Elec. Eng. 151a. 2 hours a week.

152a INDEPENDENT PROBLEMS. (2) I, II Staff
(For Electrical Engineers.) A problem, approved by the Head of the Department, forms the background for the original study and research. Only students the character of whose previous work warrants it, will be allowed to take this work. 6 hours a week. **Prerequisite: Senior classification.**

152b INDEPENDENT PROBLEMS. (3) I, II Staff
Any one or more of these courses, E. E. 152a, b and c, may be assigned during the same semester or in succeeding semesters depending upon the nature of the problem and the time and work required for its completion. 9 hours a week. **Prerequisite: Senior classification.**

152c INDEPENDENT PROBLEMS. (4) I, II Staff
(See E. E. 152b.) 12 hours a week. **Prerequisite: Senior classification.**

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. (4) I Bureau

A study of the theory underlying the characteristics of single phase and polyphase induction motors. Recitation, 3 hours; laboratory, 3 hours a week.

206 ELECTRIC POWER TRANSMISSION. (4) 1 Barnett

The theory underlying the calculation and operation of long distance transmission circuits. Special attention to relay control. Recitation, 3 hours; laboratory, 3 hours a week.

207 ELECTRIC POWER DISTRIBUTION. (4) II Barnett

A study of the theory underlying the operation and control of various types of distribution circuits. Recitations, 3 hours; laboratory, 3 hours a week.

208 ELECTRIC TRACTION. (4) II Bureau

An advanced study of electric power application to railways, cranes, elevators, etc. Recitations, 3 hours; drawing room, 3 hours a week.

209 TELEPHONE ENGINEERING. (3) I Freeman

An advanced study of the theory and operation of modern telephone exchanges. Layouts and designs are made to meet different assumed conditions. Recitations, 3 hours a week.

210 SYMMETRICAL COMPONENTS. (4) II Bureau

A study of the symmetrical component method of analyzing unbalanced conditions on transmission lines and its use in solving relay applications. Recitations, 3 hours; laboratory and design, 3 hours a week.

ENGINEERING—GENERAL

Dean Graham, Professors Bureau, Carrel, Cheek, Crouse, Hawkins, Jett, Meyer and Nollau, Associate Professors Barnett, Beebe, Emrath, Farris, Horine, May, and Shaver, and Walton

Applied Mechanics

2 MECHANISMS. (2) II, S Jett

Movement of machine parts such as crank and link motions, cams, gears, straight line and quick return motions. Lectures and recitations, 2 hours a week. **Prerequisites: Phys. 3a, Math. 17 and either Math. 3 or 18; Eng. Draw. 18.**

3 STATICS. (3) I, II, S Hawkins, Cheek, Walton

A study of forces, vectors, couples, moments of areas and masses, center of gravity, and their application to engineering structures in two and three dimensions. Lectures and recitations, 3 hours a week. **Prerequisite: Phys. 3a. Prerequisite or concurrent: Math. 20a.**

4 DYNAMICS. (2) I, II, S Hawkins, Walton
Motion of a particle, dynamics of moving bodies, impulse and momentum, work and energy. Lectures and recitations, 2 hours a week. **Prerequisite or concurrent: Math. 20b, Appl. Mech. 3.**

5 ELEMENTS OF THE SLIDE RULE. (1) I May
Lectures relative to the theory of the slide rule and exercises in the computation of numerical problems by means of the slide rule. **Prerequisites: Math. 17 and either Math. 3 or 18.**

100 STRENGTH OF MATERIALS. (4) I, II, S Hawkins, Walton
(For Civil, Electrical, Metallurgical and Mining Engineers.) A general course in the application of the principles of mechanics to the solution of problems in stress and strain due to direct forces, shear, bending, torsion, eccentric loads and combined stresses; in beams, columns, thin cylinders, springs, etc. Lectures and recitations, 4 hours a week. **Prerequisite: Appl. Mech. 3. Prerequisite or concurrent: Math. 20b.**

104 STRENGTH OF MATERIALS. (4) I, II Hawkins
(For Mechanical Engineers.) Theory of stress and strain in engineering materials, due to direct forces, bending, torsion, eccentric loads and combined stresses. Deflection of beams. Lectures and recitations, 4 hours a week. **Prerequisite: Appl. Mech. 3. Prerequisite or concurrent: Math. 20b.**

Note.—Credit will not be allowed for both Applied Mechanics 100 and 104.

105 APPLIED ELASTICITY. (3) II Hawkins, Meyer
Bending and deflection of thin plates, stress analysis of thick walled cylinders and rotating discs, stress concentrations and fatigue. Lectures and recitations, 3 hours a week. **Prerequisites: Appl. Mech. 4; Appl. Mech. 104; Math. 20b.**

106 ADVANCED STRENGTH OF MATERIALS. (3) I Hawkins
Theory of elastic energy, least work, influence lines, redundant structures, balancing of moments, curved beams, arches, pipes, and other engineering structures. Lectures and recitations, 3 hours a week. **Prerequisites: Math. 20b and either Appl. Mech. 100 or 104.**

107 MECHANICAL VIBRATIONS. (3) II Hawkins, Meyer, Walton
Vibrations of systems of one and several degrees of freedom, balancing of rotating machines, critical speeds, torsional and lateral vibrations of shafts. Lectures and recitations, three hours a week. **Prerequisites: Math. 20b, Appl. Mech. 4 and either Appl. Mech. 100 or 104.**

Engineering Administration

100a ENGINEERING VALUATIONS AND APPRAISALS. (3) II Farris
A study of the methods, procedures and principles involved in engineering analyses as applied to valuation and appraisal; specific problems and assignments to cover the various branches of engineering. Lectures and recitations, 3 hours a week. **Prerequisite: Com. 1 or Pol. Sci. 15.**

100b ENGINEERING VALUATIONS AND APPRAISALS. (3) I Farris
A continuation of Engineering Administration 100a. Lectures and recitations, 3 hours a week.

101 LAW FOR ENGINEERS. (3) I Graham, Farris

The nature of law and the organization of courts. Contracts, offer and acceptance, comparative bids. Parties, consideration, discharge of contracts. Engineering specifications and estimates. Typical engineering contracts and specifications. Lecture and recitations, 3 hours a week. **Prerequisite: Eng. Adm. 100a.**

Engineering Drawing

***1 ELEMENTARY ENGINEERING DRAWING. (2) I, II, S** Nollau, Horine

Freehand lettering; exercises in the use of drawing instruments; principles of orthographic, isometric and oblique projections; technical sketching; tracing and reproduction of drawings. 6 hours a week.

***2a MECHANICAL DRAWING. (1.3) I, II, S** Nollau, Horine

For students in Industrial Chemistry. Freehand lettering, exercises in the use and care of drawing instruments, and the principles of oblique and orthographic projection. 4 hours laboratory a week.

***2b MECHANICAL DRAWING. (1.3) I, II, S** Nollau, Horine

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. 4 hours laboratory a week. **Prerequisite: Eng. Draw. 1 or 2a.**

***3 DESCRIPTIVE GEOMETRY. (3) I, II, S** Nollau, Horine

This work includes a study of descriptive geometry as a branch of pure mathematics followed by the application of the principles to engineering drawing. Lectures, 2 hours; drawing room, 6 hours a week.

12 GRAPHICAL COMPUTATIONS. (2.3) I, II, S Jett

Graphic solution of problems in mechanism, construction and use of alignment charts, practice in the use of planimeter and mechanical integrator. Drafting room, 7 hours a week. **Prerequisite or concurrent: Phys. 3a, Applied Mech. 2. Prerequisite: Eng. Draw. 18.**

***17a MECHANICAL DRAWING. (2) I, II, S** Nollau

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. 6 hours laboratory a week.

***17b MECHANICAL DRAWING. (2) I, II, S** Nollau

Continuation of Drawing 17a. Special problems designed to meet the need of individual students. 6 hours laboratory a week.

18 ENGINEERING DRAWING. (2) I, II, S Nollau

Continuation of Eng. Drawing 1. Comprises working drawings of parts of machines, both detail and assembly; technical sketching of simple machines and working drawings from technical sketches; tracing in pencil and ink. 6 hours a week. **Prerequisites: Eng. Drawing 1 and 3.**

* Courses open to freshmen.

19 MECHANICAL DRAWING. (1) S Horine
For sanitary inspectors only. Freehand lettering, exercises in the use of simple drawing instruments; principles of orthographic, isometric, and oblique projection; principles and practice in the making of charts and maps; tracing and reproduction of drawings. Drawing room, 10 hours a week for five weeks.

115 PHOTOGRAPHY. (3) II Nollau
(Required for Metallurgical Engineers.) (Elective for other Engineers.) Fundamental principles of photography. Lectures on the optics and chemistry of photography together with practical demonstrations. Negative making, printing, etc. Lecture, 1 hour; recitation, 1 hour; laboratory, 2 hours a week. **Prerequisites: Chem. 1a, Phys. 3a.**

Student Assemblies

***1 INTRODUCTION TO ENGINEERING. (0.3) I** Horine and others
Scientific lectures and demonstrations covering all branches of engineering and the allied sciences. Study of the curricula of the College of Engineering to aid the student in choosing the branch of engineering which he wishes to follow. 1 hour a week.

***2 ENGINEERING PROBLEMS. (0.7) II** Beebe, Bureau, May, Shaver
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. 2 hours a week.

3a CLASS SOCIETY. (SOPHOMORE.) (0.0) I Barnett, Carrel, Crouse, Jett
The class societies are affiliated as student branches of the four founder national engineering societies. Lectures on engineering projects of local and national interest. I hour a week.

3b CLASS SOCIETY. (SOPHOMORE.) (0.0) II Barnett, Carrel, Crouse, Jett
1 hour a week.

4a CLASS SOCIETY. (JUNIOR.) (0.0) I Barnett, Carrel, Crouse, Jett
1 hour a week. Content same as 3a

4b CLASS SOCIETY. (JUNIOR.) (0.0) II Barnett, Carrel, Crouse, Jett
1 hour a week.

5a CLASS SOCIETY. (SENIOR.) (0.0) I Barnett, Carrel, Crouse, Jett
1 hour a week. Content same as 3a.

5b CLASS SOCIETY. (SENIOR.) (0.0) II Barnett, Carrel, Crouse, Jett
1 hour a week.

MECHANICAL ENGINEERING

Professors West, Meyer and Jett, Associate Professors May, and Walton

15 MANUFACTURING PROCESSES. (6) S Meyer
The technique of manufacturing articles in metal. Patterns, castings, welding, fitting and assembling of parts. 44 hours a week for seven weeks.

---

* Courses open to freshmen.

15a-b MANUFACTURING PROCESSES. (3 each) I, II Meyer

Same as Mech. Eng. 15 except the work is divided between the two regular semesters. Two 4-hour periods a week, and offered to certain especially selected students

100a MACHINE DESIGN. (2.3) I, II, S Jett

(For Mechanical Engineers.) Design of machine and structural elements. Lecture, 1 hour; drawing room, 6 hours a week. **Prerequisites: Eng. Draw. 12, Applied Mech. 1. Prerequisite or concurrent: Applied Mech. 100 or 104.**

100b MACHINE DESIGN. (3.3) I, II, S Jett

(For Mechanical Engineers.) Continuation of Mech. Eng. 100a. Individual work on the design and construction of complete machines or structures. Lecture, 1 hour; drawing room, 9 hours a week. **Prerequisite: Mech. Eng. 100a.**

101 MECHANICAL ENGINEERING DESIGN. (3) I, II West, May

Individual work in the selection of equipment and in the laying out and specifying of power plant, heating, ventilating, air conditioning, plumbing, electric, industrial and elevator equipment for buildings. Drawing room, 9 hours a week. **Prerequisites: Mech. Eng. 104, Applied Mech. 100 or 104. Prerequisite or concurrent: Mech. Eng. 105, 106b, 109.**

103 ELEMENTS OF HEAT-POWER ENGINEERING. (2) I May

(For Civil and Mining Engineers.) Brief general course in heat-power engineering, including elementary principles of thermodynamics and power plant equipment. Recitations, 2 hours a week. **Prerequisite: Phys. 3a.**

104 ENGINEERING THERMODYNAMICS. (4) I, II Walton

Covering the fundamental principles of thermodynamics, Carnot cycles, entropy and enthralpy. A study of the thermodynamic equations for gases and vapors, steam power plant cycles reciprocating engines and turbines. Recitations, 4 hours a week. **Prerequisites: Phys. 3a. Prerequisite or concurrent: Math. 20b.**

105 STEAM POWER PLANT EQUIPMENT. (2) I, II West

Study of the characteristics and use of steam power plant equipment, including steam generators, fuel handling and burning equipment, ash handling, draft producers, dust collectors, smoke abatement, prime movers, generators, air preheaters, economizers, feed water heating and treatment apparatus, pumps, continuous blow down and combustion control apparatus. Recitations, 2 hours a week. **Prerequisite: Mech. Eng. 104.**

106a HEATING, VENTILATING AND AIR CONDITIONING. (3) II May

Fundamental heating and ventilating calculations with a study of the characteristics of various types of heating and ventilating equipment. Recitations, 3 hours a week. **Prerequisite: Mech. Eng. 104.**

106b HEATING, VENTILATING AND AIR CONDITIONING. (2) I May

A continuation of Mech. Eng. 106a. Special emphasis on the physics and thermodynamics of air conditioning, and the design, selection, laying out and specifying of air conditioning equipment. Recitations, 2 hours a week. **Prerequisite: Mech. Eng. 106a.**

107 FLOW OF GASES. (1) I West

Derivation and use of formulas for the flow of steam and air through pipes and metering devices, using the thermodynamical method of analysis. Recitations, 2 hours a week, one-half of semester. **Prerequisite: Mech. Eng. 104 or Mech. Eng. 103, Civ. Eng. 20.**

108 INTERNAL COMBUSTION ENGINES. (3) I, II Meyer

A study of internal combustion engine cycles and the characteristics and performance of actual engines, valve gears and materials of construction. Recitations, 3 hours a week. **Prerequisite: M. E. 104.**

109 REFRIGERATION. (3) I, II May

A study of the thermodynamics of refrigeration cycles, and the characteristics of refrigeration equipment. Recitations, 3 hours a week. **Prerequisite: Mech. Eng. 104.**

110 HEATING AND VENTILATING DESIGN. (1.3) II May

Brief course for Architectural Engineers, covering the selection and layout of heating and ventilating equipment. Drawing room, 4 hours a week. **Prerequisite or concurrent: Mech. Eng. 116.**

111 ENGINEERING REPORTS. (2) I, II West

A study of the purpose, form and use of engineering reports, together with the construction of charts and tables for the presentation of data therein and the drafting of the salient conclusions therefrom. Also the study of financial reports, contract forms and specifications. Recitations, 2 hours a week. **Prerequisite: M. E. 112.**

112 MECHANICAL LABORATORY. (2) I, II Walton

Practice in the operation, use, calibration and care of mechanical and industrial test and research instruments and apparatus, followed by a study of the methods used for the determination of certain fundamental coefficients and constants; also a study of the records and results from operating and test instruments in actual commercial use. Lecture, 1 hour; laboratory, 3 hours a week **Prerequisite: Mech. Eng. 104.**

113 MECHANICAL LABORATORY. (2) I West

Performance tests on heating, ventilating and power plant equipment. Lecture, 1 hour; laboratory, 3 hours a week. **Prerequisite or concurrent: Mech. Eng. 105, 106a.**

116 ELEMENTARY HEATING, VENTILATING AND AIR CONDITIONING. (3) II May

A course involving elementary heating and ventilating calculations with descriptions of various types of equipment. Latter part of semester devoted to a discussion of the basic principles of air conditioning. Recitations, 3 hours a week. **Prerequisites: Phys. 3a, Junior classification.**

120 INDEPENDENT PROBLEMS. (5) I, II West and others

This comprises the complete design and possibly the construction of a machine or an apparatus, or the complete design and specifications for a power plant, heating, ventilating and air conditioning system or industrial shop, including the management and direction of underclass assistants who will be assigned for such work when and as required; together with the estimating of the costs and time required to perform the work. Lectures and laboratory, 15 hours a week. **Prerequisite: Senior classification.**

121 MACHINE DESIGN. (2) I, II, S Jett

(For Electrical Engineers.) Similar to Mech. Eng. 100a with special attention to the mechanical features of electrical machines. Lecture, 1 hour; drafting room, 5 hours a week. **Prerequisite: Eng. Draw. 18. Prerequisite or concurrent: Applied Mech. 100.**

122a MECHANICAL ENGINEERING SEMINAR.
(1) I West, May and others

Studies of current engineering literature and problems; presentation of papers and discussions. All presentation to be electrically recorded and reproduced and at least one record of each student to be placed on file. 2 hours a week. **Prerequisite: Senior classification.**

122b MECHANICAL ENGINEERING SEMINAR.
(1) II West, May and others

Continuation of Mech. Eng. 122a. 2 hours a week. **Prerequisite: Senior classification.**

Courses open only to Graduate Students

Prerequisite for graduate work: Students desiring to take any of the following courses should have a thorough 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. (6) I, II Meyer

An advanced course in the essentials of motor vehicle design, construction and operation. Drafting room, laboratory and lectures by appointment.

201b AUTOMOTIVE ENGINEERING. (6) I, II Meyer

Continuation of Mech. Eng. 201a.

202a POWER PLANT ENGINEERING. (6) I West

Advanced work in the design, selection, layout and operation of heat power plant equipment.

202b POWER PLANT ENGINEERING. (6) II West

Continuation of Mech. Eng. 202a.

203a HEATING, VENTILATING AND AIR CONDITIONING. (6) I May

Advanced work in the design, selection, layout and operation of heating, ventilating and air conditioning equipment.

203b HEATING, VENTILATING AND AIR CONDITIONING. (6) II May

Continuation of Mech. Eng. 203a.

204a ADVANCED MACHINE DESIGN. (6) I Meyer, Jett

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.

204b ADVANCED MACHINE DESIGN. (6) II Meyer, Jett

Continuation of Mech. Eng. 204a.

METALLURGICAL AND MINING ENGINEERING

Professor Crouse, and Associate Professors Beebe, and Emrath, and Assistant Professor McGuire

Metallurgical Engineering

26 ENGINEERING METALLURGY. (2) I, II Beebe
(For Civil, Electrical and Mining Engineers.) 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 necessary to an intelligent use of these materials. Lectures and recitations, 2 hours a week. **Prerequisite: Chem. 1b or 2b.**

27 GENERAL METALLURGY. (2) I Beebe
(For Metallurgical Engineers.) An elementary course in general metallurgical principles together with a consideration of fuels, refractories, furnaces, pyrometry and the several alloy types. Lectures and recitations, 2 hours a week. **Prerequisite: Chem. 1b or 2b.**

29 METALLURGY OF THE FERROUS METALS. (3) II Beebe
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, 3 hours a week. **Prerequisite: Met. 27.**

35 ENGINEERING METALLURGY. (2) II Beebe
(For Mechanical Engineers.) This is a course designed to cover the fundamental principles of extractive and mechanical metallurgy from the standpoint of the needs of Mechanical Engineers. It places emphasis on the application of the above principles in the extraction and fabrication of the more important engineering metals. In addition, it includes the iron carbon diagram and a consideration of alloy steels and cast irons. **Prerequisite: Chem. 1b or 2b.**

Note.—Credit will not be allowed for both Metallurgy 26 and 35.

36 PHYSICAL METALLURGY AND HEAT TREATMENT OF METALS AND ALLOYS. (3) I Crouse
This course is designed to cover the fundamental principles and practices of physical metallurgy and heat treatment from the standpoint of the requirements of Mechanical Engineers. Lectures and recitations, 2 hours; laboratory, 3 hours a week. **Prerequisites: Phys. 3a, Met. 26 or 35.**

60 METALLURGICAL LABORATORY AND SHOP PRACTICE. (6) S Crouse, Beebe, McGuire
This is a summer course and consists of metallurgical and allied problems worked out practically in the laboratories and shops. The problems given may vary from year to year according to circumstances and the particular fields of interest of the student. Laboratory and shop, 44 hours a week for six weeks. **Prerequisite: Junior classification.**

120 ASSAYING. (2) S Beebe
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, 44 hours a week for 2 weeks. **Prerequisites: Chem. 8, Met. 27.**

121 FUEL AND METALLURGICAL LABORATORY. (2) S Beebe
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 44 hours a week for 2 weeks. **Prerequisites: Chem. 8, Met. 27.**

128 METALLURGY OF NON-FERROUS METALS. (3) I Crouse
This course comprises a study of the principles and processes employed in the production and preparation for use of copper, lead, aluminum and other non-ferrous metals such as gold, silver, zinc, etc., and of their respective alloys. Lectures and recitations, 3 hours a week. **Prerequisite: Met. 27.**

132 METALLURGICAL CALCULATIONS. (5) II Crouse
This course comprises a study of the calculations involved in the practical application of the principles of general metallurgy, as well as those used in both ferrous and non-ferrous metallurgical practice. Recitations and problems, 5 hours a week. **Prerequisites: Chem. 8; Met. 29 and Met. 128.**

140 THE SCIENCE OF METALS. (3) I Crouse, McGuire
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, 3 hours a week. **Prerequisites: Phys. 3b, Chem. 8, Met. 26 or 27.**

142 HEAT TREATMENT. (3.3) II Crouse, Beebe, McGuire
This course comprises a study of the methods used and the principles involved in the heat treatment of metals and alloys. Lectures and recitations, 2 hours; laboratory, 4 hours a week. **Prerequisites: Met. 29, Met. 60, Met. 140.**

143 PHYSICS OF METALS. (5) II McGuire
The study of the laws governing the formation of alloys. Subjects discussed are atomic structures of metals and alloys, atomic forces, super-lattices, ferro-magnetism, perfect and imperfect crystals, corrosion, super-conductivity, the physical properties of metals as a function of the periodic and electro-chemical position, diffusion, free energy, Hume-Rothery and other rules. In addition the course entails the application in the X-ray laboratory of the work taken in the classroom together with the development of an operating technique in radiography as applied to metals and alloys. Lectures and recitations, 4 hours; laboratory, 2 hours a week. **Prerequisites: Physics 119; Physics 123; Metallurgy 140.**

150 INDUSTRIAL MINERAL PREPARATION AND USES. (3) I Beebe
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, 3 hours a week. **Prerequisite: Met. 27.**

164 ELEMENTS OF LOW TEMPERATURE CARBONIZATION. (3) II Crouse
An elementary course in the study of the principles involved in the low temperature carbonization of coals and other carbonaceous materials, including hydrogenation. Lectures and recitations, 3 hours a week, with assigned reference reading. **Prerequisites: Phys. 3a, Chem. 8.**

166a EXTRACTIVE METALLURGY. (3) I Emrath
Study of the principles and mechanisms applied to the practices of gravity concentration, flotation, and related processes, in the preparation of mine products for market, including discussion of the principles of plant design, with reference to reading planned to keep the student informed of current technological development. Recitations and lectures, 3 hours a week for one semester, with reference reading and problems. **Prerequisite: Chem. 2b, Phys. 3a, Math. 20a, Met. 27.**

166b EXTRACTIVE METALLURGY. (3) II Emrath
Continuation of Met. 166a. Recitations and lectures, 3 hours a week.

167 EXTRACTIVE METALLURGY PLANT PRACTICE. (2) S Emrath
A summer course in the operation of plants studied in Met. 166a, 166b. Laboratory, 44 hours a week for 2 weeks.

175a SEMINAR. (1) I Crouse, Beebe, McGuire
This course includes general round table discussions of various metallurgical principles and problems, the preparation and delivery of papers and reports on metallurgical subjects, extemporaneous speaking and the briefing of technical books and articles in the current literature. 2 hours a week. **Prerequisite: Senior classification.**

175b SEMINAR. (1) II Crouse, Beebe, McGuire
A continuation of Metallurgy 175a. 2 hours a week. **Prerequisite: Senior classification.**

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. (6) I, II Crouse, McGuire
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, 2 hours; laboratory, 8 hours a week.

207 TECHNOLOGY OF ALLOYS. (6) I, II Crouse, McGuire
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, 2 hours; laboratory, 8 hours a week.

208 ADVANCED METALLOGRAPHY. (6) I, II Crouse, McGuire
This course comprises a detailed study of the structure of metals and alloys together with their preparation for examination under the microscope. In addition instruction is given in the taking of microphotographs. Reference reading and laboratory work are emphasized. Lectures and recitations, 2 hours; laboratory, 8 hours a week.

209 ADVANCED ORE DRESSING. (6) I, II Emrath
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, 2 hours; laboratory, 8 hours a week.

210 TECHNOLOGY OF LOW TEMPERATURE CARBONIZATION. (6) I, II Crouse
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, 2 hours; laboratory, 8 hours a week. **Prerequisite: Sufficient background in Physics, Chemistry and Metallurgy, this background to be determined by the Head of the Department after consultation with the student.**

211 ELEMENTS OF OIL SHALE ENGINEERING. (2) I, II Crouse
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, 2 hours a week. **Prerequisite: A sufficient background of Physics, Chemistry and Geology.**

212 OIL SHALE TECHNOLOGY. (6) I, II Crouse
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, 2 hours; laboratory, 8 hours a week. **Prerequisite: Sufficient background in Chemistry and Physics.**

213 X-RAY METALLOGRAPHY. (4) I, II McGuire
Radiography of castings and welds. The atomic structure of metals and alloys will be determined. Laue, Debye, focusing, rotating crystal, Phragmen and Sacks type diffraction cameras will be studied; also stereographic and gnomonic projection, pole figures, fibre patterns, crystal structure and Cohen's analytical method of calculating lattice parameters. Radiographs will be made and interpreted. Lectures and recitations, 2 hours; laboratory, 4 hours a week. **Prerequisite: Met. 143.**

214 THE METALLIC STATE. (2) I, II McGuire
Fibre patterns, stereographic projection and goniometry. Crystal chemistry and metallic crystals. Quantum mechanical concepts for isolated atoms are applied to interacting atoms, leading to methods of calculating energies and forces binding atoms together in crystals. Lectures and recitations, 2 hours a week. **Prerequisite: Met. 143.**

230a-b-c-d RESEARCH IN X-RAY METALLOGRAPHY. (6) I, II, S McGuire
Research problems in X-ray metallography either diffraction or radiographic. **Prerequisite or concurrent: Met. 143, Met. 213.**

Mining Engineering

126a DEVELOPMENT OF MINES. (4) II Emrath
Includes study of the origin of mineral deposits in general, as they concern the engineering procedures involved in the location and

exploration of mineral deposits and of the engineering processes involved in the development of prospects into mines. Recitations, 4 hours a week; reference reading and assigned reports. **Prerequisites: Chem. 2b, Phys. 3a, Geol. 12 and Geol. 7.**

126b DEVELOPMENT OF MINES. (2) I Emrath

Continuation of Mining 126a. Recitations, 2 hours a week, with assigned reference reading and reports. **Prerequisite: Min. 126a.**

127a MINING UNDERGROUND. (3) I Emrath

Includes a study of methods of excavation and support, and underground working and development faces in all types of underground mining operations. Recitations and lectures, 3 hours a week with assigned reference reading. **Prerequisite: Min. 126a**

127b MINING UNDERGROUND. (2) II Emrath

Continuation of Mining 127a. Recitation and lectures, 2 hours a week with assigned reference reading. **Prerequisite: Min. 126a.**

128 MINING AT THE SURFACE. (3) II Emrath

Study of the methods of working placer deposits, open-pit mines, and similar surfacial mining operations. Lectures and recitations, 3 hours a week with assigned reference reading. **Prerequisite: Min. 126a.**

129a MINE VENTILATION AND DRAINAGE. (3) I Emrath

Includes study of the principles applied in the conditioning of underground mine atmospheres, the drainage of underground mine workings, and the problems encountered in the handling of emergencies, such as fires and floods in underground working. Recitations and lectures, 3 hours a week. **Prerequisite: Min. 126a, preferably Concurrent: Min. 127a.**

129b MINE VENTILATION AND DRAINAGE. (2) II Emrath

Continuation of Mining 129a. Recitations and assigned reference reading, 2 hours a week. **Prerequisite: Min. 129a.**

130a MINE ADMINISTRATION. (2) I Emrath

A study of the engineering aspects of mine administration and management, of the technology and mechanization studies of mining and market preparation processes, and practice in the fundamentals of mine plant design. Recitations and lectures with assigned reference reading, 2 hours a week. **Prerequisites: Min. 126a, Min. 126b.**

130b MINE ADMINISTRATION. (2) II Emrath

Continuation of Mining 130a. Lectures, assigned reference reading and problems in mine plant design, 2 hours a week for one semester. **Prerequisite: Min. 130a.**

160 MINE SURVEYING AND FIELD PRACTICE IN MINING ENGINEERING. (3) S Emrath

This is a summer course and consists of problems in mine surveying and the practical application of mining principles in the field. The problems given may vary from year to year according to circumstances and the particular field of interest of the student. One summer course is required and more may be taken. Field work, 44 hours a week for 4 weeks. **Prerequisite: Junior classification.**

175a SEMINAR. (1) I Crouse, Emrath

This course includes general round table discussions of various mining principles and problems, the preparation and delivery of papers and reports on mining subjects, extemporaneous speaking and the briefing of technical books and articles in the current literature. 2 hours a week. **Prerequisite: Senior classification.**

175b SEMINAR. (1) II Crouse, Emrath

A continuation of Mining 175a. 2 hours a week. **Prerequisite: Senior classification.**

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. (3) I, II Emrath

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, 3 hours a week.

206 EXPLOSIVE ENGINEERING. (2) I, II Emrath

This course comprises a study of the principles involved in the use of explosives in large scale mining and quarrying practice. Lectures and recitations, 2 hours a week.

207 ADVANCED PROSPECTING. (2) I, II Emrath

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, 2 hours a week.

208 COAL DUST INVESTIGATION. (4) I, II Emrath

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, 12 hours a week.

209 ADVANCED MINE ENGINEERING. (7) I, II Emrath

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, 3 hours; drawing and mapping, 8 hours a week.

COLLEGE OF LAW

Dean Evans, Professors Eblen, Moreland, Murray, Pittman, Randall, and Roberts, and the Librarian

FIRST YEAR

First Semester	Credits	Second Semester	Credits
Torts I	3	Torts II	3
Pleading I	2	Pleading II	2
Criminal Law I	2	Criminal Law II	2
Contracts I	3	Contracts II	3
Property—Personal Property	2	Property—Real Property	2
Domestic Relations	2	Agency	2
	14		14

Second and Third Years

167 ADMINISTRATIVE LAW. (3) I Pittman
The creation, function and powers of administrative tribunals; procedure before such tribunals; the scope and manner of judicial review of their orders. Stason's Cases.

164 CONFLICT OF LAWS. (3) I Moreland
Cheatham, Dowling and Goodrich's Cases.

161a-b CONSTITUTIONAL LAW I AND II. (2) I, II Eblen
Dodd's Cases (2nd ed.).

174 CREDIT TRANSACTIONS. (3) I Roberts
Sturges' Cases (2d ed.).

178 CREDITORS' RIGHTS. (3) II Roberts
Hanna and McLaughlin's cases (3d ed.).

121a-b EQUITY I AND II. (3 each) I, II Pittman
Cook's Cases (3d ed.).

124a-b EVIDENCE I AND II. (2-2) II Randall
Morgan and McGuire's Cases.

173 FEDERAL JURISDICTION AND PROCEDURE. (2) S Randall
Jurisdiction of and procedure in the several Federal courts; diversity of citizenship; jurisdictional amount; venue; concurrent jurisdiction; original and appellate jurisdiction; procedure in District Court; Circuit Court of Appeals and Supreme Court. Special attention is given to pleadings and trial practice. Dobie's cases.

142 INDUSTRIAL RELATIONS. (2) S Moreland
Albertsworth's Cases.

145 INSURANCE. (2) II Murray
Goble's Cases.

180 LABOR LAW. (2) S Eblen
A study of the case and statute law which is applicable to labor controversies. Consideration will be given to strikes, the ends for which men strike, the trade agreement between the employer and the union, the boycott, the use of the union label on goods, federal intervention in labor disputes, and employer interference with the right to work and trade. Landis' cases.

169 LAW OF THE AIR. (2) I Randall

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. Selected cases and readings.

144 LEGAL BIBLOGRAPHY. (No credit.) I Librarian

Eldean, Finding the Law.

170 LEGAL ETHICS. (2) S Murray

Hick's Cases.

179 LEGISLATION. (3) II Eblen

Typical federal and state statutes will be used. The history of legislation, legislative agencies, content, preparation, province and subject matter, legislative drafting, means of making laws effective, mechanics, interpretation, operation, amendment, abrogation and repeal, relation of traditional law to legislation. Horack's cases.

149 MUNICIPAL CORPORATIONS. (2) II Roberts

Stason's Cases.

123 NEGOTIABLE INSTRUMENTS. (3) I Murray

Britton's Cases on Bills and Notes.

152 OIL AND GAS. (2) S Moreland

Kulp's Cases.

125 PRACTICE COURT. (2) I Randall

This course is designed to fit the student for actual court practice following his training in the various subjects of substantive law. This training will give some knowledge of the work the young lawyers will experience in their professional career. All proceedings will be conducted in the main under the Ky. code, but so treated as to give a fair understanding of like work in other states.

160a-b PRIVATE CORPORATIONS I AND II. FIRST SEM. (2) SECOND SEM. (3) Frey's Cases. Evans

172 PROBLEMS OF RESEARCH. (2) By appointment. Staff

This course is reserved for students who are preparing to make an independent study of some legal problem under the supervision of some member of the faculty.

122 PROPERTY III (TITLES AND CONVEYANCES). (3) I Roberts

Martin's Cases.

162 PROPERTY IV (FUTURE INTERESTS). (3) II Roberts

Leach's Cases.

150 PUBLIC UTILITIES. (3) II Moreland

Robinson's Cases. (2d ed.)

147 QUASI-CONTRACTS. (2) I Murray

Woodruff's Cases.

166 SALES. (3) II Murray

Woodward's Cases (3d ed.).

177 STATUTORY INTERPRETATION. (2) S — Murray

This course covers the interpretation of statutes, including such matters as process of interpretation, subject matter and purpose of the statute; context; associated words; extrinsic aids; relation to other statutes and to the common law; mandatory and directory provisions; judicial notice; operation; effect; repeal of statutes.

153 TAXATION. (3) I — Eblen

Magill and Maguire's Cases.

176 TRADE REGULATION. (3) S — Eblen

Oppenheim's Cases.

120a-b TRIAL PROCEDURE I AND II. (2 each) I — Randall

Sunderland's Cases.

165 TRUSTS. (4) I — Evans

Scott's cases (3d ed.).

163 WILLS AND THE ADMINISTRATION OF ESTATES. (3) II — Evans

Mechem and Atkinson's Cases.

181a-b LAW JOURNAL NOTE EDITING. (1.5) I, II — Staff

This course is to be required of all senior members of the **Law Journal** staff and consists of study and criticism of the notes and comments prepared by the student editors of the **Law Journal** for publication. Definite assignments are made prior to the meeting of the class and the class is under the supervision of a member of the faculty in whose particular field the note or comment happens to fall.

Note.—Substantially all the 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.

COLLEGE OF EDUCATION

AGRICULTURAL EDUCATION

Professors Hammonds and Woods, and Mr. Armstrong, Mr. Robbins, Mr. Tabb, and Mr. Truitt

179 DETERMINING CONTENT IN VOCATIONAL AGRICULTURE. (3) S Hammonds
Interpreting data as a basis for course building. Working out the content of a four-year course in vocational agriculture.

181 TEACHING VOCATIONAL AGRICULTURE. (7) II Hammonds, Robbins, Tabb and Truitt
Designed to prepare men for the teaching of agriculture. About one-half of the course is practice.

182 EVENING SCHOOL AND PART-TIME COURSES IN AGRICULTURE. (2) II Hammonds
A general introduction to evening school and part-time work with some observation of work in both of these fields.

188 FARM PRACTICE SUPERVISION. (1) I, II, S Hammonds, Woods, and Armstrong
Practice and directed study in supervising farm practice of pupils in vocational agriculture.

280 METHOD IN TEACHING VOCATIONAL AGRICULTURE. (3) S Hammonds
The principles of method are applied to the teaching of agriculture. For men with experience in teaching vocational agriculture.

281 TEACHING PREVOCATIONAL AGRICULTURE. (3) S Woods
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.

287a ADVANCED PROBLEMS IN AGRICULTURAL EDUCATION. (3) I, II, S Hammonds and Woods
The specific problems considered vary according to the needs of the group.

287b SELECTING TEACHING MATERIALS. (3) S Armstrong
Specific references and other teaching materials are selected to be used in the teaching of vocational agriculture.

287c EVENING SCHOOLS. (3) S Hammonds and Woods
Designed to prepare men to teach adult farmers. Includes organizing the school, determining content, method of teaching, follow-up work.

287d DIRECTING FARM PRACTICE. (3) S Hammonds
Considers farm practice as a method of teaching. Takes up standards, planning, supervision, records.

287e TEACHING FARM SHOP. (3) S Woods
Includes determining content for shop, securing and equipping the shop, and methods of teaching farm shop.

287f **PART-TIME SCHOOLS. (3) S** Hammonds and Woods
Determining content and teaching part-time courses in vocational agriculture.

289a-b **RESEARCH IN AGRICULTURAL EDUCATION (3) I, II, S** Hammonds and Woods
The student works on some problem of importance to agricultural education.

BUSINESS EDUCATION

Associate Professor Lawrence and Assistant Professor Guy

104 **FOUNDATIONS OF BUSINESS EDUCATION IN THE HIGH SCHOOL. (3) I, S** Lawrence
This course is designed to give to the student preparing to teach commerce in the high school an understanding of the origin, the status, and the objectives of business education in the secondary school. Required of Commerce majors.

158a **TEACHING SECRETARIAL SUBJECTS. (2) I, II, S** Lawrence
Special techniques and devices for teaching shorthand, typewriting, and secretarial office practice are considered. Required of Commerce majors.

158b **TEACHING ACCOUNTING. (2) I, II, S** Lawrence
This course provides materials and techniques in the teaching of accounting. Required of Commerce majors.

184 **TEACHING OFFICE APPLIANCES. (2) I, II, S** Lawrence, Guy
Methods and materials to be used in teaching the various office appliances to high school pupils. Dictating machines, mimeographs, multigraphs, graphotypes, mimeoscopes, addressing machines, filing, calculating machines, and other appliances will be used.

192 **TEACHING GENERAL BUSINESS. (3) II, S** Lawrence
Objectives of the general business course are studied critically and a syllabus prepared for teaching this subject.

208a-c **PROBLEMS IN BUSINESS EDUCATION. (3) I, II, S** Lawrence
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.

256 **THE SOCIAL BUSINESS SUBJECTS IN HIGH SCHOOL. (3) S** Lawrence
The various social business subjects will be examined to determine their contribution to the objectives of business education.

257a-b **SEMINAR IN BUSINESS EDUCATION. (1) II, S** Lawrence
A study of current literature in business education with special reference to trends in this field.

259 **THE COMMERCE CURRICULUM. (3) I, S** Lawrence
Business subjects offered in the high school are examined critically to determine their content and the place each should occupy in high school curricula. A course of study is developed for each subject.

DISTRIBUTIVE OCCUPATIONS

Mr. Baker

112 DETERMINING TEACHING CONTENT IN DISTRIBUTIVE OCCUPATIONS. (3) I, II, S Baker

This course is planned to meet the needs of persons engaged as instructors in the field of distributive occupations. It will cover the analysis and course construction in the field of distributive occupations.

116 PROBLEMS OF THE COORDINATOR IN DISTRIBUTIVE OCCUPATIONS. (3) I, II, S Baker

The purpose of this course is to discuss some of the problems facing the coordinator as he acts in the capacity of intermediator between the school and the business world. Problems in placing students in stores, problems in follow up methods, problems in store contacts, and problems in securing the cooperation of personnel management will be discussed.

128 TECHNIQUE OF TEACHING DISTRIBUTIVE OCCUPATIONS. (3) I, II, S Baker

This course is a study of the methods of teaching as applied to distributive occupations education. The purpose of the course is to train prospective teachers to teach in the field of distributive occupations.

EDUCATIONAL ADMINISTRATION

Dean Taylor, Professors Seay, Chamberlain, Hammonds and Ligon, Associate Professor Duncan, Assistant Professor Meece, and Mrs. Holmes

101 SCHOOL ORGANIZATION. (3) I, II, S Seay

A course designed to familiarize the prospective teacher with those activities of school organization and administration in which he 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.

148 ADVISERS OF GIRLS AND DEANS OF WOMEN. (3) S Holmes

This course is designed for teachers, advisers of girls, and deans of women, with particular reference to the needs of Kentucky schools. Some of the problems studied are: the adjustment of students; the aims, organization, and content of the extra-curricular program; the technique of counseling; work with groups; student government; vocational and educational guidance; record forms and office organization.

198 THE ADMINISTRATION OF PUPIL PERSONNEL. (3) S Seay

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.

202 LOCAL SCHOOL ADMINISTRATION. (3) I, S Seay or Meece

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.

203 CONSTITUTIONAL AND LEGAL BASIS OF PUBLIC SCHOOL ADMINISTRATION. (3) I, S Ligon

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.**

206 PROBLEMS OF COLLEGE TEACHING. (3) S Taylor

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.

207 SCHOOL BUILDING AND EQUIPMENT. (3) S Chamberlain

The major topics considered are the measurement and evaluation of existing building facilities, planning new school buildings, and 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.**

210 SPECIAL PROBLEMS IN SCHOOL ADMINISTRATION. (3) I, II, S Seay

An independent work course for students doing their first year of graduate work in education. **Prerequisite: Education 101 or 202.**

211 THE ADMINISTRATION OF VOCATIONAL EDUCATION. (3) S Hammonds

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 to state administration.

212 THE ELEMENTARY SCHOOL. (3) II, S Duncan

For description see Elementary Education.

213 STATE SCHOOL ADMINISTRATION. (3) II, S Seay

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.

214 THE SECONDARY SCHOOL. (3) S Ligon
For description see Secondary Education.

221a-b SEMINAR IN ADMINISTRATION. (3)
A critical study of selected problems in school administration.

225 SUPERVISION OF INSTRUCTION. (3) I, S Seay or Meece
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.

229 THE ELEMENTARY PRINCIPAL. (3) II, S Duncan
For description see Elementary Education.

231 FINANCING PUBLIC EDUCATION. (3) II, S Seay or Meece
Topics covered are budgetary procedure, school costs, school indebtedness, state finance, fiscal reports, and accounting procedures. These topics are treated primarily from the standpoint of the superintendent of schools. The student should have had Education 202 or its equivalent before enrolling in this class.

232 HIGH SCHOOL ADMINISTRATION. (3) II, S Ligon
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.

233 THE ADMINISTRATION OF THE TEACHING PERSONNEL (3) I, S Seay or Chamberlain
A specialized course in school administration, primarily for prospective superintendents. The course will emphasize principles and practices in teacher preparation, teacher selection and placement, measurement of teaching efficiency, salaries, tenure, retirement, teaching loads, sick leave and related problems, and personnel records.

236 BUSINESS ADMINISTRATION OF PUBLIC EDUCATION. (3) S Seay
A specialized course for prospective superintendents covering the following aspects of school administration: The organization for business management; the scope of business administration; appraisal, depreciation and insurance of school property; maintenance of the school plant; plant operation; selection, training and pay of the custodial staff; purchase and management of supplies; textbook management; selection and purchase of equipment; inventories; and transportation.

238 TRENDS IN HIGHER EDUCATION. (3) I, S Chamberlain
This course will survey modern tendencies in American higher education in the following areas: Scope and development, objectives, organization, administration, curricula, finance, and faculty and student personnel. It is designed to serve the needs of present and prospective college administrators and teachers and others interested in developments in higher education. For those desiring special instruction in the work of the registrar a program of laboratory work will be arranged.

239 THE ADMINISTRATION OF PUBLIC SCHOOLS IN RELATION TO OTHER AGENCIES. (3) S Seay
This course deals with the relationship of public schools with other agencies and services, such as the public health service, the agricultural extension service, employment bureaus, public libraries, parent-teacher associations, and professional organizations of teachers. A study is made of the functions and organization of such agencies. The general aim of the course is to give the school administrator an understanding of the social agencies which should be included in the total education program of a community.

276 ADMINISTRATIVE PROBLEMS IN TODAY'S EDUCATION. (3) S Seay
This course has to do with present-day problems of persons in administrative positions in public education. It is designed to be of assistance particularly to superintendents of schools.

301a-b RESEARCH PROBLEMS IN EDUCATIONAL ADMINISTRATION. (3) I, II, S Seay
An independent research course. The student will confer with the instructor whenever either or both of them deem it advisable. **Prerequisite: One year of graduate work.**

307a-b RESEARCH PROBLEMS IN SECONDARY EDUCATION. (3) I, II, S Ligon
An independent research course. The student will confer with the instructor whenever either or both of them deem it advisable. **Prerequisite: One year of graduate work.**

308a-b RESEARCH PROBLEMS IN ELEMENTARY EDUCATION. (3) I, II, S Duncan
An independent research course. The student will confer with the instructor whenever either or both of them deem it advisable. **Prerequisite: One year of graduate work.**

321a-b RESEARCH PROBLEMS IN HIGHER EDUCATION. (3) I, II, S Taylor and Chamberlain
An independent research course. The student will confer with the instructor whenever either or both of them deem it advisable. **Prerequisite: One year of graduate work.**

EDUCATIONAL PSYCHOLOGY

Professors Ross and Hammonds

16 EDUCATIONAL PSYCHOLOGY. (3) II Ross and Hammonds
Application of psychology to the problems of learning and teaching.

118 EDUCATIONAL TESTS AND MEASUREMENTS FOR ELEMENTARY TEACHERS. (2) II, S Ross
The problems of measurement in the elementary school; formal and informal tests; marking systems, etc. Prerequisite: **One semester of Psychology.**

119 FOUNDATIONS OF ELEMENTARY EDUCATION. (3) I Ross
The psychology of the child in the primary and intermediate grades. **Prerequisite: One semester of Psychology.**

122 EDUCATIONAL TESTS AND MEASUREMENTS FOR HIGH SCHOOL TEACHERS. (3) I, II, S Ross
The problems of measurement in the junior and senior high shool, with special emphasis on standardized tests. The construction and use of new-type tests, use and limitations of traditional examinations, marking systems, etc., are also considered.

147 FOUNDATIONS OF SECONDARY EDUCATION. (3) I, II, S Ross
The psychology of the student in junior and senior high school. **Prerequisite: One semester of Psychology.**

216 SEMINAR IN TESTS AND MEASUREMENTS. (3) II, S Ross
A critical study of certain problems in measurement. Individual work. **Prerequisite: Education 122.**

223 EDUCATIONAL STATISTICS. (3) I, S Ross
A non-mathematical study of the applications of statistical and graphical methods to educational data.

254 PROBLEMS IN EDUCATIONAL PSYCHOLOGY. (3) I, S Ross
A critical survey of the conflicting schools of psychology, theories of learning, etc. **Prerequisite: One year of Psychology.**

ELEMENTARY EDUCATION

Associate Professors Duncan and Williams, and Miss Adams, Miss Beard, Mrs. Clark, Miss Conroy, Mrs. Haines, Miss Molloy, Miss Peerson and Miss Willson

20 INDUSTRIAL ARTS FOR ELEMENTARY GRADES. (2) I, S Haines
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.

42 ARITHMETIC IN ELEMENTARY GRADES. (3) I, S Duncan
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.

44 FUNDAMENTALS OF ELEMENTARY EDUCATION. (5) I, II, S Haines
This course is a prerequisite to practice teaching and is to prepare the student to take part in actual classroom teaching. The course is planned:

(1) To give a background for, and an understanding of, the organization and point of view of the modern elementary school.
(2) To help the students by reading and class discussion in directing learning of the skills and knowledge needed by elementary school children.
(3) To help the student evaluate theories and methods of teaching in the light of observation of good teaching.
(4) To help the student to understand the relationship of the home, school and community and to see the need for the cooperation of these agencies for the best development of the child.
(5) To help develop an attitude of industry, open-mindedness, initiative, cooperation and responsibility toward the teaching profession.

110 ADVANCED INDUSTRIAL ARTS. (2) II, S Haines
This course will deal primarily with the industrial processes involved in records and shelter suitable for classroom experimentation. As a result of work in this course the teacher should be able to guide children in the construction activities pertaining to the study of records and shelter. Some of the experiences he will receive will be in the fields of book binding, block printing, paper decorating, toy making, elementary woodwork, and interior decorating.

133 DIRECTED TEACHING IN THE ELEMENTARY SCHOOL. (10) I, II, S Duncan and Training Teachers
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 three credits in practice teaching 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 curriculum.**

141 PROBLEMS IN DIAGNOSTIC AND REMEDIAL READING. (3) S Duncan
A laboratory course in problems of prevention, diagnostic and remedial work in reading. An opportunity will be provided to observe demonstration of the use of instrumentation in diagnosis and correction of reading difficulties and the application of these clinical procedures to problem cases. Observation in the University Elementary School. This class will include problems of elementary and high school teachers and administrators. Two hours lecture and discussion and one hour laboratory.

172 TEACHING READING IN THE ELEMENTARY SCHOOL. (3) I, II, S Duncan
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.

173 TEACHING LITERATURE TO CHILDREN. (3) II, S Duncan
A study of the literature for children from kindergarten to Grade VI. Reading and book reports from various types: 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.

174 PRE-SCHOOL THEORY AND MANAGEMENT. (4) I, S Clark
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).

176 PRE-SCHOOL ORGANIZATION AND TEACHING. (4) II, S Clark
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.

196 SCIENCE IN THE ELEMENTARY SCHOOL. (S) I, S Estelle Adams
This course is planned to give a background of elementary science usable 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.

212 THE ELEMENTARY SCHOOL. (3) I, S Duncan

This course is designed to help the superintendent, elementary principal, and elementary supervisor in a better understanding of the modern elementary school. The activity program, objectives, research and study in the skills and content subjects of the elementary curriculum are discussed from the standpoint of supervision.

224a-c ORGANIZATION AND SUPERVISION OF STUDENT TEACHING. (3) I, II, S Williams, Duncan

This course has been planned for students preparing to do critic teaching in the fields of elementary and secondary education. Education 224a is a general course that will include the basic principles underlying the entire program. Education 224b will have to do with specific problems for critic teachers on the secondary level, while Education 224c will deal with problems on the elementary level.

229 THE ELEMENTARY PRINCIPAL. (3) II, S Duncan

This course deals with problems related to the elementary principalship, such as the professional preparation, selection and status of the principal; relation to other administrative officers, supervisors, teachers, pupils and parents; problems of attendance, discipline, health and records; the application of sound principles to the improvement of teaching. Emphasis will be placed on the community relationship of elementary principals and teachers and ways in which they may cooperate and improve the life of the community. Attention will also be given to problems presented by members of the class as outgrowth of their experiences.

308a-b RESEARCH PROBLEMS IN ELEMENTARY EDUCATION. (3) I, II, S Duncan

An independent research course. The student will confer with the instructor whenever either or both of them deem it advisable. **Prerequisite: One year of graduate work.**

HISTORY OF EDUCATION

Dean Taylor and Professor Patrick

117a HISTORY OF EDUCATION. (3) Patrick

This course is a survey of the history of secondary education from the Greek period to the present time.

117b HISTORY OF EDUCATION. (3) Patrick

A survey of the history of elementary education beginning with Athenian education and closing with present elementary education in America.

201a EARLY HISTORY OF EDUCATION IN THE UNITED STATES. (3) Patrick

A course in the history of the development of the public school system in the United States, covering the development of education among the American colonies, and of the states up to 1870. It is designed to give a background for the appreciation of the aims and purposes of modern education.

201b RECENT EDUCATIONAL HISTORY IN THE UNITED STATES. (3) Patrick

A course in recent educational history of the United States, since about 1870, covering more intensely the recent development of state-supported public education in the United States, with emphasis on

state supported education and the relationship of the states and federal government in promoting public education, with some attention to the development of private education. It is designed to give a background for the appreciation of the aims and purposes of modern education.

219 **GREAT EDUCATORS AND THEIR WORK. (3)** Patrick
A study of the lives and writings of the world's educators to enable the student to appreciate more fully the ideals, attitudes and contributions to society of the men and women in education who have served best.

220 **COMPARATIVE EDUCATION. (3) I, II, S** Taylor
A course giving comparisons of systems of education.

235 **HISTORY OF EDUCATION IN KENTUCKY. (3)** Patrick
A course designed to give the student an historical background of education in Kentucky.

237a-b **RESEARCH IN HISTORY OF EDUCATION. (3)** Patrick
An independent work course for students in history of education.

HOME ECONOMICS EDUCATION

Professors Parker and Spickard, and Miss Rider

160 **TECHNIQUE OF TEACHING HOME ECONOMICS. (3) I, II** Parker or Spickard
A study of methods of teaching as applied to home economics. **Prerequisites: H. E. 26, 6a and b, 29, 3, 51; Ed. 147.**

162 **DIRECTED TEACHING IN HOME ECONOMICS. (6) I, II** Parker or Spickard
Practical application of methods in teaching various phases of home economics. **Prerequisite: Ed. 160.**

165a-b **PROBLEMS IN VOCATIONAL EDUCATION. (3) II, S** Parker or Spickard
This course deals with the problems involved in teaching vocational homemaking in day, part-time, and evening schools.

261 **HOME ECONOMICS SUPERVISION. (3) I, II** Parker or Spickard
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.**

263 **CURRENT PROBLEMS IN HOME ECONOMICS EDUCATION. (3) S** **Parker or Spickard**
A study of some recent developments in the field of home economics education. **Prerequisites: Ed. 160 and 162; experience in teaching.**

264 **MODERN TENDENCIES IN HOME ECONOMICS EDUCATION. (3) S** Parker
This is a basic course for graduate students in home economics education. It is designed to acquaint students with modern tendencies in education. Some problems considered are the contribution of home economics to the general education of boys and girls, evaluation, and integration.

266a-c **SEMINAR IN HOME ECONOMICS EDUCATION. (3) S** Parker or Spickard
Provision is made for students to make individual investigations and report on special problems in home economics education.

267 DIRECTED SUPERVISION IN HOME ECONOMICS EDUCATION. (3) I, II Parker or Spickard
This course includes teaching home economics classes for observation, directing student teachers under the guidance of a supervising teacher, visiting schools with the itinerant teacher trainer in different sections of the state, and organizing teaching materials. This course may be taken parallel to or following Ed. 261. **Prerequisites: Two years' teaching experience and recommendation by the department of home economics education.**

268 HOME ECONOMICS CURRICULUM CONSTRUCTION. (3) S Parker or Spickard
A study of the underlying principles of curriculum building for junior and senior high school home economics. **Prerequisites: Ed. 160 and 162.**

269 ACHIEVEMENT TESTING IN HOME ECONOMICS. (3) S Parker
This course is intended to acquaint teachers of home economics with techniques used in measuring attainment in home economics in the junior and senior high school and college. **Prerequisite: Teaching experience.**

INDUSTRIAL EDUCATION

Professor May and Mr. Hankins

70 INDUSTRIAL EDUCATION. (3) I, II, S May
This in an informal course intended to give a working knowledge of the field of trade and industrial education as set up in the Federal and State Vocational Acts, and as they function in a vocational education program.

71a TRADE ANALYSIS AND COURSE PLANNING. (2) I, II, S May, Hankins
This course is planned to meet the needs of vocational teachers in the fields of coordination, shop instruction and related subjects in connection with day, part-time and evening schools. It is a prerequisite to 71b.

71b TRADE ANALYSIS AND COURSE PLANNING. (2) I, II, S May, Hankins
This is a continuation of 71a and consists of the assembling of the teaching material, that has been discovered in the analysis, into a course of study.

73 TEACHING RELATED SUBJECTS. (3) I, II, S May
The objective of this course is to acquaint the student with the techniques of handling the job of teaching the related technical subjects in the field of trade and industrial education

75 REORGANIZATION OF INDUSTRIAL ARTS. (2) S May
Due to the developments in the field of industrial education there is need for a course that will emphasize the cooperative relationships between industrial arts and vocational industrial education. This course is projected on this basis.

77 SHOP MANAGEMENT PROBLEMS. (2) I, II, S May, Hankins
This course has to do with industrial education in the school shop. It evaluates all types of activities in connection with this part of the educational program and gives due weight to each factor. Its economic value is of first importance.

78 THE CONFERENCE METHOD OF INSTRUCTION IN INDUSTRIAL EDUCATION. (2) I, II, S May, Hankins

Mature learners are entitled to a method of presenting subject matter that will allow free and constructive thinking. The conference method does this by developing situations and case studies which are handled by the Box-Head Analysis system of control.

79 DETERMINING RELATED SUBJECTS CONTENT. (2) I, II, S May

In vocational education there is a body of related technical knowledge, in addition to the shop experiences of the pupils, necessary to a complete training program. This course discovers this material and organizes it into courses for the related subjects teacher.

80 PRINCIPLES OF INDUSTRIAL EDUCATION. (2) I, II, S May

This course carefully summarizes the basic principles of industrial education, pulling out from the general principles of education those especially applicable to this specialized field of vocational education. Fundamentally these principles are the foundation of Education 171, The Philosophy of Vocational Education.

81 ANALYSIS OF LEARNING DIFFICULTIES IN INDUSTRIAL EDUCATION. (2) I, II, S May

This course has been planned to meet the needs of teachers of vocational subjects in the field of industrial education. An analysis will be made of the learning difficulties encountered in teaching trade and related subject courses and remedial measures will be studied.

108 COORDINATION TECHNIQUES IN INDUSTRIAL EDUCATION. (2) I, II, S May, Hankins

This is a course designed to meet the needs of persons functioning as coordinators in part-time or evening industrial education. It analyzes the social educational and economic responsibilities of the coordinator and ties up these findings with the local school program in a better system of student training and student accounting.

123 VOCATIONAL GUIDANCE. (3) S May

A course designed to give the teachers, principals, superintendents and welfare workers a comprehensive view of the factors in vocational guidance, the agencies contributing to or influencing life choices and an analysis of the human and economic resources of a given civic unit.

143 MODERN INDUSTRIAL ANALYSIS. (2) I, II, S May

This course is designed to meet the needs of persons who wish to secure a working knowledge of modern industrial organization, trends in industrial educational policies and the proper approach to and analysis of these problems as they affect the industrial vocational teacher.

170 PART-TIME GENERAL CONTINUATION TEACHER TRAINING. (3) I, II, S May

This is an analysis of the problems of the continuation school as they affect teacher preparation for the part-time program.

171 VOCATIONAL EDUCATION. (2) I, II, S May

This course is planned primarily for the advanced student in industrial education. It covers the general philosophy of vocational education as it is tied up with the problems and principles of industrial education.

183 METHODS IN INDUSTRIAL EDUCATION. (3) I May, Hankins

This course is planned to give the student a working knowledge of the most approved methods in instructional management, including lesson planning, in the field of vocational industrial education.

MUSIC EDUCATION

Associate Professor Capurso

251 PROBLEMS IN PUBLIC SCHOOL AND COMMUNITY MUSIC. (3) I, II, S Capurso

This course, open only to advanced students, will consider problems in teaching, supervising, organizing, and leading public school and community music activities. Students in service will have an opportunity to bring problems from their own school or community situation; and, when possible, the instructor will visit them in the field. Projects, demonstrations, readings, and discussion.

252 FIELD PROBLEMS IN MUSIC. (1) I, II, S Capurso

This course is designed to permit the teacher or leader in the field to work out his local problems as an independent graduate teaching project under the guidance of the music staff.

253 INDEPENDENT WORK IN MUSIC EDUCATION. (3) I, II, S Capurso

This course is designed for graduate students who undertake research problems in music education and is to be conducted in regular consultation with the instructor.

PHILOSOPHY OF EDUCATION

Dean Taylor, Professors Adams and Patrick, and Mr. Clifton, Mr. Starnes, and Mrs. Haines

35 INTRODUCTION TO EDUCATION. (3) I, II, S Adams

This course deals with the teacher, the teaching process, the school as a social agency and the philosophy of education.

114 EDUCATIONAL SOCIOLOGY. (3) I, S Patrick

A study in the application of sociological findings to the field of education within the school and home.

127 THE ELEMENTARY CURRICULUM. (3) I, S Haines

A study of the philosophy and techniques of curriculum construction and some practical work in construction.

175a-f MODERN EDUCATIONAL PROBLEMS. (3) S

A brief survey of some of the problems in modern education.

175g MODERN EDUCATIONAL PROBLEMS: EDUCATION OF HANDICAPPED CHILDREN. (3)

A discussion of procedures to be used in the education of the group of children who are handicapped physically, mentally and emotionally. Attention will be given to work with individual children who are home-bound as well as with groups.

175h MODERN EDUCATIONAL PROBLEMS: PROBLEMS IN EDUCATIONAL RADIO BROADCASTING. (3) S

This course is designed to acquaint teachers and school administrators with the problems and techniques of broadcasting educa-

tional programs. Actual practice with the principles and methods of preparing, producing and broadcasting educational material will be given. A part of the time of the course will be given to the use of the radio in schools.

186 VISUAL TEACHING. (3) I, S Clifton or Starnes

A course in methods and technique of visual instruction. Special emphasis is placed on charts, slides, graphs, maps, still pictures, motion pictures, and other visual aids, their effective use in teaching and the planning of outlines and lessons involving their use. Attention will also be given to the administration of visual aids in the school.

200 ADVANCED COURSE IN PHILOSOPHY OF EDUCATION. (3) I, S Adams

This is an advanced course dealing with the philosophy underlying the larger educational problems of today. **Prerequisite: 12 hours in Education.**

205 REVIEW OF CURRENT EDUCATIONAL LITERATURE. (3) II, S Adams

An extensive study of current educational literature as found in educational periodicals. **Prerequisite: 12 hours in Education.**

222 METHODOLOGY OF EDUCATIONAL RESEARCH. (3) I, S Taylor

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. **Prerequisite: 12 hours in education.**

226a-d PROBLEMS OF THE SECONDARY SCHOOL CURRICULUM (3) S

This course may deal with any problem arising in any field of the secondary school curriculum. It is exactly what its name indicates, a problem course. Students enrolling in this course will be required to leave on file with the College of Education a complete report of each problem studied.

227a PRINCIPLES OF CURRICULUM CONSTRUCTION. (3) I, S Adams

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. **Prerequisite: Teaching experience and 12 hours in education.**

227b TECHNIQUES IN CURRICULUM CONSTRUCTION. (3) II, S Adams

This course has to do with the techniques being used to determine content of courses of study. **Prerequisites: Teaching experience and 12 hours in Education.**

228a-d SEMINAR IN EDUCATION. (1) I

This course has been planned for graduate students majoring in education, to be given under the direction of the faculty of the College of Education.

230 PROBLEMS OF EDUCATIONAL SOCIOLOGY. (3) II, S Patrick

An advanced course in the application of sociology to the educational field. **Prerequisite: 12 hours in Education, including Ed. 114.**

240 CHARACTER EDUCATION. (3) S

This course will make an extensive survey of plans and methods of teaching character education in the best public school systems. It will take up such points as the relation between character and conduct, how character is correlated with intrinsic and extrinsic learning, the direct and indirect methods of presentation, and the contribution which other institutions than the school should make to character education.

245 ORGANIZATION OF AUDIO-VISUAL AIDS. (3) I Clifton or Starnes

The topics to be covered in this course are: beginning the audio-visual program, qualifications and duties of the audio-visual aids, sources and criteria for judging equipment and supplies, the audio-visual aids budget, projection mechanics, in-service teacher training.

246 MOTION PICTURES IN EDUCATION. (3) II, S Clifton or Starnes

The topics covered are: the history of the educational motion picture, technique in the use of films, educational scenario writing, grading and scoring films, motion picture appreciation.

SECONDARY EDUCATION

Professor Ligon, Associate Professors Duncan, Williams, and Capurso, Miss Anderson, Mr. Betz, Mrs. Gilb, Mrs. Haines, Mr. Keffer, Mr. Kemper, Mr. Kurachek, Miss Mason, Miss Peck, Miss Shipman, Miss Topham and Miss West

105 FUNDAMENTALS OF SECONDARY EDUCATION. (3) I, II, S Ligon

Deals with laboratory methods of instruction. Units: Fundamental processes, control, operation, administration.

107 SAFETY EDUCATION. (3) S

This course is designed to give teachers the knowledge, techniques, and skills for the teaching of safety education in all its aspects. Particular emphasis will be placed on driver education and the problems related thereto.

111 REMEDIAL READING IN THE SECONDARY SCHOOL. (2) II Duncan

A study of diagnostic and remedial work with reading disability cases in the junior and senior high school. This course is designed to enable the teacher to diagnose reading difficulties and to remedy them. Observation, case studies, and practice in remedial work with children will be required of all students. The course includes a critical study of the investigations and literature in the field.

142 DIRECTED TEACHING IN ART. (6) I, II, S Haines

This course has been planned for teachers who contemplate becoming supervisors of art in the public schools. **Prerequisites: Education (See Professional Major) and 18 hours in Art.**

153 DIRECTED TEACHING IN ENGLISH.
(6) I, II, S Anderson, Shipman

For seniors. Topics: Course of study, minimum essentials, materials, methods, testing. Part I, language and composition; Part II, literature. Observation and practice, five hours; conference, two hours. **Prerequisites: Education (See Professional Major) and 18 hours in English.**

154 DIRECTED TEACHING IN LANGUAGES.
(6) I, II, S West and Topham

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.**

155 DIRECTED TEACHING IN THE SCIENCES.
(6) I, II, S Kemper and Keffer

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.**

156 DIRECTED TEACHING IN MATHEMATICS.
(6) I, II, S Keffer

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.**

157 DIRECTED TEACHING IN THE SOCIAL STUDIES.
(6) I, II, S Peck and Shipman

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.**

169a DIRECTED TEACHING IN PHYSICAL EDUCATION.
(3) I, II Gilb and Kurachek

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.**

169b DIRECTED TEACHING IN PHYSICAL EDUCATION.
(3) I, II Gilb and Kurachek

A continuation of Education 169a.

177a DIRECTED TEACHING IN MUSIC.
(3) I, II Capurso and Mason

This course has been planned for teachers who contemplate becoming supervisors of music in the public schools. **Prerequisites: Education (See Professional Major) and 18 hours in Music.**

177b DIRECTED TEACHING IN MUSIC.
(3) I, II Capurso and Mason

A continuation of Education 177a.

193 DIRECTED TEACHING IN BUSINESS EDUCATION (6) I, II, S Betz

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. **Prerequisites: Education (See Professional Major) and 18 hours in Commerce**

214 THE SECONDARY SCHOOL. (3) I, S Ligon

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.

224a-c ORGANIZATION AND SUPERVISION OF STUDENT TEACHING. (3) I, II, S Williams and Duncan

This course has been planned for students preparing to do critic teaching in the fields of elementary and secondary education. Education 224a is a general course that will include the basic principles underlying the entire program. Education 224b will have to do with specific problems for critic teachers on the secondary level while Education 224c will deal with problems on the elementary level.

241 PROBLEMS IN TEACHING THE SOCIAL STUDIES. (3) S Peck

The purpose of this course is to acquaint the teacher with the most approved methods of teaching the social studies. Source materials dealing with the problems of teaching, such as research findings, yearbooks, and periodicals will be investigated and current practices in the best high schools of the country will be stressed.

242 PROBLEMS IN TEACHING ENGLISH. (3) S Anderson

The purpose of this course is to acquaint the teacher with the most approved methods of teaching English. Source materials dealing with the problems of teaching, such as research findings, yearbooks, and periodicals will be investigated and current practices in the best high schools of the country will be stressed.

243 PROBLEMS IN TEACHING MATHEMATICS. (3) S Keffer

The purpose of this course is to acquaint the teacher with the most approved methods of teaching mathematics. Source materials dealing with the problems of teaching, such as research findings, yearbooks, and periodicals will be investigated and current practices in the best high schools of the country will be stressed.

244 PROBLEMS IN TEACHING PHYSICS. (3) S

The purpose of this course is to acquaint the teacher with the most approved methods of teaching physics. Source materials dealing with the problems of teaching, such as research findings will be investigated and current practices in the best high schools of the country will be stressed.

249 EXTRA CURRICULAR ACTIVITIES. (3) S Ligon

Underlying principles, faculty activities, home room activities, student council, clubs, athletics, publications, dramatics, honor societies, commencements. **Prerequisite: 12 hours in Education.**

307a-b RESEARCH PROBLEMS IN SECONDARY EDUCATION. (3) I, II, S Ligon

This course is designed for students who want to work on special problems. **Prerequisite: Master's degree or equivalent.**

VOCATIONAL EDUCATION

Professors Hammonds and Woods

211 THE ADMINISTRATION OF VOCATIONAL EDUCATION. (3) I, II, S Hammonds or Woods

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 to state administration.

282 SPECIAL PROBLEMS IN VOCATIONAL EDUCATION. (3) I, II, S Woods

An independent work course for students interested in vocational education. Provision is made for the student to make individual investigations and reports on special problems.

COLLEGE OF COMMERCE

Dean Wiest, Professors Carter, Haun, Jennings, McIntyre, Martin, Palmer and Pittman, Associate Professors Carpenter, Lawrence, Moore and Sullivan, Assistant Professors Beals, Guy, Ketchum, and Tolman, and Instructor Bekker

1 **PRINCIPLES OF ECONOMICS. (3) I, II** Wiest and others
An examination of the fundamental principles of economics and the application of these principles to practical problems. **Not open to freshmen.**

2 **ECONOMIC HISTORY OF EUROPE. (3) I** Jennings and others
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 **ECONOMIC HISTORY OF THE UNITED STATES. (3) II** Jennings and others
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.**

6 **SECRETARIAL ACCOUNTING. (3) II** Lawrence
A study of accounting systems for the professions, small businesses, and institutions, where the secretary ordinarily keeps the records. **Prerequisite: Com. 7a.**

7a **PRINCIPLES OF ACCOUNTING. (4) I** Haun and others
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.**

7b **PRINCIPLES OF ACCOUNTING. (4) II** Haun and others
Continuation of 7a. Recitation, two hours a week; laboratory, four hours a week. **Not open to freshmen.**

8 **ECONOMIC GEOGRAPHY. (3) I** Carter
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.

9 **FORMS OF BUSINESS ORGANIZATION. (3) II** Tolman and others
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.

10 **PRINCIPLES OF MARKETING. (3) II** McIntyre and Moore
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: Com. 1.**

11 SALESMANSHIP. (2) I McIntyre and Moore
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: Com. 1 and 10.**

12 ECONOMIC GEOGRAPHY OF THE WESTERN HEMISPHERE. (3) II Carter
An intensive regional treatment of the agricultural, mineral and industrial resources of the Western Hemisphere; communication and transportation; foreign trade and its effect upon industrial progress.

13a SECRETARIAL PRACTICE, SHORTHAND. (3) I Guy
The theory of Gregg shorthand with sufficient practice in writing to develop skill and speed in writing. Secretarial duties and traits are given some consideration. Personal use as well as vocational values are emphasized. Credit for this course will not be given until 13b is completed. **Prerequisite: Eng. 1a-1b.**

13b SECRETARIAL PRACTICE, SHORTHAND. (3) II Guy
A continuation of Gregg shorthand with sufficient practice to develop a speed of from 90–100 words a minute in dictation. Some training is given in the use of office appliances, and in practical office work. **Prerequisite: Com. 13a or its equivalent.**

14a ADVANCED SECRETARIAL PRACTICE. (3) I, II Lawrence and Guy
This course combines shorthand and typewriting in the transcription of shorthand notes and the development of office proficiency. Accuracy and speed in transcribing is emphasized. Filing, operation of dictating, duplicating and other office appliances are taught. Three recitations a week. **Prerequisites: Com. 13a, 13b, 17a, 17b, or their equivalent.**

14b ADVANCED SECRETARIAL PRACTICE. (3) II Lawrence and Guy
A continuation of Commerce 14a with special emphasis on secretarial duties and traits. A speed of 125 words a minute in dictation and 35 words a minute in transcription is required. Three recitations a week. **Prerequisites: Com. 14a or its equivalent.**

15 APPLIED ECONOMICS. (3) II Sullivan and others
Fundamental aspects of money and banking, industrial efficiency, marketing, transportation, public utilities, public finance, social control, et cetera.

17a SECRETARIAL PRACTICE, TYPEWRITING. (2) I Lawrence and Guy
Theory and techniques in typewriting are included with a thorough study of form, style and arrangement of typewritten material. A speed of 35 words a minute is required. **Prerequisite: Eng. 1a and 1b.**

17b SECRETARIAL PRACTICE, TYPEWRITING. (2) II Lawrence and Guy
A continuation of Commerce 17a with emphasis on the development of speed and accuracy sufficient for vocational use. A speed of 50 words a minute is required. **Prerequisite: 17a.**

102 LABOR PROBLEMS. (3) I Carter
Insecurity, wages and income, substandard workers, industrial conflict; wage theories; the economics of collective bargaining; unionism in its structural and functional aspects; recent developments. **Prerequisite: Com. 1.**

103 TRANSPORTATION. (3) I Sullivan

Railways, waterways, highways, airways. Rates, service, management, regulation. **Prerequisite: Com. 1.**

104 PUBLIC FINANCE. (3) I Sullivan

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: Com. 1.**

105 MONEY AND BANKING. (3) II Wiest and Carpenter

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: Com. 1.**

106a ADVANCED ACCOUNTING. (3) I Haun and Beals

Principles of valuation and income determination. Statement arrangement. Corporation accounting. Manufacturing accounts. Advanced partnership accounting. **Prerequisites: Com. 7a and 7b.**

106b ADVANCED ACCOUNTING. (3) II Haun and Beals

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.

107 STATISTICAL METHODS. (3) I Palmer

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.**

109a BUSINESS LAW. (3) I Haun and Pittman

A survey of the principles of contracts, sales, bills and notes, and that portion of the law of torts applicable to business practices. **Prerequisite: Two years of commerce course.**

109b BUSINESS LAW. (3) II Haun and Pittman

Continuation of 109a.

110 BUSINESS CYCLES. (3) II Palmer

The nature and characteristics of the economic factors which underlie the cyclical fluctuations in business conditions; the methods of business and investment forecasting. **Prerequisites: Com. 1 and 107.**

111 ADVANCED SALESMANSHIP. (3) S McIntyre

This course is designed primarily for high school and college teachers who are required to give such work in their respective schools. Extensive reading; preparation and presentation of sales demonstrations; critical analysis of modern sales techniques and merchandising; credit management and market research will be considered. **Prerequisite: Com. 11 or consent of instructor.**

112a INDIVIDUAL WORK IN ECONOMICS. (2) I Staff

Each student makes reports of his studies to the class which is conducted on a seminar basis. 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.

112b INDIVIDUAL WORK IN ECONOMICS. (2) II Staff
Continuation of 112a.

113 AUDITING. (3) II Haun and Beals
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: Com. 7a and 7b.**

115 VALUE AND DISTRIBUTION THEORY. (3) I Sullivan
The major emphasis is on current theory.

117 CORPORATION FINANCE. (3) I Ketchum
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 reorganization procedure. **Prerequisites: Com. 1, 7a, 7b and 9.**

118 COST ACCOUNTING. (3) I Haun and Beals
The place of cost accounting in the general field of accounting, special records and cost statistics, application to particular businesses. **Prerequisites: Com. 7a and 7b.**

119 RETAIL MERCHANDISING. (2) I McIntyre
Selecting a business location, internal layout, departmentalization, merchandising control, store policies toward the public, training and management of personnel, and related subjects. **Prerequisites: Com. 1 and 10.**

121 ECONOMIC GEOGRAPHY OF THE EASTERN HEMISPHERE. (3) II Jennings
The agricultural, mineral, and industrial resources of the Eastern Hemisphere treated intensively by regions; communication and transportation; foreign trade and its effect upon industrial progress in the regions or countries. **Prerequisite: Com. 8 or consent of instructor.**

124 STATE AND LOCAL TAXATION. (3) II Martin
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. **Open only to seniors and graduates.**

125 EVOLUTION OF ECONOMIC INSTITUTIONS. (3) I, II Jennings
The rise of economic institutions such as property rights, capital formation, contractual labor, et cetera, as influenced by the family, the city, state, nationalism, commerce, finance, the manor, the guilds, and the industrial revolution. **Prerequisites: Com. 2 or consent of instructor**

126 ECONOMICS OF PUBLIC UTILITIES. (3) I Carter
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; regulations; current problems; accounting. **Prerequisite: Com. 1.**

127 INTERNATIONAL ECONOMICS POLICIES. (3) II Sullivan
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: Com. 1.**

129 **CREDIT AND STATEMENT ANALYSIS. (2) I** Haun and Beals

The theory underlying credit-granting; credit administration; analysis and interpretation of financial statements. **Prerequisite: Com. 7a.**

130 **LABOR LEGISLATION. (3) II** Carter

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: Com. 1.**

131 **INVESTMENTS. (3) II** Ketchum

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: Com. 105 and 117.**

132a **C. P. A. PROBLEMS. (3) I** Haun and Beals

The 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: Com. 106a and 106b.**

132b **C. P. A. PROBLEMS. (3) II** Haun and Beals

Continuation of 132a.

133 **INCOME TAX PROCEDURE. (3) I** Haun and Beals

The preparation of income tax returns for individuals and corporations of all classes and a practical application of principles of accounting. **Prerequisites: Com. 106a and 106b.**

134 **ADVANCED ECONOMIC HISTORY OF THE UNITED STATES. (3) II** Jennings

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 sophomore nor to students who have had Com. 3 except when doing graduate work.**

135 **ADVANCED MARKETING. (3) II** Moore

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: Com. 10.**

136 **SALES MANAGEMENT. (3) I** McIntyre

The case method will be used, supplemented with outside reading and written reports. **Prerequisite: Com. 11 or the consent of the instructor.**

137 **PROBLEMS IN MANAGEMENT. (3) II** Carter

Emphasis is placed upon factory management, but an attempt is made to coordinate managerial aspects of business in its entirety. 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.**

138 INVESTIGATION OF BUSINESS PROBLEMS. (3) II Palmer
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. Prerequisite: Com. 150 or 151.**

140 ADVERTISING CAMPAIGNS. (3) II McIntyre
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: Com. 11, Psychology 5, or the consent of the instructor.**

142 INDEX NUMBERS. (2) II Palmer
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.**

143 LIFE INSURANCE. (3) I Carpenter
Economics of life insurance; organization and control; special forms of life insurance; fundamental principles of rate-making. **Prerequisite: Com. 1.**

144 PROPERTY AND CASUALTY INSURANCE. (3) II Carpenter
Public control; nature of contracts, analysis of reserve functions and rate-making processes. **Prerequisite: Com. 1.**

145 PROBLEMS IN OFFICE MANAGEMENT. (3) I Lawrence
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.

147 AMERICAN BUSINESS LEADERS. (2) I Jennings
Biographical sketches of a selected list of men including their business achievements and their relationships to the economic and social life of their time. **Prerequisites: Com. 3 or consent of instructor**

148 EUROPEAN BUSINESS LEADERS. (1) II Jennings
Biographical sketches of a selected list of men including their business achievements and their relationships to the economic and social life of their time. **Prerequisites: Com. 2 or consent of instructor**

149 MARKET ANALYSIS. (3) I McIntyre
Training in the application of scientific method to research in fields of marketing. A major marketing investigation will be conducted by the class. **Prerequisites: Com. 10 and a course in statistics.**

150 BUSINESS STATISTICS. (2) I Palmer
Advanced statistical techniques with special application in economics and business; a survey of the work of government and private research organizations; a study of general research methods, indicating the importance of each type; and training in the application of statistical and other techniques to business data. **Prerequisite: Math. 24 Elem. Theory of Statistics.**

151 SECRETARIAL STATISTICS. (3) I Palmer

To be taken by students pursuing the Secretarial-Training curriculum. The rules of accuracy in computation, tabulation of data, graphing of business data, organization charts, statistical maps, the operation of calculators and other statistical machinery, the sources of statistical materials of interest to business. **Prerequisite: Com. 17a Secretarial Practice, Typewriting.**

152 INCOME AND WEALTH. (2) I Palmer

The definition of these concepts, the relations between them, their relations to economic theory, their measurement on a national, regional, local, corporate, and individual basis, with particular reference to Kentucky, and the causes of differences in income and wealth between different localities. **Prerequisite: Com. 1 and 107.**

153 THE ECONOMICS OF CONSUMPTION. (2) II Sullivan

The place of consumption in economic theory with special emphasis upon its relation to the phases of the business cycle including the institutional background of our consumer habits; sources of information on consumption; and government regulation of consumer standards. **Prerequisite: Junior standing.**

154 URBAN REAL ESTATE. (3) II Ketchum

Urban land economics; the growth and planning of urban communities; survey of the real estate business and institutions; essentials of real estate law and contracts; the financing of real estate transactions; the problem of property valuation and appraisal; the management of real estate properties; the problem of ownership versus rental; the problem of real estate securities as investments. Governmental activities. **Prerequisite: Com. 117.**

202a-f SEMINAR. (1 to 3 each.) I, II Palmer and others

An extended 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. Maximum of six credits but the amount a student could earn in one semester is flexible. From 1 to 3 credits a semester depending on the amount of work student is doing.

203 HISTORY OF ECONOMIC THOUGHT. (3) I Wiest

A survey of the history of economic thought from the ancient period to about the end of the classical school. **Prerequisite: Com. 1.**

204 ECONOMIC HISTORY OF THE UNITED STATES PRIOR TO 1860. (2) I Jennings

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 Com. 134 for graduate credit.**

205 ECONOMIC HISTORY OF THE UNITED STATES SINCE 1860. (2) II Jennings

A continuation of Com. 204, but may be taken independently. **Not open to students who have taken Com. 134 for graduate credit.**

206 MUNICIPAL FINANCE. (3) I Martin

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 incidentally. Each individual conducts one or more independent investigations.

207 LITERATURE OF PUBLIC FINANCE. (3) I Martin

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.

208 ADVANCED ECONOMIC THEORY. (3) I Sullivan

A critical examination of current literature on economic problems and policies. **Prerequisite: Com. 1.**

209 COMPARATIVE BANKING AND MONETARY SYSTEMS. (3) II Carpenter

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.

210 RESEARCH STATISTICS. (2) II Palmer

The place of statistics in research method, the theory of statistical averages, the application of advanced statistical methods to economic data, the statistical meaning of economic concepts and the testing of economic theory. **Prerequisite: An elementary course in Statistics.**

211 ADVANCED MONEY AND BANKING. (3) II Wiest

A general survey of the subject is attempted with the emphasis upon its historical and theoretical aspects.

215 SURVEY OF ECONOMIC THEORY SINCE THE AUSTRIAN SCHOOL. (3) II Wiest

This course is virtually a continuation of Course 203.

216 BUSINESS CYCLE THEORY. (2) I Palmer

An advanced course including a reading of important theories and studies of the business cycle. **Prerequisite: Com. 110.**

Courses in Mathematics of Finance, Advertising, Personnel Administration and Business English are given in various departments of the College of Arts and Sciences.

PART IV

SPECIAL SERVICES OF THE UNIVERSITY

SPECIAL SERVICES OF THE UNIVERSITY

While the major function of the University is that of instruction, it renders important service to the state in other ways. Through the efforts of individual members of the staff and by means of special agencies and publications it makes important contributions in research, experimentation, and public service. The divisions, the publications, and the institutes or meetings through which such work is carried on are described in the following paragraphs.

AGRICULTURAL EXPERIMENT STATION

The Kentucky Agricultural Experiment Station was established in accordance with an act of Congress, approved March 2, 1887, entitled, "An Act to establish Agricultural Experiment Stations, in connection with the Agricultural Colleges established in the several states under the provisions of an act approved July 2, 1862, and under the acts supplementary thereto," and an act of the Legislature of the State of Kentucky, approved February 20, 1888, accepting these provisions.

The Experiment Station is established as an institution for investigation and research. Through carefully planned experiments it investigates problems of basic and applied science and interprets them in terms of the needs of the state. The main station farm of 600 acres is located at Lexington. Two substations, one of 15,000 acres at Quicksand and the other of more than 600 acres at Princeton, greatly facilitate investigations dealing with regional problems.

The Experiment Station publishes regularly bulletins and circulars giving the results of its research.

AGRICULTURAL EXTENSION DIVISION

The Division of Agricultural Extension carries the teachings of the College of Agriculture to rural folk in every county in Kentucky. Field agents representing all departments, county farm agents, and county home agents cooperate in building a program of work for the state and for each county.

The Farm and Home Convention is held during the last week in January. It is the purpose of this convention to bring together representative men and women from all sections of the state to discuss problems of the farm and the home, with the view of developing more profitable farming and more satisfying home life.

The Junior Week program is held annually early in June. At this time county champion demonstration teams and champions in

the various projects compete for state championships. Several hundred boys and girls from all over the state attend for the entire week.

Short courses are held from time to time to meet the needs of special groups. The Extension Division publishes extension circulars written in popular form for use in developing state and county programs of work.

BUREAU OF BUSINESS RESEARCH

The Bureau of Business Research was established to carry on special investigations in economic and business problems supplementary to the work of teaching staff members. The Bureau works primarily in the business problems of federal, state, and local government. Recently, for example, it has done service-research work for such agencies as the Kentucky Legislative Council, Unemployment Compensation Commission, Department of Revenue, numerous city school systems, and the Congressional Special Committee to Investigate Unemployment and Relief. A monthly review of business and economic conditions is published.

BUREAU OF GOVERNMENT RESEARCH

The Bureau of Government Research has two chief purposes: (1) the study of problems confronting the various agencies of city, county and state government, and (2) supplying information to any government unit or public official of the state, and assisting in the solution of public problems of these agencies and officials. In furthering these purposes, the Bureau is constantly engaged in investigations of public problems, and the collection and analysis of data concerning governmental activities. During the year the Bureau publishes not less than three research studies, in addition to giving information on many specialized topics, and consulting with numerous public officials. It cooperates with various agencies, of both a research and service nature, in studying public problems. These agencies include the Tennessee Valley Authority, the Works Progress Administration, the Governmental Research Association, the State Planning Board, municipal leagues, and the Social Science Research Council. The Bureau is both a service and research arm of the University.

BUREAU OF SCHOOL SERVICE

This Bureau functions as the research division of the College of Education in conducting original investigations, and in rendering special services to the schools in the solution of their problems. The latter function includes advisory service of all sorts, ranging from casual consultation on minor problems up to and including complete

and comprehensive survey programs. Advisory service is being rendered along the lines of financial reorganization, building programs, curriculum revision, testing of pupil achievement, and problems of a similar nature. The scope of the work of the Bureau of School Service embraces the entire field of education, from the elementary school through the college and university.

The Bulletin of the Bureau of School Service is a quarterly publication in which are reported the results of the studies carried on in the Bureau.

BUREAU OF SOURCE MATERIALS IN HIGHER EDUCATION

The purpose of this Bureau is to provide a research laboratory for graduate students in the field of higher education by acquiring and preserving source material in this field and by locating and listing the material available elsewhere.

Special emphasis is placed on source material pertaining to the following:

1. Institutions of higher learning, land-grant and private academies; the official publications, including minutes of the faculty and the board of trustees, the contribution of the faculty and alumni, including their publications, inventions and special services.
2. Trends in education: Charters, admission and degree requirements of the colleges in the United States by twenty-five-year periods.
3. Special collections, such as Kentuckiana founded by Professor Noe and the International Textbook Exhibit.

CHILD GUIDANCE SERVICE

The Child Guidance Service offered at the University, through the cooperation of the Lexington Junior League, provides expert psychological diagnosis and recommendations regarding personality difficulties and mental development for children or others brought to it by the schools, welfare organizations, juvenile court and parents. In this it cooperates with the medical clinics. It also provides clinical training for graduate students.

PERSONNEL BUREAU

The University Personnel Bureau has undertaken special service to students who have been inadequately prepared or are not adjusted to their academic work. In these services it utilizes part of the time of five members of the psychology department. They have specialized in handling various problems of students who come to the Bureau or are sent to it for prolonged guidance concerning

their vocational, training, or personal problems. The Bureau has charge of testing the scholastic aptitude, English, and mathematical ability of all new students. These data form a basis for sectioning freshman classes in English and mathematics, and for advising students. It is also continually engaged in research bearing on the procedures in use in the University. The results are published in its Kentucky Personnel Bulletin.

PUBLICITY BUREAU

The Publicity Bureau has the twofold function of informing residents of Kentucky and elsewhere of the manifold activities of the University of Kentucky, and of endeavoring to encourage people to take advantage of the many services the institution has to offer. These activities are carried out by means of newspapers, magazines, special publications, radio broadcasts, fair exhibits, student goodwill organizations, school contracts, and personal appearance of University speakers and University musical groups. The mountain Radio Listening Center System and radio station WBKY, Beattyville, are also under the supervision of the Publicity Bureau.

TEACHER PLACEMENT BUREAU

The Teacher Placement Bureau is maintained for the purpose of assisting graduates of the University of Kentucky in securing teaching positions. This service is without charge. It is open to all graduates of the University and to graduate students. The function of the Bureau is to present the candidates for positions to the administrative officers of school boards. The Bureau is located in Room 115 of the Education Building.

EDUCATIONAL CONFERENCE

Annually in October there is held on the campus of the University of Kentucky a joint meeting of the educational conference and the Kentucky Association of Colleges and Secondary Schools. At this meeting teachers and administrators from the elementary and secondary schools and from the colleges and universities of the state come together to hear addresses on current educational problems by outstanding authorities and to discuss in sectional meetings their mutual problems. The conference for 1941 will be held October 24 and 25.

LAW JOURNAL

The Kentucky Law Journal is published quarterly in Novemvember, January, March and May. It consists of the following distinct divisions or parts: (a) leading articles; (b) notes and case comments by students; and (c) book reviews.

The most important purpose of the publication is to train students to write. The recent cases discussed are mainly from Kentucky. The leading articles are written by scholars or practicing laywers in the various fields of the law and are intended to be of benefit to practitioners.

PUBLIC SERVICE INSTITUTES

The University promotes, organizes, and administers short institutes or study courses for various groups of public officials. From time to time such institutes have been held for peace officers, firemen, welfare workers, finance officers, bankers, legislators, etc.

SCHOOL CONTESTS

The Department of University Extension sponsors the Kentucky High School Speech League, the Kentucky High School Music Festivals, and the Kentucky High School Achievement tests. These events are held on dates in April and May and are preceded by earlier district or regional meetings.

PART V

THE ADMINISTRATIVE AND INSTRUCTIONAL PERSONNEL OF THE UNIVERSITY

ALPHABETICAL LIST OF THE ADMINISTRATIVE, INSTRUCTIONAL, AND EXPERIMENT STATION STAFF[1]

HERMAN LEE DONOVAN, M.A., Ph.D., LL.D.,
President*

THOMAS POE COOPER, B.S., D.Sc.,
Acting President†

Adams, Estelle, M.A., Second Grade, University School

Adams, Jesse Earl, M.A., Ph.D., Professor of Philosophy of Education, Head of the Department of Philosophy of Education; Director of the Summer Session

Adams, Richard P., M.A., Instructor in English

Allen, Harry Raymond, M.A., Chemist, Food and Fertilizer Control, Experiment Station

Allen, Richard Sweetnam, M.S., Professor of Anatomy and Physiology, Head of the Department of Anatomy and Physiology

Allen, Rutillus Harrison, Ph.D., Associate Professor of Land Economics; Assistant in Land Economics, Experiment Station

Allen, William Ray, M.A., Ph.D., Professor of Zoology

Allison, Leslie, A.B., Second Lieutenant, U.S. Army, Assistant Professor of Military Science

Allton, Donald Wilbur, B.M., M.M., Instructor in Music

Anderson, Charles Herbert, Professor of Engineering Design, Emeritus

Anderson, Elizabeth Thomas, M.A. in Ed., Home Economics, University High School

Anderson, Grace, M.A., English, University High School

Anderson, Walter Sewell, M.A., Professor of Genetics, Emeritus

Armstrong, Watson, M.A., Assistant Professor of Agricultural Education

Armstrong, William Davis, B.S., Horticulturist, Experiment Station

Asher, Eston Jackson, M.A., Associate Professor of Psychology

Atwood, Mabel Clair, B.S., Field Agent in Home Management, Agricultural Extension Division

‡Averitt, Saxe Dabney, M.S., Chemist, Experiment Station

Baker, Robert Henry, M.S., Ph.D., Assistant Professor of Chemistry

Baker, W. Maurice, M.A., Assistant Professor of Education, Head of the Department of Distributive Occupations

Barber, Harold, Head Herdsman, Experiment Station

---

[1] A degree is not listed when it is clearly implied by one following.
* July 1, 1941.
† July 1, 1940 to June 30, 1941.
‡ Emeritus, July 1, 1941.

Barkenbus, Charles, Ph.D., Professor of Organic Chemistry
Barkley, Marie Rodes, M.A., Assistant Professor of Home Economics
Barkman, John Orville, B.S., Assistant Professor of Dairy Manufactures; Field Agent in Manufactures, Agricultural Extension Division
Barnett, Brinkley, B.M.E., Associate Professor of Electrical Engineering
Barnhart, C. Raymond, M.A., Assistant Professor of Art
*Barrett, William S., Lt. Colonel, U.S. Army, Associate Professor of Military Science
Baugh, Lucy Gaines, B.S., Seed Analyst, Experiment Station
Baute, Edward A., B.S., Field Agent in Poultry Improvement, Experiment Station
Beals, Wendell Everett, M.A., C.P.A., Assistant Professor of Accounting
Beard, Rhea, B.S. in Ed., M.S., Fourth Grade, University School
Beaumont, Henry, Ph.D., Associate Professor of Psychology
Bedford, Matthew Hume, Ph.D., Professor of Physical Chemistry
Beebe, Morris Wilson, M.S., Associate Professor of Metallurgical Engineering
Beers, Everett J., B.S., Field Agent in Cream Grading, Experiment Station
Beers, Howard W., Ph.D., Professor of Rural Sociology; Rural Sociologist, Experiment Station.
Beiter, Jean Sandell, M.S., Instructor in Home Economics
Bekker, Konrad, Dr. Jur., Ph.D., Instructor in Economics
Best, Harry, LL.B., Ph.D., LL.D., Professor of Sociology, Head of the Department of Sociology
Betz, Leslie, B.S. in Com., M.A., Commercial Subjects, University High School
Bigge, Adolph E., M.A., Ph.D., Professor of German, Head of the Department of German Language and Literature
*Blanding, Sarah Gibson, M.A., Dean of Women; Associate Professor of Political Science
Boles, Stanley Atwood, M.A., Associate Professor in Department of Athletics; Ticket Sales Manager
†Bolin, Patti, B.S., M.A., Home Economics, Versailles High School
Bondurant, John Harvey, M.S., Assistant in Farm Management, Experiment Station
Borden, Harold, Jr., B.S., Music, University School
Bortner, Charles E., M.S., Assistant Agronomist, Experiment Station
Boyd, G. Robert, M.A., Assistant, Bureau of School Service
Boyd, Paul Prentice, M.A., Ph.D., Dean, College of Arts and Sciences; Head of the Department of Mathematics and Astronomy; Professor of Mathematics

---

† Resigned, June, 1941.
* Resigned, ~~September, 1940.~~ May 1941 eff. after 1st term of SS

Boyd, Thomas D., B.S., Acting Superintendent of Buildings and Grounds

Boyden, Ruth, M.A., Assistant in Home Economics, Experiment Station

Bradford, Lawrence Allen, M.S., Assistant Professor of Farm Management

Brady, George Keyports, Ph.D., Professor of English

Brannan, John E., Major, U.S. Army, Associate Professor of Military Science

Brauer, Alfred Charles, M.A., Ph.D., Professor of Zoology

Brewer, Lawrence Condit, B.S., Assistant in Short Courses and Exhibits, Agricultural Extension Division

Brooks, Jesse Byron, B.S., Field Agent in Agricultural Engineering, Agricultural Extension Division

Brown, Aubrey J., M. S., Assistant in Markets, Experiment Station

Brown, Henry Corley, B.S., Field Agent in 4-H Club Work, Agricultural Extension Division

Brown, Linwood Arnold, Pharm.D., Ph.G., Head of Department of Public Service Laboratory, Experiment Station

Brown, Marion Clay, M.A., Assistant Professor of Mathematics

Bruner, Dorsey William, D.V.M., Ph.D., Associate Bacteriologist, Department of Animal Pathology, Experiment Station

Bryant, Thomson Ripley, M.S., Assistant Director of Agricultural Extension Division; Professor of Agricultural Extension

Buckner, Garrett Davis, Ph.D., Chemist in Charge of Animal Nutrition, Experiment Station

*Bureau, Ernest Adolphe, B.S., Ph.B., E.E., Professor of Electrical Engineering

†Burnam, Anita, M.A., Field Agent in 4-H Club Work, Agricultural Extension Division

*Byers, George Boyd, M.S., Assistant in Farm Management, Experiment Station

Caldwell, Lowry McReynolds, B.S., Assistant Superintendent, Western Kentucky Substation

Callihan, Anne Worthington, A.B., Assistant Professor of Art

Campbell, Jerry Lee, B.S., Field Agent in Cream Grading, Experiment Station

Capurso, Alexander Alexis, B.S. in Mus., M.A., Ph.D., Executive Director of the Department of Music; Assistant Professor of Music

Card, Dana George, Ph.D., Associate Professor of Agricultural Economics; Assistant in Markets, Experiment Station

Carpenter, Cecil C., M.S., Ph.D., Professor of Economics

Carpenter, Dauris C., B.S., Captain, U.S. Army, Assistant Professor of Military Science

---

* On leave 1940-41.
† Resigned July 1, 1941.

Carrel, William Joseph, C.E., Professor of Structural Engineering
Carter, John L., A.B., 1st Lieutenant, U.S. Army, Assistant Professor of Military Science
Carter, Lucian Hugh, M.A., Ph.D., Professor of Economics
Cass, Norma Beatrice, A.B., B.S., M.A. in L.S., Assistant Professor of Library Science
Caton, Stanley, B.S., Field Agent in Poultry, Agricultural Extension Division
Cawood, Charles D., M.D., C.P.H., Assistant Professor of Hygiene and Public Health
Chamberlain, Leo Martin, M.A., Ph.D., Registrar and Professor of Education
Chambers, Alvin Lee, C.E., Assistant Professor of Testing Materials
Chambers, John Sharpe, M.S., M.D., Head of the Department of Hygiene and Public Health; Director of Dispensary
Cheek, Frank Jacobs, A.B., C.E., M.S., Professor of Sanitary Engineering
Clark, Carl McKinley, M.S., Assistant Professor of Markets and Finance, Experiment Station
Clark, Louise Swinford, A.B., Kindergarten, University School
Clark, Thomas D., M.A., Ph.D., Associate Professor of History
Clark, William Edwin, M.A., Instructor in English
Clark, William Glenn, M.A., Part-time Instructor in Mathematics
Clay, Mary S., M.A., Instructor in Home Economics
Cleek, Dorothy, M.A., Psychologist, University School
Clifton, Louis, M.A., Director of University Extension; Professor in University Extension; Lecturer in Education
Cohen, Leon Warren, M.A., Ph.D., Professor of Mathematics
Conroy, Katherine, M.A., Sixth Grade, University School
Cook, Gardner F., M.A., Lecturer in Child Welfare, Social Work
Cooper, Thomas Poe, B.S., D.Sc., Dean, College of Agriculture; Director of Experiment Station; Director of Agricultural Extension Division; Acting President of the University, 1940-41
Crawford, Albert Byron, M.A., Ph.D., Assistant, Bureau of School Service
*Croft, Lysle Warrick, M.A., Ph.D., Assistant Dean of the College of Arts and Sciences; Secretary, Personnel Committee; Part-time Assistant Professor of Psychology
Crouse, Charles Stevens, E.M., Professor of Metallurgical Engineering, Head of the Department of Mining and Metallurgical Engineering
†Crutcher, Maury Julian, B.M.E., Superintendent of Building and Grounds
Cullis, Lela, Instructor in Applied Music (Organ)

* Transferred to Department of Military Science 1940-41, 1941-42.
† Died October 5, 1940.

Curnutt, Vivian Lee, M.A., Field Agent in Home Economics, Agricultural Extension Division

Curtis, Henry Ernest, M. S., Head, Department of Fertilizer Control, Experiment Station, Emeritus

Cutler, John L., M. A., Instructor in English

Daily, Grace McDaniel, B.S. in H.E., Home Economics, Lafayette High School

Dantzler, Lehre Livingston, A.M., Litt.D., Professor of Philology; Head of the Department of English

Davenport, Iris, M.A., Field Agent in Home Economics, Agricultural Extension Division

Deen, Encil, B.S., Seed Inspector, Experiment Station

*Deephouse, Laura, M.S., Assistant Professor of Home Economics

†Denton, Edith, B.S. in H.E., Home Economics, Versailles High School

Diachun, Stephen, M.S., Ph.D., Assistant in Plant Pathology, Experiment Station

Didlake, Mary LeGrand, M.S., Associate Entomologist and Botanist, Experiment Station

Dimmick, Graham B., Ph.D., Professor of Psychology

Dimock, William Wallace, D.V.M., Professor of Veterinary Science; Head of the Department of Pathology, Experiment Station

Doll, Edward B., M.S. in E.E., Ph.D., Associate Professor of Electrical Engineering

Donnelly, Howard, J.D., Lt. Colonel, U.S. Army, Professor of Military Science and Tactics; Head of the Department of Military Science and Tactics

Downing, Harold Hardesty, B.C.E., M.S., Ph.D., Professor of Mathematics (In charge of Astronomy)

Doyle, George Fergison, A.B., M.D., F.A.C.S., Part-time Physician, University Dispensary

Draper, Chester H., Sergeant; Instructor in Military Science

Driver, R. L., Assistant Professor of Anatomy and Physiology

Duncan, May Kenney, M.A., Associate Professor of Elementary Education; Head of the Department of Elementary Education

Dunn, Marvin, M.S., Instructor in Chemistry

Pupre, J. Huntley, Ph.D., Professor of History

Eads, Albert I., M.S., Assistant in Marketing, Experiment Station

†Eblen, Amos Hall, A.B., LL.B., S.J.D., Professor of Law

Edwards, Philip Rarick, Ph.D., Bacteriologist, Department of Animal Pathology, Experiment Station

Elliott, Norris Raymond, B.S., Professor of Landscape Architecture and Floriculture; Field Agent in Horticulture, Agricultural Extension Division

---

* On leave 1940-41.
† Resigned February 1, 1941.

Ely, Fordyce, M.S., Ph.D., Professor of Dairy Husbandry; in charge of Dairy Section

Emmert, Emory Myers, M.S., Ph.D., Assistant Professor of Horticulture; Assistant in Horticulture, Experiment Station

Emrath, Philip Cassily, E.M., Associate Professor of Mining Engineering

Erikson, Statie Estelle, Ph.D., Professor of Home Economics; Head of the Department of Home Economics

Errington, Burnard J., D.V.M., Ph.D., Pathologist, Department of Animal Pathology, Experiment Station

Evans, Alvin E., M.A., Ph.D., J.D., Professor of Law; Dean of the College of Law

Evans, C. M., M.A. in Ed., Assistant, Bureau of School Service

Fallis, Robert White, Assistant Bacteriologist, Public Service Laboratory, Experiment Station

Farquhar, Edward Franklin, M.A., Professor of Literature

Farris, Elgan Brooks, C.E., Associate Professor of Engineering

Feltner, James Michael, Field Agent in 4-H Club Work, Extension Division

Fergus, Ernest Newton, Ph.D., Professor of Farm Crops; Agronomist in charge of Pastures and Forage Crops, Experiment Station

Fish, Ernest Ellsworth, M.S., Field Agent in 4-H Club Work, Agricultural Extension Division

Fisk, Edward W., Assistant Professor of Art

Fitschen, Fred William, Inspector of Feeds and Fertilizers, Experiment Station

Foster, James Douglas, M.S., Inspector in Charge of Creamery License Section, Experiment Station

Fowler, Frank Charles, M.A., Associate Professor of English; Director of Guignol Theatre

Freeman, Joe Frank, M.S., Assistant Agronomist, Experiment Station

Freeman, Louise Barton, Ph.D., Part-time Assistant Professor of Geology

Freeman, William Edwin, A.B., E.E., Professor of Electrical Engineering; Head of the Department of Electrical Engineering; Assistant Dean of the College of Engineering

Fried, Katherine, Seed Analyst, Experiment Station

Funkhouser, William Delbert, M.A., Ph.D., D.Sc., Professor of Zoology; Professor of Anthropology; Head, Department of Zoology; Dean of the Graduate School

Gabbard, James Lawrence, M.S., Ph.D., Instructor in Chemistry

Gallaway, William Francis, M.A., Ph.D., Associate Professor of English

Gardner, John Samuel, M.A., Field Agent in Horticulture, Agricultural Extension Division

Garman, Harrison, D.Sc., Professor of Entomology, Emeritus

Garrigus, Wesley Patterson, Ph.D., Professor of Animal Husbandry; Head of the Department of Animal Husbandry; Chairman, Animal Industry Group

Garside, Matthew Stanley, B.S., Field Agent in 4-H Club Work, Agricultural Extension Division

Gault, Lelah Vaughn, B.S., Assistant Chemist, Feed and Fertilizer Control, Experiment Station

Geiger, Clarence, M.A., Instructor in English

Gilb, Stella, A.B., B.P.E., Hygiene and Physical Education, University School

Gillig, John T., C.E. in Arch., Associate Professor of Construction Engineering

Gillis, Ezra L, A.B., Director, Bureau of Source Materials in Higher Education

*Good, Edwin Stanton, M.S., Professor of Animal Husbandry; Head of the Department of Animal Husbandry; Chairman, Animal Industry Group

Graddy, Ivan Clay, M.S., Assistant State Agent, Agricultural Extension Division

Graham, James Hiram, C.E., Dean of the College of Engineering

†Griffin, Gerald, A.B., Publicity Agent, Department of Athletics

‡Griffin, Robert J., A.B., M.D., Associate Professor of Hygiene and Physician in the Dispensary

Grundmeier, Edith, M.S., Assistant Professor of Home Economics

Guy, Hollis Preston, M.A., Assistant Professor of Commerce

Haag, William George, Jr., M.S., Curator, Museum of Anthropology and Archaeology; Assistant Professor of Anthropology and Archaeology

Haak, Pearl J., B.S., Assistant State Home Demonstration Agent, Agricultural Extension Division

Hackensmith, Charles William, M.A., Associate Professor of Physical Education

**Hagman, Ida C., M.A., Field Agent in Home Management, Agricultural Extension

Hageman, Richard H., M.S., Assistant Chemist, Department of Chemistry, Experiment Station

Hahn, Thomas Marshall, M.S., Ph.D., Associate Professor of Physics

Haines, Ruth, M.A., Instructor in Public School Art and Elementary Education

Hall, Ellery Lewis, M.A., Assistant Professor of History

---

* Emeritus, July 1, 1941

† Transferred to Department of Military Science 1940-41.

‡ Resigned March 20, 1941.

** On leave 1940-41.

Hamilton, William Brooks, M.S., Ph.D., Associate Professor of Hygiene; Bacteriologist
Hammonds, Carsie, M.S., Ph.D., Professor of Agricultural Education; Head of the Department of Agricultural Education
Hankins, Thomas L., M.S., Instructor in Industrial Education
Harms, Amanda Helen, B.S., Assistant in Animal Nutrition, Experiment Station
Harris, Charles Edgar, B.S., Field Agent in Poultry; Agricultural Extension Division
Harris, George Moreland, M.S., Field Agent in Dairying, Agricultural Extension Division
Haugen, Ruth E., M.A., Assistant Professor of Social Work
Haun, Robert Dee, M.A., J.D., C.P.A., Professor of Accounting
Hawkins, Robert Dawson, M.E., M.S., Professor of Applied Mechanics
Hegeman, Daniel V., Ph.D., Assistant Professor of German
Heinz, Wilbur August, M.S., Associate Professor of Hygiene
Helton, Stella Elizabeth, M.S., Instructor in Home Economics; in charge of University School Cafeteria
Henson, Lawrence, M.S., Assistant Agronomist in Forage Crops Investigations, Department of Agronomy, Experiment Station
Hernandez, J. Eduardo, M.A., Ph.D., Assistant Professor of Romance Languages
*Hill, Henry Harrington, M.A., Ph.D., Dean of the University
Hinton, Cecil M., B.S. in Agr., Assistant Field Agent in Poultry Improvement, Experiment Station
Hoagland, Marjorie F., A.B., Asssistant to the Editor, Agricultural Extension Division
Hodge, Edwin S., M.S., Ph.D., Assistant Chemist and Spectroscopist, Department of Chemistry, Experiment Station
Hodgkiss, William Searles, Ph.D., Assistant Chemist, Experiment Station
Holmes, Henry Bert, M.A., Ph.D., Assistant Professor of Romance Languages
Hopkins, James F., M.A., Instructor in History
Horine, John Sherman, M.E., Associate Professor of Engineering Drawing
Horlacher, Levi Jackson, M.S., Ph.D., Professor of Animal Husbandry; Assistant Dean in Resident Teaching, College of Agriculture
Horsfield, Margaret Bennett, M.A., Diploma d'Etudes Francaises de l'Universite de Montpelier, 1928; Assistant Professor of Romance Languages
Howard, Noel Judson, B.S., Inspector, Creamery License Section, Experiment Station
Hoy, Henry S., Technical Sergeant, Inspector in Military Science

* July 1, 1941.

Huddleston, Joseph Jenkins, M.A., Assistant Professor of Physical Education

Hull, Floyd Edgar, D.V.M., Professor of Veterinary Science; Associate Veterinarian, Experiment Station

Humphrey, James Ellison, B.S., Field Agent in Poultry, Agricultural Extension Division

Hunt, Russell Aubrey, M.S., Field Agent in Tobacco, Agricultural Extension Division

Imlay, Florence, M.A., Field Agent in Home Economics, Agricultural Extension Division

Insko, Wyatt Marion, Jr., M.S., Associate Professor in charge of Poultry Section

Jackson, William Edward, Jr., B.For., F.Engr., Field Agent in Forestry, Agricultural Extension Division

Jayne, Edgar P., M.A., Chemist, Department of Animal Pathology, Experiment Station

Jeffrey, Robert Newell, Ph.D., Plant Physiologist, Experiment Station

Jennings, Walter Wilson, M.A., Ph.D., Professor of Economics

Jett, Carter Coleman, M.E., Professor of Machine Design

Jewett, Howard Herman, M.A., Assistant Research Entomologist, Experiment Station

John, Fritz, Ph.D., Associate Professor of Mathematics

Johnson, Edward Marshall, Ph.D., Associate Plant Pathologist, Experiment Station

Johnson, James Richard, B.M.E., Professor of Applied Mechanics, Emeritus

Johnston, William Clarkson, B.S., Field Agent in Agronomy, Agricultural Extension Division

Jones, Carl Wilfred, B.S., Field Agent in 4-H Club Work, Agricultural Extension Division

Jones, Roger Walter, Superintendent, Robinson Experiment Substation

Jones, Sadocie Connellee, M.S., Field Agent in Agronomy, Agricultural Extension Division

Jones, Theodore Tolman, M.A., Ph.D., Professor of Ancient Languages, Head of the Department of Ancient Languages and Literatures; Dean of Men

Karraker, Perry Elmer, M.A., Professor of Soils; Agronomist in Soil Technology, Experiment Station

Karsner, Milo G., M.A., Assistant Professor of Physical Education

Keffer, J. Leroy, M.S., Chemistry and Mathematics, University High School

Kelley, James Byron, B.S. in A.E., B.S. in M.E., Professor of Agricultural Engineering; Agricultural Engineer, Experiment Station

Kemper, Durbin Collins, M.A., Science, University School

Kendall, Thomas Alexander, M.E., Research Assistant in Department of Mines and Metallurgy
Kenney, Ralph, B.S., Field Agent in Agronomy, Agricultural Extension Division
Ketchum, Marshall D., M.S., Ph.D., Associate Professor of Economics
Kilpatrick, Elmer James, M.S., Assistant State Agent, Agricultural Extension Division
King, Margaret Isadora, A.B., B.S., University Librarian; Instructor in Library Science, part-time
Kinker, Elmer O., Staff Sergeant, Instructor in Military Science
Kinney, Edmund J., B.S., Professor of Farm Crops; Agronomist in charge of Tobacco and Cereal Investigations, Experiment Station
Kirwan, Albert D., A.B., Professor in Department of Athletics; Head Football Coach
Klein, Maryalys E., Ph. D., Instructor in Bacteriology
Knapp, Charles Merriam, Ph.D., Professor of History
Knight, Grant Cochran, M.A., Professor of English
Koppius, Otto Townsend, Ph.D., Professor of Physics
Kouns, Mary King, M.A., Instructor in Physical Education
Krewson, Charles Fleming, M.S., Ph.D., Instructor in Chemistry
Kuiper, John, M.A., Professor of Philosophy; Head of the Department of Philosophy
Kurachek, Peter William, M.A., Part-time Instructor in Physical Education; Physical Education, University School
Lacy, Edith, M.A., Field Agent in Home Economics, Agricultural Extension Division
Lampert, Carl Albert, B.M., Professor of Music; Head of the Department of Music
Latimer, Claiborne Green, Ph.D., Professor of Mathematics
Latzke, Verna, M.S., Instructor in Home Economics
Lawrence, Armon Jay, M.A., Associate Professor of Commerce and Education; Head of Department of Business Education (College of Education)
LeStourgeon, Flora Elizabeth, Ph.D., Associate Professor of Mathematics
Lewis, Chester Arthur, B.S., Editor, Agricultural Extension Division
Lewis, Mildred, B.S. in Music, Part-time Instructor in Music
Lickert, Raymond Henry, B.S., Assistant State Agent, Agricultural Extension Division
Ligon, Moses Edward, M.A., LL.D., Professor of Secondary Education; Head of the Department of Secondary Education; Director of the Placement Bureau
*Limburg, Mildred King, M.A., Kindergarten, University School

* Resigned September 1, 1940.

Link, Harold Forest, M.S., Assistant State Agent, Agricultural Extension Division

Littell, Mary Lee, A.B., Seed Analyst, Experiment Station

Lofink, Phil, First Lieutenant, U.S. Army, Assistant Professor of Military Science

Logan, Lulie Elizabeth, A.B., Assistant State Home Demonstration Agent, Agricultural Extension Division

Lowry, Samuel Jechonias, B.S., Superintendent Western Kentucky Experiment Substation

Lunde, Robert Gerhard, M.A., Assistant Professor of History

McBrayer, Paul, A.B., Part-time Instructor in Department of Athletics; Assistant Basketball Coach

McDaniel, Alice Marrs, A.B., Seed Analyst, Experiment Station

McFarlan, Arthur Crane, Ph.D., Professor of Geology; Head of the Department of Geology

McFarland, Frank T., Ph.D., Professor of Botany; Head of the Department of Botany

McGuire, Francis T., Ph.D., Assistant Professor of Physical Metallurgy

McGuire, Henry S., Jr., B.S. in Med. Tech., Assistant Bacteriologist, Public Service Laboratory, Experiment Station

McHargue, James Spencer, Ph.D., D.Sc., Chemist; Head of Department of Chemistry, Experiment Station

McInteer, Berthus Boston, M.S., Ph.D., Associate Professor of Botany

McIntyre, Robson Duncan, M.S. in Commerce, Professor of Marketing and Salesmanship

McKenney, Garnett Jennings, B. S., Field Agent in 4-H Club Work, Agricultural Extension Division

McKitrick, John Leslie, B.S., Field Agent in Agricultural Engineering and Soil Management, Agricultural Extension Division

McLaughlin, Marguerite, A.B., Assistant Professor of Journalism

McVey, Frank LeRond, Ph.D., LL.D., L.H.D., President Emeritus; Professor of Agricultural Economics

MacFarlane, David L., M.S., Assistant Professor of Farm Economics; Assistant in Farm Economics, Experiment Station

MacLaury, Donald Wayne, M.S., Assistant in Poultry and Genetics, Experiment Station

Magill, Wilbur William, B.S., Field Agent in Horticulture, Agricultural Extension Division

Magurean, Charles, M.M., Instructor in Music; Director of University Band

Mahan, Charles Alfred, M.S., State Agent, Agricultural Extension Division

Mangelsen, Fred, Supervisor of Machine Shop

Mann, Frank, Trainer, Department of Athletics

*Manning, John Walker, M.A., Ph.D., Professor of Political Science; Director, Bureau of Government Research
†Martin, James Henderson, Ph.G., Assistant Chemist, Public Service Laboratory, Experiment Station
Martin, James Walter, M.A., Professor of Economics; Director of Bureau of Business Research
Martin, Laura Katherine, M.A., Associate Professor of Library Science
Mason, Arnold C., B.S., Assistant Professor of Geology
Mason, Lela, M.A., Music, University School
Mathews, Robert, Inspector, Feeds and Fertilizer, Experiment Station
Maxson, Ralph Nelson, Ph.D., Professor of Inorganic Chemistry; Head of the Department of Chemistry
Maxwell, E. S., M.D., Part-time Professor of Clinical Pathology
May, Augustas Noah, B.S., Professor of Industrial Education; Head of the Department of Industrial Education
May, James Warren, M.E., Associate Professor of Heating and Ventilating Engineering
Meader, Arthur Lloyd, B.A., Assistant Chemist, Public Service Laboratory, Experiment Station
Meece, Leonard E., M.A., Ph.D., Assistant Professor of Educational Administration
Meier, Florence Phillips, A.B., Technician, Department of Animal Pathology, Experiment Station
Melcher, Columbus Rudolph, M.A., LL.B., LL.D., Professor of German Language and Literature, Special Assignment
Meyer, Andre Johannes, B.S. in M.E., Professor of Aeronautical and Mechanical Engineering
Meyer, Marvin Clinton, B.S., M.A., Ph.D., Instructor in Zoology
Miles, LeRoy, M.B.A., Captain, U.S. Army, Assistant Professor of Military Science
‡Miller, Fannie Herman, M.A., Speech and Dramatics, University High School
Miller, Harold Franklin, B.S., Assistant in Agronomy, Experiment Station
Miller, Richard Clarence, M.S., Field Agent in Animal Husbandry, Agricultural Extension Division
Miner, James Bert, B.S., LL.B., M.S., Ph.D., Professor of Psychology; Head of the Department of Psychology; Director of University Personnel Bureau
Mitchell, John Richard, A.B., Assistant Professor of Chemistry
**Mitchell, John Stapp, M.A., Mathematics, University High School

---

* On leave 1940-41.
† Emeritus July 1, 1941.
‡ Resigned July 1, 1941.
** Died February 23, 1941.

Molloy, Jeanette Elliot Robinson, M.A., Fifth Grade, University School

Monroe, Zelma, A.B., B.S., Assistant State Home Demonstration Agent, Agricultural Extension Division

Moore, Henry Boian, B. S. in Com., M.B.A., Associate Professor of Economics

Moore, Ruth A., M.S., Instructor in Home Economics

Moreland, Roy, A.B., LL.B., D.J., Professor of Law

Morland, J. W., M.A., LL.B., J.D., Visiting Professor of Law, 1940-41

Morrison, Alice Martha, M.S, Instructor in Home Economics

Morrison, Henry Bartlett, M.S., Ph.D., Assistant Professor of Dairying; Assistant in Dairying, Experiment Station

Morton, Margaret, A.B., Seed Analyst, Experiment Station

Moseley, Frank O'Rear, A.B., Assistant Professor in Department of Athletics; Assistant Football Coach

Mumford, Mary, M.S., Assistant Professor of Home Economics

Murray, Frank, A.B., LL.B., S.J.D., Professor of Law

Myers, Eugene, A.B., First Lieutenant, U.S. Army, Instructor in Department of Athletics; Assistant Football Coach; Assistant Professor of Military Science

Nelson, Vincent E., A.B., Assistant Professor of Geology

Nesius, Ernest Joseph, M.S., Assistant in Farm Management, Experiment Station

Newbury, Edward, M.A., Assistant Professor of Psychology.

Nicholls, William Durrett, M.S., Ph.D., Professor of Farm Management; Head of the Department of Farm Economics, Experiment Station

Noe, James Thomas Cotton, M.A., Litt.D., Professor of Education, Emeritus

Nollau, Louis Edward, M.E., Professor of Engineering Drawing

Nutter, John William, Superintendent of Dairy Farm, Experiment Station

O'Bannon, Lester Severance, B.M.E., Research Engineer, Experiment Station

Ogle, Robert B., M.Mus., Instructor in Music

O'Keefe, Daniel, M.S., Lecturer in Psychiatric Information for Social Work

Olney, Albert Jackson, M.H., M.S., Professor of Horticulture, Head of the Department of Horticulture

Oyler, Merton Dale, M.S., Assistant Professor of Rural Life Studies; Assistant in Rural Life Studies, Experiment Station

Palmer, Edgar Zavitz, Ph.D., Professor of Economics

Palmer, Vivien Marie, M.A., Ph.D., Associate Professor of Social Work; Head of the Department of Social Work

Pardue, Louis Arthur, M.S., Ph.D., Associate Professor of Physics

Parker, Ethel Lee, M.A., Professor of Home Economics Education; Head of the Department of Home Economics Education

Patrick, Wellington, M.A., Ph.D., Professor of History of Education; Head of the Department of History of Education
*Peak, David Howard, LL.B., M.A., Business Agent
Peck, Anna Browning, M.A., Social Sciences, University High School
Peerson, Nell, M.A., First Grade, University School
Pence, Sallie Elizabeth, M.A., Ph.D., Assistant Professor of Mathematics
Perkins, Fred, Technical Sergeant, Instructor in Military Science
Peter, Alfred Meredith, M.S., D.Sc., Professor of Soil Technology, Emeritus
Peterson, Frank D., A.B., University Comptroller
Phillips, Carroll Davidson, M.S., Assistant in Marketing, Experiment Station
†Pike, C. E., B.S., Assistant, Markets and Rural Finance, Experiment Station
‡Pinney, Oliver H., M.D., Associate Professor of Hygiene and Physician in Dispensary
Pittman, William Henry, A.B., LL.B., Professor of Law
Plummer, Leonard Niel, M.A., Ph.D., Associate Professor of Journalism; Head of the Department of Journalism
Polk, Tasker Peter, D.V.S., Field Agent in Veterinary Science, Agricultural Extension Division
Portmann, Victor R., B.J., Assistant Professor of Journalism
Potter, Merwin Elwood, M.A., Professor of Physical Education; Head of the Department of Physical Education
Poundstone, Albert Bruce, M.S., Field Agent in Farm Management, Agricultural Extension Division
Price, Hugh Bruce, Ph.D., Professor of Agricultural Economics; Head of the Department of Markets and Rural Finance
Price, Walter Allen, M.S., Professor of Entomology; Head of the Department of Entomology and Botany, Experiment Station
Proctor, Roy Estes, M.S. in Agr., Field Agent in Farm Management, Agricultural Extension Division
Pryor, Joseph William, M.D., Professor of Anatomy and Physiology, Special Assignment
**Rabin, Marvin, A.B. in Ed., Music, University School
Ramsay, Bertrand Pettus, M.S., Ph.D., Associate Professor of Physics
Randall, Frank Hall, A.B., LL.B., S.J.D., Professor of Law
Randle, Stacy B., Ph.D., Chemist, Department of Feed and Fertilizer, Experiment Station
Rannells, Edward Warder, A.B., Professor of Art; Head of the Department of Art

---

* Emeritus, July 1, 1941.
† Resigned Feb. 4, 1941.
‡ On leave, 1940-41.
** Resigned February 1, 1941.

Rapp, Karl E., Jr., M.S., Assistant Chemist, Department of Chemistry, Experiment Station

Ratliff, Margaret M., M.A., Ph.D., Assistant Professor of Psychology

Reeves, John Estill, M.A., Instructor in Political Science

Rhoads, McHenry, M.A., Ph.M., LL.D., Professor of Education, Emeritus

*Rhoads, Wayland, M.S., Field Agent in Animal Husbandry, Agricultural Extension Division

Richardson, John Shelby, B.Mus., Instructor in Applied Music (Piano)

Rider, Leona M., M.S., Instructor in Home Economics Education

Ringrose, Arthur T., Ph.D., Assistant Professor of Poultry Husbandry

Ritcher, Paul Osborn, M.A., Ph.D., Assistant Entomologist, Experiment Station

Robbins, Earl Glenn, M.S., Agriculture, Lafayette High School

Roberts, George, M.S., Professor of Agronomy; Assistant Dean, College of Agriculture; Head of the Department of Agronomy

Roberts, John Bissell, M.S., Assistant in Markets, Experiment Station

Roberts, William Lewis, M.A., J.D., S.J.D., Professor of Law

Rose, Harold James, B.S. in Ind. Chem., M. S., Instructor in Chemistry

Rose, James Joseph, B.S., Microscopist in Field Control, Experiment Station

Ross, Clay Campbell, M.A., Ph.D., Professor of Educational Psychology; Head of the Department of Educational Psychology

Rupert, Joe, A.B., Assistant Professor in Department of Athletics; Head Track Coach; Assistant Football Coach

Rupp, Adolph F., M.A., Professor in Department of Athletics; Head Coach of Varsity Basketball

Ryland, Hobart, M.A., Docteur de l'Universite'; Professor of Romance Languages; Head of the Department of Romance Languages

Sander, Arnold R. C., Major, U.S. Army, Associate Professor of Military Science

Sanders, Irwin T., Ph.D., Associate Professor of Sociology

Saunier, Stephen Thaddeus, Supervisor of Metallurgical Laboratory

Scherago, Morris, B.S., D.V.M., Professor of Bacteriology; Head of the Department of Bacteriology

Schick, Blaine Wilhelm, M.A., Assistant Professor of Romance Language

---

* On leave 1941.

Seay, Maurice F., M.A., Professor of Educational Administration; Head of the Department of Educational Administration; Director, Bureau of School Service

*Seeds, Frances, M.S., Assistant Professor of Home Economics

Sellards, Henry Grady, B.S., Field Agent in Animal Husbandry, Agricultural Extension Division

Semmons, Mildred, B.S., M.A. in L.S., Professor of Library Science; Head of the Department of Library Science

Server, Alberta Wilson, M.A., Ph.D., Diploma de Suficiencia, Centro de Estudios, historicos de Madrid; Assistant Professor of Romance Languages

Shacklette, Hansford Threlkeld, M.S., Instructor in Botany

Shannon, Jasper Berry, Ph.D., Associate Professor of Political Science

Shaver, Robert Ezekiel, C.E., Associate Professor of Civil Engineering

Shedd, Oliver March, M.S., Research Chemist, Experiment Station

Shipman, Martha Virginia, M.A., English and Social Science, University High School

Shively, Bernie Armstead, M.A., Professor in Department of Athletics; Head of the Department of Athletics; Director of Intercollegiate Athletics

†Short, John Anderson, LL.B., Master Sergeant, U.S. Army, Instructor in Military Science

Smee, James C., B.S., Second Lieutenant U.S. Army, Assistant Professor of Military Science

Smith, Cleo Dawson, M.A., Instructor in English

Smith, Harriet H., B.S. in Med. Tech., Instructor in Bacteriology

Smith, J. Allan, Ph.D., Bulletin Editor, College of Agriculture

Snodgrass, Grace L., A.B., Librarian, Experiment Station

South, Dudley Eugene, M.A., Ph.D., Associate Professor of Mathematics and Astronomy

Spencer, Jack Taif, M.S., Ph.D., Assistant in Agronomy, Experiment Station

Spickard, Ronella, M.S., Professor of Home Economics Education

Starnes, W. Gayle, M.A., Assistant Professor and Assistant Director of University Extension; Administrative Assistant, Office of the President

Steele, Dewey G., M.S., Ph.D., Assistant Professor of Genetics; in charge section of Genetics

Stewart, Olus Jesse, M.S., Ph.D., Associate Professor of Chemistry

Stout, Florence Offutt, Professor of Physical Education

Sullivan, Merrell Rodman, M.A., Associate Professor of Economics

Summers, George P., M.S., Field Agent in Marketing, Agricultural Extension Division

---

* Leave of absence Jan. 1 to June 30, 1941.

† Retired February 1, 1941.

Sutherland, William Robert, A.B., Assistant Professor of English
Tabb, William Roy, B.S. in Agr., M.S. in Ed., Instructor in Agricultural Education
*Tarnopol, Lester, M.S., D.Sc. in Met., Assistant Professor of Metallurgy
Taylor, Edgar Lewis, D.V.M., Assistant Veterinarian, Department of Animal Pathology, Experiment Station
Taylor, William Septimus, M.S., Ph.D., Professor of Education; Dean of the College of Education
Templeton, William Cheley, Jr., M.S., Instructor in Farm Crops
Terrell, Daniel Voiers, C. E., Professor of Civil Engineering; Head of the Department of Civil Engineering
Terrell, Willis Granville, Inspector of Feeds and Fertilizers, Experiment Station
Terry, George Sylvester, M.A., Bacteriologist, Public Service Laboratory, Experiment Station
Thomas, Frank Carlton, A.B., M.D., Part-time Physician, University Dispensary
Threlkeld, Dorothy Elizabeth, B.S., Field Agent in 4-H Club Work, Agricultural Extension Division
Thurman, Gordon Owen, Supervisor of Mechanical and Electrical Engineering Laboratories
Tilson, Howard Gilbert, M.S., Nursery Inspector, Experiment Station
Titsworth, Lila, B.S. in Med. Tech., Instructor in Bacteriology
Todd, Jack R., M.A., Analyst, Department of Agronomy, Experiment Station
Todd, Jarvis, M.A., Assistant Professor of Physics
†Tolman, William A., M.A., Assistant Professor of Economics
Topham, Laura, M.A., C.E.F., French, University School
Townsend, Lee Hill, Ph.D., Assistant Professor of Agricultural Entomology
Trimble, Ernest Greene, Ph.D., Associate Professor of Political Science
Truitt, J. P., B.S., Agriculture, Lafayette High School
Tucker, Willis Carleton, M.A., Assistant Professor of Journalism
Turner, Job Darbin, B.Ped., LL.B., Head of the Department of Feed and Fertilizer Control, Experiment Station
Tuthill, Edward, Ph.D., Professor of History; Head of the Department of History
Tuttle, Franklin Elliott, M.A., Ph.D., Professor of Chemistry, Special Assignment
Valleau, William Dorney, Ph.D., Professor of Plant Pathology; Pathologist, Experiment Station

* Resigned June 30, 1941.
† On leave 1941-42.

Vandenbosch, Amry, Ph.D., Professor of Political Science; Head of the Department of Political Science

Vaughn, Erle Cleveland, A.B., Field Agent in Improved Seed Production, Experiment Station

Vennes, Leon A., M.S., Field Agent in Markets, Agricultural Extension Division

Voll, Joseph J., B.S., Superintendent of Poultry Farm

Waltman, Clair Smith, M.S., Assistant Professor of Horticulture; Assistant in Horticulture, Experiment Station

Walton, Sylvan Brooks, M.E., Assistant Professor of Mechanical Engineering

Warburton, F. W., Ph.D., Associate Professor of Physics

Ward, Margaret Byrn, M.A., Home Economics, Lafayette High School

Ward, William Smith, M.A., Instructor in English

Warren, Margaret, A.B., Instructor in Physical Education

*Walters, Dewey E., M.S., Instructor in Chemistry

Watson, Noel Lester, B.S., Field Agent in Cream Grading, Experiment Station

Weaver, Ralph Holder, M.S., Ph.D., Professor of Bacteriology

Webb, Louise Gray, Librarian, College of Engineering

Webb, Mary Allen Steers, M.S. in H.E., Home Economics, Bryan Station School

Webb, William Snyder, M.S., D.Sc., Professor of Physics, Head of the Department of Physics; Professor of Archaeology; Head of the Department of Anthropology and Archaeology

Weeks, Martin Edward, Ph.D., Assistant in Soils, Experiment Station

Welch, Earl George, B.S., Field Agent in Agricultural Engineering; Agricultural Extension Division

Weldon, Myrtle, M.A., State Leader of Home Demonstration Agents, Agricultural Extension Division

West, Mary Lucille, M.A., Languages, University High School

West, Perry, M.E., Professor of Steam and Power Engineering; Head of the Department of Mechanical Engineering

†Westerfield, Clifford, D.V.M., Assistant Veterinarian, Experiment Station

‡Whitaker, Paul Knowlton, M.A., Assistant Professor of German

White, Bennett Sexton, Jr., M.A., Ph.D., Assistant Professor of Agricultural Economics and Assistant in Markets and Cooperation, Experiment Station

White, Geneva, A.B. in Ed., Assistant in Kindergarten, University School

---

* Resigned March 19, 1941.
† Resigned September 30, 1940.
‡ On leave 1941-42.

White, Helen McMichael, B.S., Assistant State Home Demonstration Agent, Agricultural Extension Division

White, Martin Marshall, M.A., Ph.D., Professor of Psychology, Acting Assistant Dean of the College of Arts and Sciences, and Executive Secretary of Personnel Office

Whitehouse, James William, M.S., State Leader in 4-H Club Work, Agricultural Extension Division

Wiest, Edward, M.A., Ph.D., Professor of Economics; Dean of the College of Commerce

Wiggin, G. H., B.S., Instructor in Forestry; Forester, Robinson Substation

Wilford, Edward James, M.S., Professor of Animal Husbandry; in charge of Meats Laboratory; Assistant in Animal Husbandry, Experiment Station

Williams, John Davis, M.A., Ed.D., Associate Professor of Education; Director, University Schools

Williams, Robin M., M.S., M.A., Instructor in Rural Sociology; Assistant in Rural Sociology, Experiment Station

Willson, Louise, M.A., Third Grade, University School

Wilson, William Clark, B.S., Assistant State Agent, Agricultural Extension Division

Wofford, Azile May, M.S., Assistant Professor of Library Science

Wofford, Jesse L., Private U.S. Army, Instructor in Military Science

Wolfe, Helen H., M.A., Assistant Professor of Social Work

Wood, Lucy Gragg, A.B., B.S., Part-time Instructor in Library Science; Librarian University School

*Woods, Ralph Hicks, M.A., Ph.D., Professor of Agricultural Education

Yates, Lawrence, M.A., Assistant Professor of English

Young, David Marion, M.S., Assistant Professor of Geology; Curator of Museum

Young, Earl Robert, M.S., Instructor in Agricultural Engineering

---

* On leave 1940-41.

ADMINISTRATIVE, SECRETARIAL, AND CLERICAL ORGANIZATION

OFFICE OF THE PRESIDENT

Herman Lee Donovan, M.A., Ph.D., LL.D., President of the University*
Thomas Poe Cooper, B.S., D.Sc., Acting President†
W. Gayle Starnes, M.A., Administrative Assistant
Jane Jarvis Nichols, Secretary
Lucy Roberta Hogan, A.B., Stenographer

OFFICE OF THE DEAN OF THE UNIVERSITY

Henry Harrington Hill, M.A., Ph.D., Dean of the University

COLLEGE OF ARTS AND SCIENCES

Paul Prentice Boyd, M.A., Ph.D., Dean
Lysle Warrick Croft, M.A., Ph.D., Assistant Dean‡
Martin Marshall White, M.A., Ph.D., Acting Assistant Dean**
Idie Lee Turner, B.S., Secretary
Willena Duncan, Stenographer

Greenwood Cocanougher, Secretary, Department of Athletics
Mary Elizabeth Doyle, A.B., Secretary to the Assistant Dean
Mary Anne Dunne, A.B., Secretary of Department of Military Science
Helen F. Farmer, A.B., Part-time Secretary, Department of Art
Ella Elizabeth Johnston, A.B., Part-time Secretary, Department of Psychology
Vera W. Gillespie, A.B., Part-time Secretary, Department of Journalism
Anne Lang, A.B., Part-time Secretary, Department of English
Edith Love, Secretary, Department of Chemistry
W. Lee McDaniel, Military Storekeeper
Nancy Miller, A.B., Librarian-Secretary-Reviser, Department of Library Science
Ellen Minihan, A.B., Secretary, Department of Physics
Henrietta Moore, A.B., Secretary, Department of Political Science
Ruby H. Murphy, A.B., Secretary, Department of Music
Margaret O'Connell, A.B., Secretary, Department of Physical Education
Katherine W. Owens, Secretary, Department of Hygiene and Public Health
Bettie Boyd Wadlington, M.A., Librarian, Department of Music

---

* July 1, 1941.
† July 1, 1940 to July 1, 1941.
‡ Transferred to Military Science 1941.
** For April, May, and June, 1941, and for 1941-42.

COLLEGE OF AGRICULTURE, EXPERIMENT STATION, AND EXTENSION DIVISION

Thomas Poe Cooper, B.S., D.Sc., Dean and Director

George Roberts, M.S., Assistant Dean

Levi Jackson Horlacher, M.S., Ph.D., Assistant Dean in Resident Teaching

Thomson Ripley Bryant, M.S., Assistant Director of Agricultural Extension

Oleva L. Ginocchio, Secretary to the Dean and Director, Experiment Station

Susan Kidd Slaughter, Secretary to the Director of Extension

Elizabeth Sloan, A.B., Stenographer

Coleman Rogers Smith, B.S. in Com., Accountant

CLERICAL STAFF, TEACHING DIVISION

Sophia Campbell

Mary Lou Guyn

CLERICAL STAFF, EXPERIMENT STATION

Katherine Bascom
Evon Bordes, A.B.
Edna Brumagen, A.B.
Ethel V. T. Caswell
Jessie Frazer Caswell
Alvis Derrickson
Mary Dolan
Frances Irvin Eversole, A.B
Sarah Bonta Gentry, A.B.
Mary Leigh Goodwin
Williamina M. Guinn
Lucille Graves
Eleanor Gregory
Gertrude Elizabeth Hanley
Eugenia Johnson
Nellie Mae Lawrence
Dorothy Linville
Roxie Robinson Mathews
Fannie Bush Merritt
Martha Jayne Michler
Margaret Gentry Morris
Paul Pinney, A.B.
Mattie Ramsey
Frances Ray
Opal H. Raymer
Mary K. Robinson
Elizabeth Wyatt Rouse
Georgene Rumrill, A.B.
Mary Bronston Utterback
Anna Wallis, A.B.
Luzelle Penley Williams, A.B.

CLERICAL STAFF, EXTENSION DIVISION

Dora Baker
Lucille Bush
Margaret Bruce Cruise, A.B
Nettie C. Croghan
Pauline Elliston
Katherine Fried
Adeleen Gilbert
Dorothy Joy Lewis, A. B.
Katherine T. McAtee
Marietta Gerard Meeks
Margaret C. Ryan
Violette Shankland
Virginia Singleton
Mary E. Stilwell
Dorothy M. Watkins, A.B.

COLLEGE OF ENGINEERING

James Hiram Graham, C.E., Dean
William Edwin Freeman, A.B., E.E., Assistant Dean
Ethel Jelley, Secretary
Martha Barton Fields, Clerk
Cecil Bertram, Clerk
Beatrice R. Skidmore, Clerk, Administrative Offices

COLLEGE OF LAW

Alvin E. Evans, M.A., Ph.D., J.D., Dean
Ewing Cannon Baskette, A.B., LL.B., B.S. in L.S., Acting Librarian and Instructor in Legal Bibliography
Margaret Dorothy Salmon, B.S. in Com., LL.B., Secretary

COLLEGE OF EDUCATION

William Septimus Taylor, M.A., Ph.D., Dean
Anne Lewis Wilson, B.S. in Com., Secretary
Susan Aylette Clay, A.B. in Ed., Assistant Secretary

Cassie Pace Bobbitt, Secretary, Bureau of School Service
Edna Kirk Bosse, A.B. in Ed., Secretary, Philosophy of Education
Virginia Cord, Secretary, Elementary Education
Sara Bolling Davis, A.B., Secretary, University School
Willa Belle Hamilton, B.S. in Com., Secretary, Home Economics Education
Katherine Hammack Kemper, A.B., Secretary, Placement Bureau
Ruthe Evelyn Maxedon, A.B., Assistant Secretary, Bureau of School Service
Willie Prater Mills, A.B., Secretary, History of Education
Hazel Nollau, M.A., Assistant Secretary, University School
Mary Lou Reese, A.B. in Ed., Secretary, Industrial Education and Distributive Occupations
Marie Dickerson Stephenson, Secretary, Agricultural Education
Billy Whitlow, A.B., Secretary, Educational Psychology

COLLEGE OF COMMERCE

Edward Wiest, M.A., Ph.D., Dean
Jane Earle Middelton, A.B., Secretary

Evelyn McAllister, B.S. in Com., Secretary, Bureau of Business Research

THE GRADUATE SCHOOL

William Delbert Funkhouser, M.A., Ph.D., D.Sc., Dean
Queenie Morrow Grable, M.A., Secretary

THE SUMMER SESSION

Jesse Earl Adams, M.A., Ph.D., Director
Billy Whitlow, A.B., Secretary of the Summer Session
Edna Kirk Bosse, A.B. in Ed., Secretary to the Director

DEPARTMENT OF UNIVERSITY EXTENSION

Louis Clifton, M.A., Director
W. Gayle Starnes, M.A., Assistant Director
Chloe Gifford, A.B., LL.B., Secretary, Bureau of Club and Community Service
Maude Ward Lafferty, Secretary, Woman's Club Service, Emeritus
Mildred Lewis, B.S. in Mus., Instructor in Music
Effie Cox Starnes, M.A., Instructor
Bethel Chase Lipps, Secretary
Beatrice Jacobs, Secretary
Eva Frances Downing, A.B., Secretary
Mary Rees Land, A.B., Secretary
Sarah E. Ratcliff, Secretary

OFFICE OF THE DEAN OF MEN

Theodore Tolman Jones, M.A., Ph.D., Dean of Men
Susan Jean Abel, A.B., Secretary

OFFICE OF THE DEAN OF WOMEN

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

OFFICE OF THE COMPTROLLER

Frank D. Peterson, A.B., University Comptroller†
David Howard Peak, LL.B., M.A., Business Agent**
Linn Hemingway McCain, Accountant
Minnie Pherigo, Order Clerk
Ruth Earnest, Voucher Clerk
Emma Grace Merrell, Ledger Clerk
Margaret Lewis, Cashier
Virginia Baxter Earnest, Clerk
Frances Brack, Clerk
Nelson B. Turner, Clerk

* Resigned, June, 1941.
† Beginning July 1, 1941.
** Emeritus July 1, 1941.

OFFICE OF THE REGISTRAR

Leo M. Chamberlain, M.A., Ph.D., Registrar
Maple Moores, Assistant Registrar
Dorothy Linville, A.B., in charge of Admissions
Jessie Wilson, M.A., in charge of Recording
Bessie O. Cleveland, Transcript Clerk
Ruth Trumbo, Clerk and Stenographer
Sarah Utterback, M.A., Statistical Clerk
Lucille Hope Newton, A.B., Recording Clerk
Mary Austin Wallace, B.S. in Com., Clerk and Stenographer
Evelyn Merrell, A.B., Clerk

OFFICE OF THE SUPERINTENDENT OF BUILDINGS AND GROUNDS

Maury Julian Crutcher, B.M.E., Superintendent*
Thomas David Boyd, B.S., Acting Superintendent†
Laura Shade, Secretary
Claude Dickerson, Steamfitting and Plumbing Foreman
G. C. Jones, Carpenter Foreman
L. D. Kitchen, Electrician
John Heckler, Supervisor of Janitors
Julius Rominger, Gardener and Labor Foreman
H. O. Bradshaw, Mechanic

LIBRARIES

Margaret Isadora King, A.B., B.S., University Librarian
Bessie M. Boughton, A.B., B.S. in L.S., First Assistant Cataloger
Jacqueline Page Bull, A.B., Assistant Reference Librarian
Norma Beatrice Cass, M.A. in L.S., Reference Librarian
Daisy T. Croft, A.B., B.S., Head of Circulation Department
Margaret Durham, B.S., Secretary
Maona Shinkle Eaves, A.B., Assistant Cataloger
Helen Elizabeth Fry, A.B., B.S., Assistant, Circulation Department
Mary Elizabeth Hanson, A.B., B.S. in L.S., Periodical Librarian
Margery P. Hornsby, B.L.E., A.B., Head, Order Department
Catherine Lynn Katterjohn, A.B., B.S. in L.S., Assistant Cataloger
Helen Virginia Michaelis, A.B., B.L.S., Assistant to Departmental Librarian
Carolyn Reading, A.B., B.S., Gift and Exchange Assistant
Ellen Butler Stutsman, A.B., Head Cataloger
Mary Ada Sullivan, B.S. in Com., Assistant Order Department
Artie Lee Taylor, Librarian in charge Reserved Book Room
Margaret Helmsing Tuttle, A.B., B.S. in L.S., Librarian in charge of Department Libraries

---

* Died October 5, 1940.
† October 5, 1940.

Ewing Cannon Baskett, A.B., LL.B., B.S., Law Librarian
Grace L. Snodgrass, A.B., Librarian, Experiment Station
Lucy Gragg Wood, A.B., B.S., Librarian, Training School Library

UNIVERSITY DISPENSARY

John Sharpe Chambers, M.S., M.D., Director
Charles D. Cawood, M.D., C.P.H., Assistant Professor of Hygiene and Public Health
George Fergison Doyle, A.B., M.D., F.A.C.S., Physician
*Robert J. Griffin, A.B., M.D., Associate Professor of Hygiene and Public Health
F. Carlton Thomas, A.B., M.D., Physician
W. Brooks Hamilton, M.S., Ph.D., Bacteriologist; Associate Professor of Hygiene and Public Health
Wilbur A. Heinz, M.S., Associate Professor of Hygiene and Public Health
Doris Settle, Registered Nurse
Rita Cates, Registered Nurse
Anna Murl Fisher, Registered Nurse
Margaret Zoeller, Registered Nurse
Katherine W. Owens, Secretary

STENOGRAPHIC BUREAU

Mary Johnston, Head
Mabel Thacker Allen, Stenographer
Jessie Lee Darnall, Stenographer
William Cox, Mimeograph Operator

CAMPUS BOOK STORE

James E. Morris, A.B., Manager
Lloyd Q. Mautz, A.B., Assistant Manager
Bess Dudley Mayes, Secretary
Elizabeth Moores, Clerk

POST OFFICE

Carrie Bean, Postmaster
Eloise Gray Webb, Assistant Postmaster
Adrain Bradshaw, Clerk
Russell Cecil, Carrier

UNIVERSITY Y.M.C.A.

Bart Nixon Peak, A.B., LL.B., Secretary
Martha Huber, Assistant

UNIVERSITY Y.W.C.A.

**Doris Seward, A.B., Secretary

** Resigned June 30, 1941.

RESIDENCE HALL

Mary Margaret Lester, M.A., Director of Residence Halls for Women
Alberta Limbach, B.S., Manager of Residence Halls for Women
Adelle S. Gensemer, A.B., Head Resident of Patterson Hall
Kathleen Shedd, A.B., Head Resident of Boyd Hall
Jennie B. Clay, Postmaster of Residence Halls for Women
Sarah McCormack, A.B., Secretary-Bookkeeper, Residence Halls for Women
Margaret Chenault Crutcher, Director of Men's Residence Halls
Ella Elizabeth Johnston, A.B., House Director of Shelby House
Lucy Berry, House Director of McDowell House

ALUMNI ASSOCIATION

G. Lee McClain, A.B., Secretary*
Robert K. Salyers, A.B., Secretary†
Ethel Smoot Rix, A.B. in Ed., Assistant Secretary

PUBLICITY BUREAU

Elmer G. Sulzer, A.B., Director
Helen Galvin King, A.B., Assistant
Lolo L. Robinson, A.B., Program Supervisor, Radio Studios

BUREAU OF SOURCE MATERIALS IN HIGHER EDUCATION

Ezra L Gillis, A.B., Director
Mary Hester Cooper, M.A., Assistant

KENTUCKY KERNEL

James S. Shropshire, B.S. in Agr., Director of Student Publications
Mary Louise Naive, B.S. in Com., Secretary

STUDENT UNION BUILDING

Bart Nixon Peak, A.B., LL.B., Director‡
James S. Shropshire, B.S. in Agriculture, Director**
James Rondal Sharp, B.S. in Com., Assistant to the Director
Rebecca Van Meter, A.B., Hostess

PERSONNEL OFFICE

Martin Marshall White, M.A., Ph.D., Executive Secretary††
Lysle Warrick Croft, M.A., Ph.D., Executive Secretary‡‡
Elizabeth Doyle, A.B., Secretary

---

* Beginning January 1, 1941.
† Resigned January 1, 1941.
‡ Beginning April 1, 1941.
** On leave April, May, and June.
†† Beginning April 1, 1941.
‡‡ Transferred to Military Department 1940-41.

PART IV

STATISTICAL SUMMARY

UNIVERSITY ENROLMENT BY SEX AND BY COLLEGES AND CLASSES FOR THE YEAR ENDING JUNE 30, 1941 INCLUDING BOTH SUMMER TERMS OF 1940

(All Duplicates Excluded)

CLASSIFICATION	Arts and Sciences		Agriculture		Engineering		Law		Education		Commerce		Graduate		Totals		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	925	706	925	706	1631
Seniors	156	114	139	93	87	.....	48	1	61	187	101	30	.....	.....	592	425	1017
Juniors	211	157	107	66	94	1	40	2	44	123	101	30	.....	.....	597	379	976
Sophomores	238	184	85	62	133	.....	47	3	.....	.....	107	25	.....	.....	610	274	884
Freshmen	312	197	134	53	143	.....	.....	.....	.....	.....	113	38	.....	.....	702	288	990
Specials	30	78	7	7	3	.....	1	.....	68	144	3	4	.....	.....	112	233	345
Auditors	107	35	1	6	.....	.....	.....	.....	7	6	1	.....	7	4	123	51	174
Transients	37	112	4	3	2	.....	6	.....	8	48	2	3	.....	.....	59	166	225
Totals	1091	877	477	290	462	1	142	6	188	508	428	130	932	710	3720	2522	6242

UNIVERSITY ENROLMENT FOR THE FIRST AND SECOND SEMESTERS OF 1940-41 BY SEX AND BY COLLEGES AND CLASSES

(All Duplicates Excluded)

CLASSIFICATION	Arts and Sciences		Agri-culture		Engi-neering		Law		Educa-tion		Commerce		Graduate		Totals		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	297	206	297	206	503
Seniors	134	105	121	77	79	.....	32	.....	40	84	86	23	.....	.....	492	289	781
Juniors	198	134	105	65	90	1	37	2	34	66	97	28	.....	.....	561	296	857
Sophomores	232	176	84	61	132	.....	41	2	.....	.....	107	24	.....	.....	596	263	859
Freshmen	307	192	132	52	143	.....	.....	.....	.....	.....	113	38	.....	.....	695	282	977
Specials	7	10	.....	1	3	.....	1	.....	.....	1	2	3	.....	.....	13	15	28
Auditors	3	25	1	5	.....	.....	.....	.....	.....	.....	1	.....	2	1	7	31	38
Transients	1	79	.....	.....	.....	.....	.....	.....	1	2	.....	2	.....	.....	2	83	85
Totals	882	721	443	261	447	1	111	4	75	153	406	118	299	207	2663	1465	4128

UNIVERSITY ENROLMENT FOR THE FIRST SEMESTER OF 1940-41 BY SEX AND BY COLLEGES AND CLASSES

CLASSIFICATION	Arts and Sciences		Agriculture		Engineering		Law		Education		Commerce		Graduate		Totals		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	238	149	238	149	387
Seniors	127	99	83	58	61	.....	28	.....	31	57	74	23	.....	.....	404	237	641
Juniors	153	120	101	61	90	1	32	1	22	51	102	26	.....	.....	500	260	760
Sophomores	221	165	94	68	121	.....	43	3	.....	.....	101	23	.....	.....	580	259	839
Freshmen	319	185	131	58	165	.....	.....	.....	.....	.....	115	36	.....	.....	730	279	1009
Specials	8	8	.....	1	1	.....	1	.....	.....	1	2	2	.....	.....	12	12	24
Auditors	3	19	.....	4	.....	.....	.....	.....	.....	.....	1	.....	1	1	5	24	29
Transients	1	55	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	1	57	58
Totals	832	651	409	250	438	1	104	4	53	109	395	112	239	150	2470	1277	3747

UNIVERSITY ENROLMENT FOR THE SECOND SEMESTER OF 1940-41
BY SEX AND BY COLLEGES AND CLASSES

CLASSIFICATION	Arts and Sciences		Agri-culture		Engi-neering		Law		Educa-tion		Commerce		Graduate		Totals		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	213	131	213	131	344
Seniors	112	96	99	71	67	.....	22	.....	36	80	78	21	.....	.....	414	268	682
Juniors	180	122	99	62	86	1	31	2	32	64	87	23	.....	.....	515	274	789
Sophomores	201	155	73	55	116	.....	35	2	.....	.....	95	22	.....	.....	520	234	754
Freshmen	256	176	119	48	122	.....	.....	.....	.....	.....	90	33	.....	.....	587	257	844
Specials	1	7	.....	.....	2	.....	1	.....	.....	1	1	1	.....	.....	5	9	14
Auditors	1	12	2	4	.....	.....	.....	.....	.....	.....	.....	.....	2	2	5	18	23
Transients	.....	55	.....	.....	.....	.....	.....	.....	1	2	.....	1	.....	.....	1	58	59
Totals	751	623	392	240	393	1	89	4	69	147	351	101	215	133	2260	1249	3509

UNIVERSITY ENROLMENT FOR BOTH SUMMER TERMS OF 1940 BY SEX AND BY COLLEGES AND CLASSES

(All Duplicates Excluded)

CLASSIFICATION	Arts and Sciences		Agriculture		Engineering		Law		Education		Commerce		Graduate		Totals		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	723	543	723	543	1266
Seniors	62	29	45	43	9	.....	25	1	28	120	29	11	.....	.....	198	204	402
Juniors	69	62	22	19	34	.....	13	.....	13	71	25	12	.....	.....	176	164	340
Sophomores	39	22	4	15	47	.....	14	1	.....	.....	11	2	.....	.....	115	40	155
Freshmen	18	12	9	5	12	.....	.....	.....	.....	.....	4	.....	.....	.....	43	17	60
Specials	28	72	7	7	.....	.....	.....	.....	68	143	1	1	.....	.....	104	223	327
Auditors	104	10	.....	1	.....	.....	.....	.....	8	6	.....	.....	5	4	117	21	138
Transients	39	49	4	5	2	.....	7	.....	7	47	3	2	.....	.....	62	103	165
Totals	359	256	91	95	104	.....	59	2	124	387	73	28	728	547	1538	1315	2853

UNIVERSITY ENROLMENT FOR THE SECOND SUMMER TERM OF 1940 BY SEX AND BY COLLEGES AND CLASSES

CLASSIFICATION	Arts and Sciences		Agriculture		Engineering		Law		Education		Commerce		Graduate		Totals		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	335	222	335	222	557
Seniors	41	22	24	17	6	.....	19	1	15	63	20	10	.....	.....	125	113	238
Juniors	42	32	16	11	19	.....	10	.....	2	37	18	3	.....	.....	107	83	190
Sophomores	27	13	1	4	19	.....	9	.....	.....	.....	4	.....	.....	.....	60	17	77
Freshmen	8	7	5	2	8	.....	.....	.....	.....	.....	2	.....	.....	.....	23	9	32
Specials	24	26	1	.....	.....	.....	.....	.....	47	139	.....	1	.....	.....	72	166	238
Auditors	48	7	.....	.....	.....	.....	.....	.....	1	1	.....	.....	1	3	50	11	61
Transients	22	28	1	1	1	.....	2	.....	1	19	2	2	.....	.....	29	50	79
Totals	212	135	48	35	53	.....	40	1	66	259	46	16	336	225	801	671	1472

UNIVERSITY ENROLMENT FOR THE FIRST SUMMER TERM OF 1940 BY SEX AND BY COLLEGES AND CLASSES

CLASSIFICATION	Arts and Sciences		Agri-culture		Engi-neering		Law		Educa-tion		Commerce		Graduate		Totals		Grand Totals
	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	M.	W.	
Graduates	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	627	442	627	442	1069
Seniors	43	19	45	38	7	.....	20	1	25	107	21	9	.....	.....	161	174	335
Juniors	64	59	14	15	26	.....	11	.....	11	57	21	11	.....	.....	147	142	289
Sophomores	30	18	7	13	43	.....	14	1	.....	.....	11	2	.....	.....	105	34	139
Freshmen	14	7	9	6	10	.....	.....	.....	.....	.....	3	.....	.....	.....	36	13	49
Specials	13	51	6	7	.....	.....	.....	.....	21	5	1	.....	.....	.....	41	63	104
Auditors	56	3	.....	1	.....	.....	.....	.....	8	5	.....	.....	5	1	69	10	79
Transients	26	32	3	4	1	.....	6	.....	6	35	3	2	.....	.....	45	73	118
Totals	246	189	84	84	87	.....	51	2	71	209	60	24	632	443	1231	951	2182

INDEX

	Page
Absences	26
Auditors	17, 24
Administrative and Instructional Personnel	307
Administrative and Secretarial Organization	328
Administrative Officers	4
Admission	14
Advanced Standing	16
Auditor	17, 24
Colleges and Schools	17
Freshman Class	14
Special Student	17
Agricultural Education	273
Agricultural Entomology	229
Agricultural Experiment Station	35
Agricultural Extension Courses	230
Agricultural Extension Division	301
Agriculture and Home Economics—College of	61
Advisory System	62
County Agents	63
Home Economics	67
Major Work	63
Organization	61
Pre-Forestry Work	66
Pre-Veterinary Work	66
Requirements for Graduation	61
Two-Year Curriculum	65
Agronomy	230
Alumni Association	33
Anatomy	129
Ancient Languages	133
Animal Industry	232
Animal Pathology	236
Anthropology	136
Applied Mechanics	25
Archaeology	136
Application for Degree	29
Architectural Engineering	248
Art	137
Design	138
Drawing	137
History and Appreciation	139
Painting	137
Public School	140
Arts and Sciences—College of	44
Admission	44
Advisers	45
Aim	44
Courses	45
Credit by Extension	49
Degrees	45
Freshman Tests	45
Group Requirements	46
Maximum and Minimum Credits Allowed	49
Organization	44
Residence Requirements	49
Astronomy	185
Auditors or Visitors	17, 24
Bachelor of Arts, Degree of	45
Bachelor of Arts in Journalism, Degree of	50
Bachelor of Science, Degree of	50
Bachelor of Science in Agriculture, Curriculum	62
Bachelor of Science in Home Economics, Curriculum	69
Bachelor of Science in Industrial Chemistry, Degree of	53
Bachelor of Science in Medical Technology, Degree of	55
Bachelor of Science in Music, Degree of	54
Bacteriology	140
Botany	144
Buildings	35
Bureau of Business Research	302
Bureau of Government Research	302
Bureau of School Service	302
Bureau of Source Materials	303
Business Education	274
Business, General Curriculum	106
Calendar, University	8
Calendar, Year	7
Chemistry	147
Child Guidance Service	303
Civil Engineering	
Curricula	74
List of Courses	248
Civil Pilot Training	60
Classification	25
Combined Courses	
Arts and Law	56
Arts and Mecdicine	56
Arts and Dentistry	56
Commerce and Law	107
Commencement Honors	29
Commerce, College of	105
Commerce Teachers	103
Introductory Statement	105
List of Courses	291
Public Service	109
Requirements for Graduation	105
Specialization in Accounting and Statistics	109
Commerce-Law Curriculum	107
Committee on Scholarship and Attendance	24
Comprehensive Examinations	46
Convocations	29
County Agricultural Agents, Curriculum	63
Courses, Statement of	125
Credit, Definition of	27
Cultural Opportunities	29
Curricula	41
Dean of Men	23
Dean of Women	23
Definition of a Credit	27
Degrees	29, 41
Department Honors	48
Dietetics and Institution Management, Curriculum	69
Distributive Occupations	275
Doctor of Philosophy, Requirements for	116
Drawing	137
Economics	151
Courses	291
Economics, Farm	236
Education	
Administration	275
Business	274
Distributive Occupations	275

	Page
Elementary	90, 279
History of	281
Home Economics	69, 282
Industrial	283
Music	285
Philosophy of	285
Psychology of	278
Secondary	287
Vocational	90, 290
Education, College of	88
Admission	89
Certificates	89
Curricula (See Teachers)	
Organization	88
Requirements for Graduation	89
Educational Administration	275
Educational Conference	304
Educational Psychology	278
Electrical Engineering	
Curriculum	77
List of Courses	254
Elementary Education	90, 279
Engineering	
Administration	258
Applied Mechanics	257
Architectural	248
Civil	248
Drawing	259
Electrical	254
Mechanical	260
Metallurgical	264
Mining	267
Sanitary	252
Student Assemblies	260
Engineering, College of	72
Admission	72
Courses of Study	72
Degrees	72
Graduate Courses	72
Options	72
Requirements for Graduation	72
Engineering—Farm	239
Engineering—General	257
English	25, 152
Entomology—Agricultural	229
Entrance Requirements	15
Examinations for Credit	25
Examinations, Comprehensive	48
Expenses, Estimated	21
Extension—Agricultural	230
Extension Work—Rules Governing	25
Extra Work	24
Facilities of the University	35
Farm Economics	236
Farm Engineering	239
Fellowships and Scholarships	120
Forestry	241
French	218
Fees	18
Applied Music	20
Auditor	17
Graduation	18
Late Registration	20
Refund of	20
Regular	19
Special Examination	20
Financial Help—Opportunities	23
Foreign Languages—Credit for and Classification	48
Geography	160
Geology	160
German	165
Graduate School	111
Admission	111
Degrees	111
Fees	112
Fellowships and Scholarships	120
Graduate Club	121
Registration	112
Requirements for Degrees	112
Graduation—Requirements for	28
Greek	135
Health	173
Health Service	23
History	167
History of Education	281
Home Economics	67, 243
Home Economics Education	
Curriculum	69
List of Courses	282
Honors	
Commencement	29
Department	48
Horticulture	
Curriculum	64
List of Courses	240
Hygiene	173
Independent Work	48
Index of Departments	127
Industrial Administration	
Curriculum	106
Industrial Chemistry	53, 135
Industrial Education	283
Inferior Work in English	25
Instructional Staff	307
Italian	221
Journalism	175
Law—College of	83
Admission	85
Building	85
Combined Courses	85
Enrollment	84
Faculty	84
Haggin Endowment	84
Kentucky Law Journal	83, 304
Library	85
List of Courses	270
Order of the Coif	83
Summer Session	86
Latin	133
Library Science	
Curriculum	60
List of Courses	179
Living Conditions	21
Living Expenses	21
Lower Division, Arts and Sciences	46
Markets	241
Marketing System	26
Marks, Recording of	27
Master of Arts, Requirements for	112
Master of Arts in Education, Requirements for	114
Master of Science, Requirements for	112
Master of Science in Agriculture, Requirements for	114
Master of Science in Education, Requirements for	114
Master of Science in Home Economics, Requirements for	114
Master of Science in Public Health, Requirements for	114
Mathematics	182
Mechanical Engineering	
Curriculum	73
List of Courses	260
Medical Technology	
Curriculum	55
Courses (See Bacteriology)	

	Page
Metallurgical Engineering Curriculum	79
List of Courses	264
Military Science	186
Minimum Program	24
Mining Engineering Curriculum	81
List of Courses	267
Music	189
Musicales	30
Music Education	285
Nurses, Courses for	59
Opportunities for Financial Help	23
Ornamental Horticulture	64
Painting	137
Pathology—Animal	236
Personnel Bureau	303
Personnel Service	23
Philosophy	194
Philosophy of Education	285
Physical Education	196
Physics	202
Physiology	129
Political Science	206
Pre-Dental Course	58
Pre-Law Courses	59
Pre-Medical Courses	57
Preparation of Teachers—Arts and Sciences	59
Preparation for Work in Geology	59
Prizes and Awards	27
Probation	24
Psychology	212
Publications	6
Public Service Courses	60, 211
Public Service Institutes	305
Public Speaking	159
Publicity Bureau	304
Refund of Fees	20
Registration Schedule	9
Religious Life	31
Repeated Failures	25
Residence	49
Residence Halls	21
Romance Languages	217
R. O. T. C.	186
Rules Affecting Students	24
Rural Finance	241
Sanitary Engineering	252
Scholarship and Attendance, Committee on	24
School Contests	305
Secondary Education	287
Secretarial Training Curriculum	108
Self Help	23
Social Work Curriculum	59
List of Courses	221
Sociology	224
Sources of Information	6
Spanish	220
Special Services	299
Statistical Summary	335
Student Activities	32
Publications	32
Organizations	32
Student Assemblies	
Agriculture	229
Engineering	260
Summer Session	122
Teacher Placement Bureau	304
Teachers, Curricula for	
Biological Sciences	94
Chemistry	94
Commerce	95
Elementary	90
English	93
French	93
High School	92
History and Political Science	94
Home Economics	97, 103
Latin	93
Librarians	99
Mathematics	94
Music	103
Physical Education	95, 104
Physics	94
Superintendents, Supervisors, etc.	101
Vocational Agriculture	64, 98, 103
Critic Teachers	102
Textiles and Clothing Curriculum	70
Tutorial Work	48
University Extension	
Regulations Governing	25
Department of	123
University of Kentucky, Location, Accreditation, Organization and History of	13
Unsatisfactory Scholarship and Attendance	25
Upper Division, Arts and Sciences	46
Visitors	17, 24
Vocational Agriculture Curriculum for Teachers	63
Vocational Education	90, 290
War Orphans	20
Zoology	226