Bulletin of the

UNIVERSITY OF KENTUCKY

GENERAL CATALOG

1944-45

Announcements

1945-46

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Vol. 37 MAY No. 5

BOARD OF TRUSTEES

1945

Ex Officio Members

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John Fred Williams, Superintendent of Public Instruction
Elliott Robertson, Commissioner of Agriculture

From the State Board of Agriculture

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Harry W. Walter, Shelbyville, 1946
H. S. Cleveland, Franklinton, 1944

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John C. Everett, Maysville, 1950
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R. P. Hobson, Louisville, 1948
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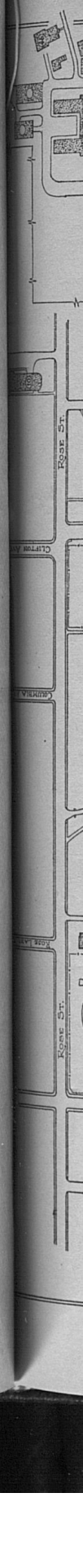
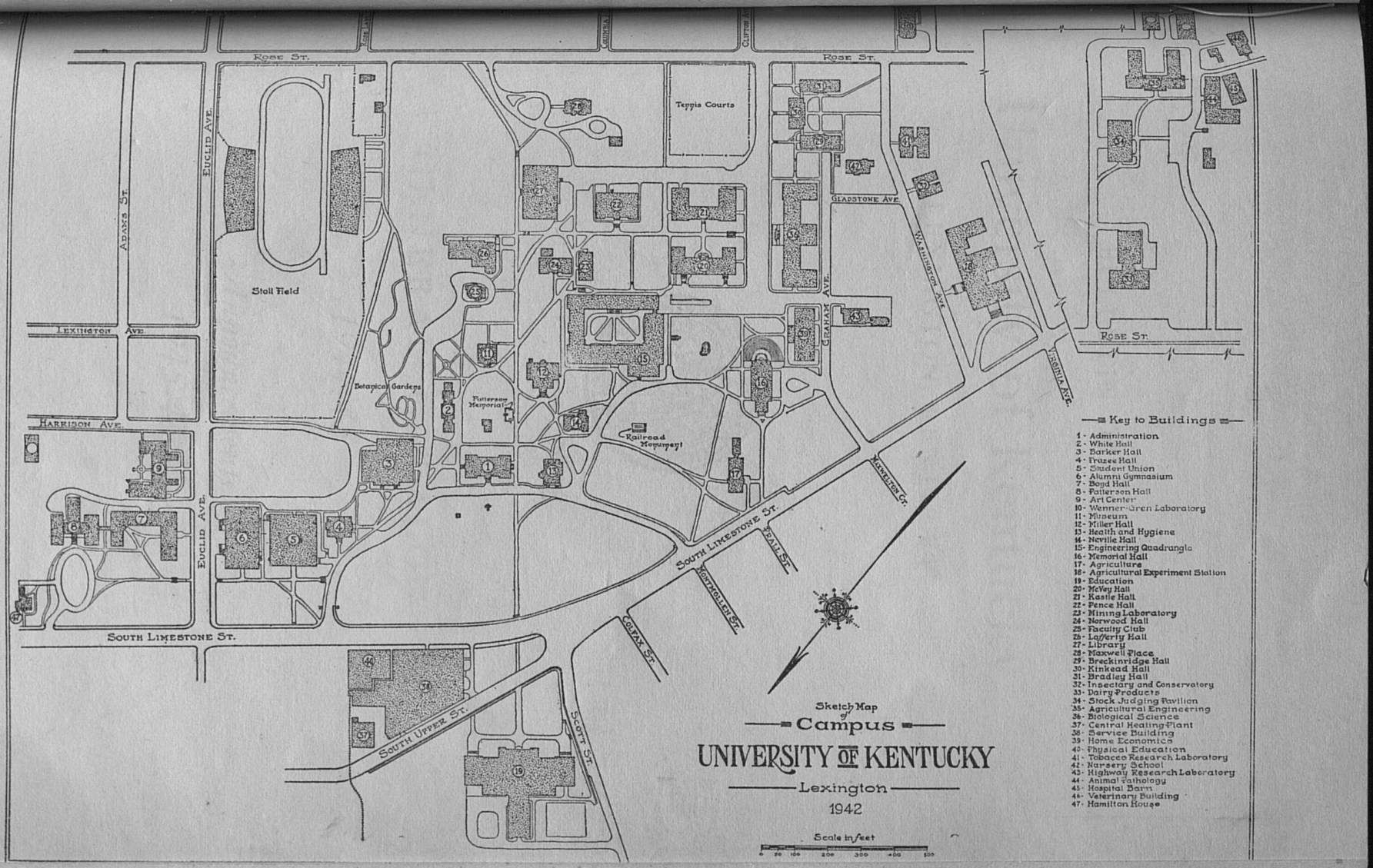
Frank D. Peterson, Secretary and Treasurer

Executive Committee

Richard C. Stoll, Chairman
H. S. Cleveland
John C. Everett
R. P. Hobson
H. D. Palmore




Rose St.
Rose St.
Rose St.
Euclid Ave.
Adams St.
Lexington Ave.
Harrison Ave.
Euclid Ave.
South Limestone St.
South Upper St.
Scott St.
Tennis Courts
Stoll Field
Botanical Gardens
Patterson Memorial
Railroad Monument
Gladstone Ave.
Graham Ave.
Washington Ave.
Virginia Ave.
Maxwelton Ct.
Frall St.
Montmollen St.
Colfax St.
South Limestone St.
Key to Buildings
1 - Administration
2 - White Hall
3 - Barker Hall
4 - Frazee Hall
5 - Student Union
6 - Alumni Gymnasium
7 - Boyd Hall
8 - Patterson Hall
9 - Art Center
10 - Wenner-Gren Laboratory
11 - Museum
12 - Miller Hall
13 - Health and Hygiene
14 - Neville Hall
15 - Engineering Quadrangle
16 - Memorial Hall
17 - Agriculture
18 - Agricultural Experiment Station
19 - Education
20 - McVey Hall
21 - Kastle Hall
22 - Pence Hall
23 - Mining Laboratory
24 - Norwood Hall
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
34 - Stock Judging Pavilion
35 - Agricultural Engineering
36 - Biological Science
37 - Central Heating Plant
38 - Service Building
39 - Home Economics
40 - Physical Education
41 - Tobacco Research Laboratory
42 - Nursery School
43 - Highway Research Laboratory
44 - Animal Pathology
45 - Hospital Barn
46 - Veterinary Building
47 - Hamilton House
Sketch Map of Campus
UNIVERSITY OF KENTUCKY
Lexington
1942
Scale in feet
0 50 100 200 300 400 500

BULLETIN OF THE

University of Kentucky

LEXINGTON, KENTUCKY

GENERAL CATALOG

1944-45

Announcements

1945-46

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Sarah Bennett Holmes, M. A., Dean of Women

Frank D. Peterson, A. B., University Comptroller

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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

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 Quarter Bulletin	Registrar's Office
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 and Home Economics Bulletin	College of Agriculture and Home Economics or Registrar's Office
The University and the Veteran	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 29, 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 Quarter	Registrar
Class extension and correspondence study	Director of University Extension
Agricultural extension	Director of Agricultural Extension
Information for Veterans	Registrar

CALENDAR

1945

July

S	M	T	W	T	F	S
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1946

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August

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September

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October

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November

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17	18	19	20	21	22	23
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December

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22	23	24	25	26	27	28
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UNIVERSITY CALENDAR

1945-46

Fall Quarter

1945	
September 18	Tuesday—Meeting of the Board of Trustees.
September 28	Friday, 8:00 a. m. to Monday noon—Classification tests, physical examinations, and advisory conferences for all new students.
October 1	Monday Afternoon—Freshman registration and classification.
October 2	Tuesday Forenoon—Freshman classification continued.
October 2	Tuesday—Registration and classification of upper classmen. (See alphabetical schedule, p. 8.)
October 3	Wednesday—Class work begins.
October 10	Wednesday—Last date on which one may enter an organized class.
October 22	Monday—Last date on which one may drop a course without a grade.
October 22, 23	Monday, Tuesday—Period for filing applications for degrees.
November 22	Thursday—Thanksgiving holiday.
December 19-21	Wednesday through Friday—Examinations for Fall Quarter.
December 21	Friday, 6 p. m.—Quarter ends.

Winter Quarter

1946	
January 2	Wednesday, 8:00 a. m.—Classification tests, physical examinations, and advisory conferences for all new students.
January 3	Thursday—Registration and classification of all students. (See alphabetical schedule, p. 8.)
January 4	Friday—Class work begins.
January 9	Wednesday—Last date on which one may enter an organized class.
January 28	Monday—Last date on which one may drop a course without a grade.
January 21	Monday—Period for filing applications for degrees.
March 18-20	Monday through Wednesday—Examinations for Winter Quarter.
March 20	Wednesday, 6 p. m.—Quarter ends.

Spring Quarter

March 25	Monday, 8:00 a. m.—Classification tests, physical examinations, and advisory conferences for all new students.
March 26	Tuesday—Registration and classification for all students. (See alphabetical schedule, p. 9.)
March 27	Wednesday—Class work begins.
April 2	Tuesday—Meeting of the Board of Trustees.
April 3	Wednesday—Last date on which one may enter an organized class.
April 15	Monday—Last date on which one may drop a course without a grade.
April 15	Monday—Period for filing applications for degrees.
June 1	Sunday—Baccalaureate Services.
June 6-8	Thursday through Saturday—Final examinations for the Spring Quarter.
June 7	Friday—Seventy-Ninth Annual Commencement.
June 8	Saturday, 6 p. m.—Quarter ends.
June 10-15	Monday through Saturday—4-H Club Week.

Summer Quarter

June 17	Monday—Registration for First Term.
June 18	Tuesday—Class work begins.
June 24	Monday—Last date on which one may enter an organized class.
June 28	Friday—Last date on which one may drop a course without a grade.
June 28	Friday—Period for filing applications for degrees.
July 4	Thursday—Independence Day Holiday.
July 20	Saturday, 6 p. m.—First Term ends.
July 22	Monday—Registration for Second Term.
July 23	Tuesday—Class work begins
July 25	Thursday—Last date on which one may enter an organized class.
July 25	Thursday—Last date for filing applications for degrees.
August 1	Thursday—Last date on which one may drop a course without a grade.
August 23	Friday—Summer Quarter Commencement.
August 24	Saturday, 6 p. m.—Quarter ends.

REGISTRATION SCHEDULES FOR 1945-46

Fall Quarter

September, 1945

September 28-October 1—Friday, 8:00 a. m. to Monday noon—All freshmen and all other new students will report in Memorial Hall for classification tests, physical examinations, and advisory conferences. All new students, with the exception of those enrolling in the Graduate School, must complete the tests and examinations before they will be permitted to register. Students who report for the tests later than 8:00 a. m. Friday may not be able to complete them before the registration period, and their registration will thus be delayed.

October 1, Monday afternoon—Freshman registration and classification

October 2, Tuesday forenoon—Freshman classification continued

October 2, Tuesday—Registration and classification of all upper classmen according to the following alphabetical schedule:

Tuesday forenoon	Tuesday afternoon
8:00 to 8:50—A through B	1:30 to 2:20—O through S
9:00 to 9:50—C through F	2:30 to 3:20—T through Z
10:00 to 10:50—G through K	3:30 to 4:30—Miscellaneous
11:00 to 11:50—L through N	A through Z

October 3, Wednesday—Class work begins

Winter Quarter

January, 1946

January 2, Wednesday—8:00 a. m. Classification tests, physical examinations, and advisory conferences for new students. All freshmen and all other 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.

January 3, Thursday—Registration and classification of all students according to the following alphabetical schedule:

Thursday forenoon	Thursday afternoon
8:00 to 8:50—L through N	1:30 to 2:20—C through F
9:00 to 9:50—O through S	2:30 to 3:20—G through K
10:00 to 10:50—T through Z	3:30 to 4:30—Miscellaneous
11:00 to 11:50—A through B	A through Z

January 4 Friday—Class work begins

Spring Quarter

March, 1946

March 25, Monday—8:00 a. m. Classification tests, physical examinations, and advisory conferences for new students. All freshmen and all other 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.

March 26, Tuesday—Registration and classification of all students according to the following alphabetical schedule:

Tuesday forenoon	Tuesday afternoon
8:00 to 8:50—T through Z	1:30 to 2:20—C through F
9:00 to 9:50—O through S	2:30 to 3:20—A through B
10:00 to 10:50—L through N	3:30 to 4:30—Miscellaneous
11:00 to 11:50—G through K	A through Z

March 27, Wednesday—Class work begins

PART I

GENERAL INFORMATION OF SPECIAL INTEREST TO THE PROSPECTIVE STUDENT

THE UNIVERSITY OF KENTUCKY AND THE WAR

The University of Kentucky, like all colleges in the country, is doing its utmost to aid the nation to win the war. To military service and related work have gone many thousands of its former students and more than a hundred and forty members of the instructional and research staff. Curricular adjustments have been made with a view to lending the most immediate and direct aid to the war effort and many special research projects have been established. Since May, 1943, the University has operated a unit of the Army Specialized Training Program, involving at times as many as 1200 soldier trainees.

In March, 1944 the University's quota in the Army Specialized Training Program was reduced to 220, in conformity with the general limitations placed on this program by the War Department, and in Feburary, 1945, the number of trainees was approximately 310. The future of the University's participation in soldier training cannot be foretold. It should be emphasized, however, that the army training programs of the past have been operated without detriment to the regular schedule of classes and the future will see no change in this general policy.

A complete program of studies will be operated for women and for men not in service, utilizing the regular instructional staff. Rooming and boarding facilities will be adequate and as carefully supervised as usual. It is the purpose of the University to maintain its program of liberal education and its professional schools at the same high level on which they have been operated in the past, while at the same time meeting in every way possible the immediate demands of the nation for trained military personnel.

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 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 American Library Association, 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 and Home Economics, 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 four quarters of approximately twelve weeks each, the summer quarter being divided into two terms.

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 and Home Economics, 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 Teachers

Placement Bureau, the Department of University Extension, and the Department of Public Relations.

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.

Applications for admission to the University should be made to the Registrar on forms furnished by the Registrar's Offiice. 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. Prior to the assignment of any new undergraduate student to University classes, the student must take the University classification tests.**

Admission to the Freshmen Class

Applicants who are graduates of accredited high schools will be admitted to the University on certificate, provided they have at least fifteen units of acceptable high school work. A unit represents the study of any subject for a school year of at least thirty-two weeks, with five recitation periods a week, each of at least forty-five minutes in length, or the equivalent thereof. Double

periods are required in shop, drawing, typewriting, and all other courses requiring no out-of-class preparation. One unit is the minimum credit accepted in any foreign language, and one-half unit the minimum in any other subject.

While the University does not prescribe a pattern of work for admission, it is strongly recommended that at least ten of the units presented be chosen from the English studies, the social studies, mathematics, the foreign languages, and the laboratory sciences, and that within these ten units the student offer at least three units in English, one and one-half in algebra, and one in plane geometry. Should a student lack these courses as prerequisites for any of his college work, he will be required to take them in college without credit, thus delaying his graduation.

Applicants who have graduated from unaccredited high schools and those not graduated from high school may be admitted as freshmen if, in addition to presenting the fifteen acceptable units, they successfully pass the University classification examinations.

Admission to the University does not necessarily qualify a student for admission to a particular college. In every case the student must meet the admission requirements of the college in which he is to enroll.

Admission to Advanced Standing

Resident Students. A resident of Kentucky who applies for admission with advanced standing is expected to present evidence that he is in good standing in every respect in the institution last attended and in general is required to have maintained a standing of 1.0 in all previous college work. Where all circumstances seem to warrant, the student may be admitted on probation when his standing is below 1.0. In no case, however, shall a student be admitted whose record is such that he would have been dropped at the University of Kentucky.

The University does not disregard at any time or under any conditions college or university records in order to admit applicants solely on the basis of their high school records.

A transfer student is allowed only as many advanced credits as he can present quality points. Otherwise, work done at a fully accredited college or university is recognized credit for credit.

In order to be classified as fully accredited, a college must be a member of a regional accrediting association or it must be on the approved list of the state university of the state in which it is located. Advanced standing from an unaccredited college may be obtained at the University only by special subject examinations.

Non-Resident Students. A non-resident who applies for admission with advanced standing must in all cases have maintained

a standing of 1.0 in all previous college work. In other respects, the requirements and conditions of transfer are the same as for resident students.

Written applications for admission with advanced standing should be submitted to the Registrar's Office on forms furnished by that office.

Admission as a Special Student

A graduate of another university or college may enter the University as a special student. Other persons may be admitted as special students provided they are fully prepared to do the work desired and provided they are at least twenty-one years of age.*

Before a special student can become a candidate for a degree he must have his status changed to that of a regular student. This may be done in one of two ways:

1. Satisfying the requirements for admission to the freshman class.
2. Completing in residence one hundred quarter hours of credit with a standing of at least 1.5 in all work attempted.

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. 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.

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 and Home Economics. 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 rated in the upper three-fourths on the University placement tests.

In addition to meeting the general requirements for admission to the University, the high school credits presented by the appli-

* An exception to the age requirement may be made in the case of a veteran of World War II who has demonstrated, through tests and personal interviews, his ability to do the work desired.

cant shall include one unit in Plane Geometry, one-half unit in Solid Geometry, and one and one-half units in Algebra. If the student lacks only the half unit in Solid Geometry, he may be admitted, but this subject will be added to the requirements of the freshman year.

College of Law. An applicant for admission to the College of Law must offer ninety quarter hours completed in residence in colleges other than Law, nine of which must be in English and not more than nine of which may be in physical education, military science, or other "non-theory" courses. 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.

College of Education. Admission to the freshman class of the College of Education is limited to students rated in the upper three-fourths 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 freshman applicant must meet the general admission requirements of the University.

College of Commerce. Admission to the freshman class of the College of Commerce is limited to students rated in the upper three-fourths on the University placement tests. The freshman applicant must meet the general admission requirements of the University.

The Graduate School. A student may be admitted to the Graduate School upon evidence of having completed the requirements for graduation from a fully accredited institution of higher learning and an official transcript of undergraduate courses, together with a written application. These should be sent to the Registrar's Office. The application form may be obtained from that office. 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 table on page 19 gives the schedule of regular fees per quarter and term. 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. For the fees indicated the full-time student receives: class instruction, health and infirmary service, admission to athletic contests and to convocations, use of the Library and Student Union building, a discount on admissions to the Guignol Theatre, and a subscription to "The Kentucky Kernel," the student newspaper. The University reserves the right to change the amount of any fee at any time.**

Fees for Graduation and Special Privileges

Graduation Fee. Candidates for the bachelor's degree will be charged a graduation fee of $9.00. This will cover the rental of cap and gown, the cost of **The Kentuckian,** diploma fee, and other necessary expenses. Candidates for advanced degrees will be charged a fee of $15.00, which will include the above, with the exception of **The Kentuckian,** 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 registration periods 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:

$30.00 per quarter for each student for a three quarter hour course in applied music.

$24.00 per quarter for organ practice for two hours daily.

$4.00 per quarter for each student for rental of a University practice room for two hours daily.

$2.50 per quarter for Music 7, 8, and 9.

Deposit for Military Uniform

Each student taking basic military science makes a deposit of $10.00. This deposit is returned after the uniform and all equipment have been checked in at the close of the school year.

SCHEDULE OF FEES PER QUARTER (Fall, Winter, Spring)

Classification	Resident Students				Non-Resident Students			
	General Deposit	Registration and Incidental Fee	Health Service Fee	Total	General Deposit	Registration and Incidental Fee	Health Service Fee	Total
Full-Time Students:								
All Colleges except Law	$6.00*	$35.00	$2.50	$43.50	$6.00*	$55.00	$2.50	$63.50
College of Law	6.00*	38.00	2.50	46.50	6.00*	58.00	2.50	66.50
Part-Time Students:		Per Quarter Hour				Per Quarter Hour		
All Undergraduate Colleges except Law	6.00*	$3.00	2.50†		6.00*	4.75	2.50†	
College of Law	6.00*	4.50	2.50†		6.00*	6.50	2.50†	
Graduate School	6.00*	4.00	2.50†		6.00*	6.25	2.50†	
Auditors:								
In lecture and recitation courses		2.00				2.00		
In studio and laboratory courses		4.00				4.00		

* Made only once each school year; applicable to four quarters; not charged a student taking fewer than nine quarter hours. This deposit is refunded less any charges that may have been made against it.
† Not charged an auditor or a student taking fewer than nine quarter hours.

SCHEDULE OF FEES FOR ONE TERM OF SUMMER QUARTER

Classification	Resident Students			Non-Resident Students		
	Registration and Incidental Fee	Health Service Fee	Total	Registration and Incidental Fee	Health Service Fee	Total
Full-Time Students:						
All Colleges except Law	$23.00	$1.25*	$24.25	$28.00	$1.25*	$29.25
College of Law	25.00	1.25*	26.25	30.00	1.25*	31.25
Part-Time Students:†	Per Quarter Hour			Per Quarter Hour		
All Colleges except Law	$3.50	1.25*		$4.50	1.25*	
College of Law	4.00	1.25*		5.00	1.25*	

* Not charged a student taking fewer than six quarter hours.
† The full-time fee is paid in all cases when the student load equals or exceeds six quarter hours. Auditors in the summer quarter are charged the same fee that they would pay for credit.

Fees for Correspondence and Extension Courses

The fee for correspondence courses is $3.00 per quarter hour and for extension classes, $4.00 per quarter hour.

Members of the armed forces who register in correspondence courses through the Armed Forces Institute will have half of their fees and the cost of textbooks paid by the Federal Government.

Definition of Residence for Payment of Fees

1. For the purpose of assessing fees, no person will be considered eligible to register in the University as a resident student unless he has resided in the state for twelve consecutive months next preceding the date of his original enrollment.
2. The legal residence of minors will follow that of the parents or legal guardians, except in the case of minors who have always resided in Kentucky but whose legal guardians are residents of other states.
3. No student shall be deemed to have gained residence privileges at the University by his mere presence at the institution. A student once classified as a non-resident will continue to be thus classified unless he can establish a change of domicile by evidence other than his residence as a student.
4. Aliens who have received their first citizenship papers may be classified under the foregoing provisions.

Refund of Fees

The registration fee and any late registration fee assessed are never refunded, and no other fees are refunded after the sixth week of a quarter. Students leaving during the first six weeks of a quarter will receive a refund, the amount of which will depend upon the date of withdrawal.

During the first week after the opening of either term of the summer quarter, students withdrawing from the University may receive a refund not to exceed 70 per cent of all fees paid. During the second week a refund of 50 per cent may be secured and during the third week a refund of 30 per cent. In no case shall the amount refunded exceed 70 per cent and in no case will refunds be made after the first three weeks.

A refund will not be granted unless the student makes his withdrawal official. All refunds must be claimed within the fiscal year of the withdrawal.

Living Expenses

The cost of room and board in the residence halls for women is $345 a year (fall, winter, and spring quarters). Rooms in the men's residence halls range in price from $20 to $38 a quarter and

board may be obtained in the University cafeteria for a minimum of $7.00 per week.

Following are estimates of **minimum** expenses for an academic year, not including the general deposit or the deposit for military uniforms. The actual expenses, of course, vary greatly according to the habits of economy or extravagance of the individual student. Fees for law students are $9.00 more than the amounts shown, and for law and engineering students the cost of books and supplies may be greater than the estimate shown.

Items of Expense	Resident Students	Non-Resident Students
Fees	$112.50	$172.50
Board and Room	345.00	345.00
Laundry and Cleaning	20.00	20.00
Books and Supplies	40.00	40.00
Incidentals	50.00	50.00
Totals	$567.50	$627.50

RESIDENCE HALLS FOR WOMEN

The University of Kentucky maintains three residence halls for women which in peacetime house about 330 women. Patterson Hall is exclusively for freshmen, Boyd Hall receives sophomores and some juniors, and Jewell Hall is primarily a senior residence. During the past year three small residence units have been maintained for 100 additional freshmen women; the Sigma Nu house, Lydia Brown house, and McDowell house. The residence units are all under the supervision of the Dean of Women and the Director of Residence Halls, assisted by a head resident in each unit.

All freshmen women are required to live in the residence halls unless residing with relatives in town. After the freshman year, students may reside in sorority houses, and upperclassmen may secure permission to live in town from the office of the Dean of Women. Unmarried women are not permitted to live in apartments.

Application blanks for reservations in the residence halls may be secured from and should be returned to the Office of the Dean of Women. No reservation will be made until the application is returned accompanied by a deposit of $10.00. This deposit will be refunded at the end of the year less any charges for damage to the room or loss of the room key. Room reservations may be cancelled with the deposit refunded if notification of the cancellation is received by the Dean of Women ten days previous to the first day of registration; after that date the deposit is forfeited. All room assignments will be made in order of the date of the completed reservation, and choice of room and roommate will be honored

whenever possible. Admission to the University by the Registrar's Office does not constitute an application for admission to the residence halls, and does not reserve a room.

All meals for all the women in the residence halls are served in the joint dining rooms of Jewell and Boyd Hall, and are under the direction of trained dieticians. Two resident nurses maintain an office hour in the fully equipped infirmary office, and are available at all times for emergency calls. A dispensary and an infirmary are maintained on the campus on a twenty-four hour basis.

The cost of room and board in all residence units is $345 a year, payable at the rate of $115 at the beginning of each quarter. Checks should be made payable to the University of Kentucky. No refunds on room and board will be made for temporary absence from the residence halls.

Students withdrawing from the halls during the first eight weeks of the quarter will receive a refund on board and room deducted at the rate of twelve per cent a week for the time the room was held. A student is considered as living in the halls until she makes an official withdrawal.

The University maintains two cooperative houses accommodating approximately 40 women students. Application for a reservation in a cooperative house should be made to the Office of the Dean of Women. Applicants are selected by the Cooperative House Committee on the basis of scholastic records and recommendations. A high scholastic average must be maintained to continue residence in a cooperative house.

During the Summer Quarter all facilities of the residence halls are available except meal service. Rates for the Summer Quarter are $18.00 for one term, and $36.00 for the complete session.

RESIDENCE HALLS FOR MEN

At present one of the men's halls, Bradley, is occupied by civilian students. It is expected that this arrangement will continue indefinitely.

All freshmen men are required, by order of the Board of Trustees, to live in the halls unless excused by the Dean of Men. Upperclassmen will be assigned rooms in the halls to the limit of capacity. The Office of the Dean of Men maintains a list of rooms that are available to students and will furnish a list to anyone interested.

Beginning with the 1945 summer quarter, prices per quarter for rooms in the men's halls will be as follows: Suites, $38 per person; double rooms, $30 per person; single rooms, $34 per person. In the basement, double rooms are $24 per person and single rooms $20.

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 always 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 quarter.** 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 or scholarships which are limited to certain colleges or departments should be addressed to the dean of the college or the head of the department concerned. Applications for loans from the general University loan funds should be addressed to the Dean of Men or the Dean of Women. Graduate scholarships and fellowships are awarded from the office of the Dean of the Graduate School. The following special loan funds and scholarships are available as indicated:

The Ashland Oil and Refining Company Scholarship. This award amounts to $500 a year and is given to one or two advanced students who have made exceptional records in industrial chemistry or mechanical engineering, and who are in need of financial assistance.

The Inland Steel Company Scholarships. These scholarships, of $400 each, are available to high school graduates of Floyd, Knott, and Pike Counties, and are awarded upon the basis of competitive examinations. Nominations for these scholarships are to be made by the county superintendents of the counties named.

The Kellogg Scholarship Fund. This scholarship is available to seniors in Medical Technology. The amount varies with the need, being sufficient at least to pay the fees for the senior year.

The Kellogg Loan Fund. Any student in Medical Technology may apply for a loan from this fund.

Jonas Weil Memorial Scholarship. This scholarship of $100 is awarded annually to a student in Agriculture by Mr. Herschel Weil of the class of 1922.

Republic Steel Corporation Scholarships. Scholarships are awarded annually by the Republic Steel Corporation to juniors in Agriculture who are interested in agricultural engineering.

4-H Club Scholarships. Through the 4-H Club Department of the Extension Division certain scholarships are available for fresh-

men in agriculture and home economics. These scholarships are awarded to those with outstanding records in 4-H Club work.

The Algernon Sydney Sullivan Scholarships. Ten grants of $50 each are made to worthy students, irrespective of classification, by the New York Southern Society.

PRIZES AND AWARDS

The following prizes and awards, other than the scholarships mentioned on page 23, are available at the University of Kentucky, primarily for excellence in scholarship.

General

Algernon Sidney Sullivan Medallions (Three)
Alpha Lambda Delta Book Prize
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

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

College of Agriculture and Home Economics

Agronomy Club Cups
Alpha Zeta Freshman Medal
Alpha Zeta Merit Key
Block and Bridle Cups
Block and Bridle Plaque
Phi Upsilon Omicron Freshman Medal

College of Engineering

E. B. Ellis Prize ($100)

College of Law

Lawyers Co-operative Publishing Co. Prize

College of Education

Kappa Delta Pi Prize ($25)

College of Commerce

Chi Omega Sorority Prize ($25)

SPECIAL SERVICES FOR THE STUDENT

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.

University Personnel Service

The University Personnel Office is under the supervision of a director, who has an advisory committee consisting of the Deans of the various colleges, the Deans of men and women, and the Assistant Registrar. The office carries on its functions through a test supervisor, a mental hygienist, and academic advisors, all of whom are directly responsible to the Director.

Advisors. Every freshman, regardless of College, is assigned to an academic advisor by the University Personnel Office. The assignment is made on the basis of personal interviews, classification test scores, and college interests. The academic advisor must be consulted by the student prior to assignment to classes. The advisor is of service to the student in the following ways: making or changing a class schedule, conducting for one quarter an orientation class, supplying information concerning University life, vocations, and personal problems.

Psychological Tests. All placement and classification tests administered to new students are given under the supervision of the University Personnel Office. For the year 1944-45, the tests given were as follows: The Kentucky General Scholastic Ability Test, The Kentucky English Test, The Kentucky Mathematics Test, and The Cooperative General Achievement Test—Part I, A Survey Test in the Social Studies. The tests are used primarily as an aid in determining the student's college, the particular courses or sections, the total academic load, and the vocational objective.

In addition, every student is given an opportunity to take aptitude and interest tests. These special tests, however, are not required for entering students.

Mental Hygiene. In cooperation with the Department of Public Health and Hygiene, a mental hygiene service is maintained. Any student who wishes may consult the mental hygienist at the University Health Service. Certain students are advised to avail themselves of this service.

Special Help Classes. The academic progress of all freshmen and most new students entering the University is followed through-

out the academic year by securing grades from instructors at the end of the six weeks' period within each quarter. In the event the student is not making satisfactory progress, he is interviewed and every attempt is made to discover the particular difficulty. Special help is given in the form of help classes to those students who, because of inadequate background, are unable to progress satisfactorily.

Academic Probation. Students placed upon academic probation by the Registrar, the Deans of the College of Arts and Sciences, Engineering, Education, and Commerce, are under the supervision of the University Personnel Office. The Personnel Director is secretary of the Scholarship and Attendance Committee.

Veterans. The University reception center for veterans is maintained in the University Personnel Office. Veterans who are receiving grants through the Veterans' Administration are cleared officially through this office.

University Health Service

The University recognizes a special obligation to protect and promote the health of its students. It has, therefore, established a University Health Service under the direction of competent medical men.

The staff consists of two full-time physicians and two part-time physicians; in addition there are two registered nurses and a laboratory technician and bacteriologist. The University Health Service has modern X-ray equipment and other laboratory equipment equal to that found in any first class clinic. The function of the service is primarily preventive and it is not designed to give extensive treatment in other than exceptional cases.

The services include infirmary facilities for both men and women students, with a sufficient number of beds to care for all ordinary demands. The infirmary is operated on a twenty-four hour basis and expert medical and nursing services are available at all times.

The cost of the medical, hospital, and laboratory services is covered by the special fee of $2.50 paid by the student at the beginning of each quarter.

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.

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.

Committee on Scholarship and Attendance. This committee considers cases of students delinquent in studies or attendance referred to it by the deans of the colleges, appeals for reinstatement of students dropped for unsatisfactory work, and other related matters.

Student Load. During any quarter the maximum load to be carried by any undergraduate student without special permission (including both residence and extension courses) shall not exceed either one-twelfth of the curriculum requirement for graduation, plus three quarter hours, or the amount specified in the curriculum for the particular quarter, whichever is larger.

A student with a standing of 2.0 or more for the preceding quarter, or a beginning freshman ranking in the upper 25 per cent on the University classification tests, may carry extra work with the approval of his dean, provided that the amount of extra work shall in no case exceed three quarter hours or the total load exceed twenty-three quarter hours.

The maximum load for a summer term (including both residence and extension) shall in no case exceed half of that which would be allowed for a quarter. Two short courses of three weeks or less in length shall not be carried concurrently either by undergraduate or graduate students.

In all cases a correspondence course shall be considered as carried during the quarter or term during which the last assignment is completed, and it shall be counted as a part of the load of that quarter or term.

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 his preceding quarter may be placed on probation by the dean of the college. If during the quarter of probation, he again fails to pass in three-fourths of the normal load, he may be dropped from the University by the dean of his college. A student who has been dropped from the University may be reinstated only by the Committee on Scholarship and Attendance.

The above rule will apply to a part-time student, carrying less than three-fourths of the normal load, if he fails to pass in half of the scheduled load.

Transfer from One Curriculum to Another. A student transferring from one curriculum of the University to another will not be allowed credit in excess of the normal load of the curriculum to which he is transferred, except as the student may be eligible for extra work.

Poor 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, who shall have power to require additional work in composition without credit.

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 may be dropped from the course, on recommendation of the dean to the Registrar.

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

Classification. A student in any college except Law shall be classified as a sophomore, junior, or senior, when he has within 10 quarter hours of the normal requirement and a standing of 1.0. However, no student may be classified as a sophomore until he has had college residence of at least three quarters, nor as a junior until he has had college residence of at least five quarters.

A Law student is classified as a second year student when he has completed 36 or more hours and as a third year student when he has completed 75 or more hours. He shall not, however, be classified as a second year student until he has been in residence at least three quarters, nor as a third year student until he has been in residence at least five quarters.

Classification of Transfer Students. A student who transfers to the University as a junior and ranks in the lowest quarter on the entrance tests will be classified as a junior conditionally. The continuance of junior classification will depend on the student's making a standing of 1.0, or more, on his first quarter's work.

Examinations for Credit. A student regularly enrolled in the University may be given a special examination for credit, provided the request for the examination is approved by the Registrar, the dean of the college, and the head of the department concerned. Application should be made in writing to the Registrar. A student who visits a class as an auditor is not allowed an examination for credit.

Extension Work. Not more than forty-eight of the quarter hours required for a bachelor's degree may be gained by extension, special examination, or both. A student may not satisfy in excess of one-half of the requirements for a major by extension, special examination, or both.

Not more than eighteen quarter hours 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.

A minimum of forty-five of the last fifty-four quarter hours presented for an undergraduate degree must be completed in residence (exclusive of credit by extension and special examination).

Entrance Examinations. All new students, other than those entering the Graduate School, are required to take the University placement tests and the University physical examination.

Absences. Absences shall be counted beginning with the first day of recitations.

The instructor shall keep a record of absences for each student. When, in his opinion, the number of absences for any student becomes excessive or appears to be unjustified, he shall report such student to the dean concerned. A student may be dropped from a course for excessive absences by the Registrar upon recommendation of the dean and the instructor. When a student is so dropped, the instructor shall report the grade the student is making at the time he is dropped.

Any student absent from class on the day immediately preceding or following a holiday shall have a penalty of one quarter hour and one quality point added to his requirements for graduation unless excused by the committee on Scholarship and Attendance.

Absences due to officially authorized trips, such as those of athletic teams; musical, oratorical, and dramatic organizations; and University classes, shall be considered as being excused absences. The faculty member in charge of an authorized trip shall give to each student concerned a statement to present to his teachers certifying that the absence is official.

No report of absences shall be required for graduate students. Any undergraduate student whose standing on the work of the previous quarter is 2.4 or better, upon application to the Registrar, shall be extended the same privilege relative to absence as graduate students.

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 details. The University expects all students

to hold to the strictest standards of honesty in all Univerity work and to conduct themselves in a seemly manner, bearing in mind that their conduct determines in a large measure the reputation of the institution.

The 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 quarter hour.
B—Good, valued at 2 points for each quarter hour.
C—Fair, valued at 1 point for each quarter hour.
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 quarter hours and 0 points.
I—Incomplete.
X—Absent from examination.
WP—Withdrew, passing.
WF—Withdrew, failing.

A grade of E means that the work must be taken over in class to be credited.

A grade of I (incomplete) means that some relatively small part of the term's work remains undone, because of sickness or other reason satisfactory to the instructor. This work must be completed within one month after the student re-enters the University if credit for the course is to be gained. The Grade I is not to be given to the student whose work is below passing.

A grade of X may be changed by special examination within one month after the student re-enters the University.

An extension of time for the removal of an I or an X may be granted by the dean of the college in which the student is enrolled.

The standing of a student is defined as the ratio of his total number of points to his total number of quarter hours. For example, a student who makes an average mark of C throughout his course of 192 quarter hours, would have 192 points and 192 quarter hours, and a standing of 1.0. An average mark of B would give the student 384 points and 192 quarter hours, and a standing of 2.0. For all purposes other than classification and graduation, "standing" is understood to be the ratio of the number of points gained to the number of quarter hours attempted.

Recording of Marks. Through the fourth Monday of any quarter, and through the tenth class day of either summer term, students who withdraw from a class or who are dropped from a class will have no mark recorded. After these dates, students who withdraw or who are dropped from a class are to be given WP, WF, or E, as reported by the instructor of the class.

In computing standings for all university purposes, a WF shall be treated as an E.

A mark once reported to the Registrar's Office shall not be changed except when the instructor states that an error has been made or that an injustice would be done the student if the mark remained unchanged.

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

Requirements for Graduation

Undergraduate Colleges. To be eligible for graduation from any undergraduate college of the University, a student must have completed the requirements of the curriculum as approved by the University Faculty. In addition to gaining the specified number of quarter hours, he must have an equal number of quality points —that is a standing of 1.0.

Curriculum substitutions may be made on recommendation of the college dean to the Registrar's Office.

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.

Regardless of the length of time the student has attended the University, a minimum of forty-five of the last fifty-four quarter hours presented for the degree must be completed in residence at the University. The last eighteen quarter hours of residence work must be completed while registered in the college through which the degree is granted. With respect to graduation requirements for ex-service men or women, the rule requiring the final year of residence may be waived for former students, provided that the total previous residence credit has been not less than forty-five quarter hours.

Not more than forty-eight of the quarter hours required for an undergraduate degree may be gained by extension, special examination, or both. A student may not satisfy in excess of one-half the requirements for a major by extension, special examination, or both.

The Graduate School. For the requirements for graduate degrees see the statement of the Graduate School, p. 121.

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

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

A student who does only 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.

The bachelor's degree 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 and by the dean of his college. Students majoring in those departments that require the final comprehensive examination are automatically candidates for department honors.

A Second Bachelor's or Master's Degree

A student may be eligible for a second bachelor's or a second master's degree when he has completed the requirements of the second curriculum. The total work for both degrees shall consist of not less than three quarters of residence and three quarters of credit beyond that of the first degree. With the approval of his dean, the student may pursue the work in the two courses simultaneously, but two degrees will not be granted at the same commencement.

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. From January, 1944, through December, 1944, the following speakers were presented:

Mrs. Ruth Bryan Owen Rohde, formerly United States Minister to Denmark; Dr. Lew Sarett, Professor of Speech at Northwestern University; Dr. Ernest L. Jacqua, of the War Manpower Commis-

sion; Major General Charles L. Scott, of Fort Knox, Ky.; Dr. Willis A. Sutton, Secretary of the Georgia Education Association; Dr. Abram L. Sachar, National Director of B'nai B'rith Hillel Foundation; Dr. Herman L. Donovan, President of the University of Kentucky; Mr. Ely Culbertson, Author of "The Plan for World Settlement;" and Dr. Daniel Poling, Editor of the Christian Herald and President of the World Christian Endeavor Union.

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 1944-45 was as follows:

Sunday Musicales

October 29—
William Primrose, Violist, Columbia Concerts

November 12—
Ira Wilder Peniston, Organist, Asbury College

November 26—
Mary Joseph Leeds, Violinist, assisted by LaVerne Gustafson, pianist, College of Music, Cincinnati

December 10—(4:00 p. m. and 8:00 p. m.)—
Christmas Choral Program by the University Choristers, Mildred S. Lewis, Director

January 21—
Robert Kuhlman, Baritone, University of Kentucky

January 28—
University Chapter of Phi Beta, Honorary Music and Dramatics Fraternity

February 4—
Mona Paulee, Mezzo Soprano, Metropolitan Opera Association

February 11—
John Shelby Richardson, Pianist, University of Kentucky

February 18—
University Women's Glee Club, Mildred S. Lewis, Director

February 25—
Senior Graduation Recital by Students of the University Music Department

March 4—
Rudolf Firkusny, Pianist, Columbia Concerts

March 11—
Sacred Oratorio—The Seven Last Words—Dubois. Mildred S. Lewis, Director; Lela W. Cullis, Organist

Other Cultural Opportunities. The University provides many other cultural opportunities in addition to the regular convocations and musicales. Some of the colleges hold assemblies regularly 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 forums and informal discussions in the Student Union, 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 activites 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 the University's new FM Station WBKY, WHAS, Louisville, and WLAP, Lexington. Excellent exhibits, 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, now limited to seventy-five, and at present there is a long waiting list of students who wish to become members. There are also active student denominational groups and Sunday School classes for students in the respective churches. The Y.M.C.A. and the Y.W.C.A. have various active religious groups meeting regularly.

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 year book 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 student organizations. A list of these follows:

Honor Societies

Alpha Lambda Delta (Freshmen women)
Beta Gamma Sigma (Commerce)
Kappa Delta Pi (Education)
Order of the Coif (Law)
Phi Beta Kappa (Arts and Sciences)
Tau Beta Pi (Engineering)

Leadership Societies

Cwens (Sophomore women)
Mortar Board (Senior women)
Omicron Delta Kappa (Senior men)
Lamp and Cross (Senior men)
Lances (Junior men)
Keys (Sophomore men)

Recognition Societies

Alpha Zeta (Agriculture—men)
Chi Delta Phi (Literary—women)
Phi Alpha Theta (History)
Phi Upsilon Omicron (Home Economics)
Pi Mu Epsilon (Mathematics)
Pi Sigma Alpha (Political Science)

Sigma Gamma Epsilon (Geology)
Sigma Pi Sigma (Physics)
Theta Sigma Phi (Journalism)

Professional Societies

Alpha Chi Sigma (Chemistry)
Block and Bridle (Animal Husbandry)
Pershing Rifles (Military)
Phi Alpha Delta (Law)
Phi Beta (Music-Speech-Art —women)
Phi Delta Kappa (Education —men)
Phi Delta Phi (Law)
Phi Mu Alpha (Music—men)
Scabbard and Blade (Military)

Clubs and Societies

Accounting Club
Agronomy Club
Alma Magna Mater
American Institute of Electrical Engineers
American Institute of Mining and Metallurgical Engineers
American Society of Civil Engineers
American Society of Mechanical Engineers
Art Club
Ateneo Castellano
Aviation Club
Bacteriological Society
Baptist Student Council
Business Education Club
College Chamber of Commerce
Cosmopolitan Club
Cub Club
Dairy Club
Dutch Lunch Club
Future Teachers of America
German Club
Graduate Club
Home Economics Club
Hort Club
International-Relations Club
K-Club
Le Cercle Francais
Newman Club
Outing Club
Pan-Politikon
Patterson Literary Society
Phalanx Fraternity
Philosophy Club
Pitkin Club
Poultry Club
Press Club
Pryor Pre-medical Society
Secretarial Club
Tau Sigma—(Dance)
University 4-H Club
Veterans' Club
White Mathematics Club

Administrative and Service Organizations

Agricultural Council
Debate and Oratory Groups
Guignol
House President's Council
Inter-Fraternity Council
Men's Glee Club
Student Bar Association
Student Government Association
Student Union Board
Suky
University Choristers
University of Kentucky Band
University of Kentucky Orchestra
University of Kentucky Troupers
Women's Administrative Council
Women's Athletic Association
Women's Glee Club
Women's Panhellenic Association
Y. M. C. A.
Y. W. C. A.

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 home-coming 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. The officers for 1944-1945 are as follows: President, Grover Creech, '20; Vice-President, David L. Thornton, '20; Executive Secretary, Marguerite McLaughlin, '03; Assistant Secretary, Jeannette Graves, '43; and Acting Treasurer, Helen King, '25.

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 of 15,000 acres at Quicksand, and the sub-experiment station of 600 acres at Princeton. The buildings on the Lexington campus now number more than fifty. 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 University, the Dean of the College of Arts and Sciences, the Dean of Men, the Dean of Women, the Comptroller, the Registrar, the Department of Public Relations, and the University Personnel Service. The building also houses the Geological Museum and the departments of Ancient Languages and Political Science.

Aeronautical Research Laboratory. Built in 1940, this laboratory is designed for aeroplane motor testing. The laboratory is operated by the College of Engineering.

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 finance, fertilizer, feed, and seed control, and agricultural extension. 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 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, classroom, and storerooms of the Military Department, the rifle range, the women's gymnasium, and the Department of Physical Education for Women.

Biological Sciences 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.

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 Animal Pathology Building, the Small Animal House, the Dairy Products Building, the Livestock Judging Pavilion, the Agricultural Engineering Building, the Meat Laboratory, the Aeronautical Labora-

* Currently used by the U. S. Army.

tory, the Animal Pathology Building, and the Insectary and Conservatory.

This plant is especially equipped, instrumented, and diversified for use as a practical steam laboratory by mechanical engineering students.

Coal Research Laboratory. This building houses a pilot plant for the low temperature production, from coal, of motor fuels, lubricants and high grade, smokeless, solid fuels as well as the base materials from which explosives, plastics, and synthetic rubber may be manufactured. Oil shales and other carbonaceous materials may also be processed in this plant. The laboratory is operated by the Department of Mining and Metallurgical Engineering. (Not shown on map.)

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 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 offices of the Dean and the Assistant Dean of the College of Engineering, 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.

Hamilton House. This is one of the University's cooperative houses for women students.

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

Highway Materials Research Laboratory. This laboratory is jointly operated by the Department of Civil Engineering and the State Department of Highways.

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

Hospital Barn. This building is used to house the experimental animals of the Department of Animal Pathology.

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

Jewell Hall. This is an addition to Boyd Hall, and is the third unit of the residence halls for women. (Shown on map as part of Boyd Hall.

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 and the offices of the Kentucky Law Journal.

Library. The University Library, including departmental collections, contains approximately 360,000 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.

Lydia Brown House. This is a residence hall for women. (Not shown on map.)

McDowell House. This is a residence hall for women. (Not shown on map.)

McVey Hall. In this building are located the offices and classrooms for the departments of English, Mathematics, and Journalism, 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. The Departments of Geology, German, and seats about 1,100 persons and is equipped with a pipe organ.

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

Mining Laboratory. This building houses a complete pilot plant for the beneficiation of ores by both wet and dry methods. It also contains a chemical laboratory designed for analytical investi-

* Currently used by the U. S. Army.

gations of coals and ores. It is operated by 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.

Nursery School. The nursery school is operated by the Department of Home Economics.

Observatory. This is the observatory of the Department of Mathematics and Astronomy. (Not shown on map.)

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 Division of Maintenance and Operations.

Small Animal Laboratory. This building is used as an experimental laboratory in agriculture. (Not shown on map.)

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 greenhouses contained in this building the College of Agriculture and Home Economics is carrying forward research in tobacco culture and curing.

Veterinary Building. This building is used in connection with the study of animal diseases.

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

Additional buildings include the cooperative houses for women students, the horticultural greenhouses, the meat laboratory, residences, barns, and storage buildings.

PART II

EDUCATIONAL OPPORTUNITIES AT THE UNIVERSITY OF KENTUCKY

DEGREES AND CURRICULA

For instructional purposes the University is organized into a College of Arts and Sciences, a College of Agriculture and Home Economics, 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 four quarters of approximately twelve weeks each, the summer quarter being divided into two terms. 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
Bachelor of Arts in Journalism
Bachelor of Science
Bachelor of Science in Industrial Chemistry
Bachelor of Science in Library Science (Prerequisite, a bachelor's degree)
Bachelor of Science in Medical Technology
Bachelor of Science in Music

College of Agriculture and Home Economics

Bachelor of Science in Agriculture
Bachelor of Science in Home Economics

College of Engineering

Bachelor of Science in Civil Engineering
Bachelor of Science in Electrical Engineering
Bachelor of Science in Mechanical Engineering
Bachelor of Science in Metallurgical Engineering
Bachelor of Science in Mining Engineering

College of Law

Bachelor of Laws

College of Education

Bachelor of Arts in Education

College of Commerce

Bachelor of Science in Commerce

Graduate School

Master of Arts
Master of Arts in Education
Master of Science
Master of Science in Agriculture
Master of Science in Civil Engineering
Master of Science in Education
Master of Science in Electrical Engineering
Master of Science in Home Economics
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
Electrical Engineer
Mechanical Engineer
Metallurgical Engineer
Mining Engineer
Doctor of Philosophy

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-seven departments as follows: Anatomy and Physiology, Ancient Languages and Literatures, Anthropology and Archaeology, Art, Bacteriology, Botany, Chemistry, Economics, English Language and Literature, Geography, 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 and Home Economics. Students in agriculture have ten options: general agriculture, high school teaching, agricultural entomology, agronomy, animal husbandry, dairying, poultry, farm economics and rural sociology, markets and rural finance, and horticulture. There is also a short non-degree program in practical agriculture. Students in home economics have five options: general home economics, high school teaching, institution economics, clothing, textiles and related art, and child development and family living.

College of Engineering. In the College of Engineering the student may pursue any one of the following curricula: a general

curriculum in civil engineering, a civil engineering curriculum with emphasis on sanitary engineering, a civil engineering curriculum with emphasis on architectural engineering, an electrical engineering curriculum with emphasis on communication engineering, an electrical engineering curriculum with emphasis on electrical power engineering, a general curriculum in mechanical engineering, a mechanical engineering curriculum with emphasis on aeronautical engineering, a curriculum in metallurgical engineering, and a curriculum 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, a business-management curriculum, an industrial-administration curriculum, a marketing and advertising curriculum, a commerce-law curriculum, and a secretarial curriculum. The large amount of elective work allowed in some of the curricula makes it possible to combine a business program with other professional fields or with groups of liberal arts courses.

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, romance languages, and psychology.

DEGREES AND CURRICULA IN THE COLLEGE OF ARTS AND SCIENCES

Paul Prentice Boyd, M. A., Ph. D., LL. D., Dean
Martin Marshall White, M. A., Ph. D., Associate 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 acquiring and using knowledge, to the end that he may be broadly informed and skillful in the solution of problems, which is the essence of thinking, and that he 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 interest, resourceful, capable of continuous growth and of adaption 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, Bacteriology, Botany, Chemistry, English Language and Literature, Geography, 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, and Zoology. These twenty-seven departments have been grouped into four divisions: Literature, Philosophy, and the Arts; Social Studies; Physical Sciences; and Biological Sciences.

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. The College, however, recommends strongly that the student present for admission two units of mathematics.

Lower Division Advisers. Every student entering the college is assigned an academic adviser. The assignment is made on the basis of the student's interests and achievement. To minimize the possibility of the academic adviser's considering the new freshman as a major, heads of departments are not appointed as freshman advisers except where absolutely necessary. The dean of the college appoints the academic advisers annually.

The adviser makes out the student's course of study on the basis of information supplied by the Dean's office and by the advisee. He must be consulted before any changes are made in the schedule of classes the student is taking. The adviser in general meets his advisees as a group once a week for two quarters, holds personal conferences with each advisee, and makes recommendations to the proper university official with reference to living conditions, class schedules, etc. For example, a freshman who is having special difficulty with a particular class may upon the recommendation of the adviser be put in a special class. A freshman may upon the recommendation of the adviser be permitted to carry above a normal academic load.

At mid-term each adviser is supplied with a statement of each advisee's progress in each class. He interviews the student, and near the end of the quarter sends a written report to the associate dean's office on each advisee. This report covers such items as sources of difficulty, pattern of academic interests, suggested courses of action to aid the student, etc.

Upper Division Advisers. The Dean of the college appoints a professor in the department in which the student is doing his major work to act as the student's adviser. The adviser must approve the student's schedule of classes prior to the placement of the student in the various courses.

Probation Students. Students placed on academic probation by the Dean of the college are under the special supervision of the associate dean. The parent is notified at the beginning of the probation period. At mid-quarter a report of the student's progress is sent home. During the quarter the student is interviewed and every attempt is made to determine his difficulty. The student is placed in special help classes if it seems to be desirable. The attitude of the college toward probation students is that they need assistance and with the cooperation of the parents the college attempts to fulfill this need.

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 lowest 25 per cent on the placement tests 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 library science, in music, and in medical technology.

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

4. Preprofessional courses meeting the requirements for admission to professional schools.

5. Combined courses, by means of which students may save a year or more in gaining both the A. B. or B. S. and a degree in law, medicine, or 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 Library Science, Bachelor of Science in Music, and 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 192 quarter hours and 192 points,* that is, a standing of 1.0; 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:

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* Unless otherwise specified a quarter hour represents one hour of recitation or two hours of laboratory a week for one quarter. Drawing, Shopwork, Physical Education, and other courses requiring no outside preparation are reckoned at three hours for one quarter hour.

Substitute the following for *Lower Division* on page 51:

NEW REQUIREMENTS FOR THE LOWER DIVISION

(Effective for new students after September 1, 1945)

I. General Requirements

Freshman Orientation, first quarter, freshman year, 1 quarter hour.
English, first, second, and third quarters, freshman year, 9 quarter hours.
General Hygiene, first, second, or third quarter, freshman year, 2 quarter hours.
Physical Education, freshman and sophomore years, 6 quarter hours.
Military Science (men), freshman and sophomore years, 12 quarter hours.

II. Group Requirements

Humanities, freshman or sophomore year, 8 to 10 quarter hours.
(Literature, Art, Music, Philosophy.)
Social Studies, freshman or sophomore year, 8 to 10 quarter hours.
(Economics, Geography, History, Political Science, Sociology.)
Physical Sciences, freshman or sophomore year, 8 to 10 quarter hours.
(Astronomy, Chemistry, Geology, Mathematics, Physics.)
Biological Sciences, freshman or sophomore year, 8 to 10 quarter hours.
(Anthropology, Bacteriology, Botany, Physiology, Psychology, Zoology.)
Foreign Languages until proficiency examination is passed on 10 quarter hours.
(French, German, Greek, Italian, Latin, Spanish.)

III. Ways in Which the Group Requirements May Be Satisfied

1. *The Humanities.* All lower division students will be required to complete a series of three introductory courses in the Humanities (for a total of nine quarter hours), to be chosen in any combination of three from the following specific courses, except that one, and not more than two, shall be selected from the literature courses: (Each of these courses will carry three quarter hours).

English A, Introduction to Humanities Through English Literature; Romance Language A, Introduction to Humanities Through Romance Literature; German A, Introduction to Humanities Through German Literature; Philosophy A, Introduction to Humanities Through Philosophy; Music A, Introduction to Humanities Through Music; and Art A, Introduction to Humanities Through Art.

2. *The Social Studies* The student is permitted to choose one of the following sequences, to satisfy the group requirement in the social studies: (Each sequence will carry ten quarter hours).

History 10a, b or Political Science 10a b, American Civilization; History 8a, b or Political Science 8a, b, European Civilization; Sociology 3a, b or Geography 3a, b, Societies Around the World.

3. *The Biological Sciences.* Those students who, upon entering the University, state that they expect to elect a science curriculum shall satisfy the biological group requirements of the lower division by any general course or courses in one of the departments of the biological group. Other students shall satisfy the group requirements in the biological sciences by taking any two of the following courses: Anatomy and Physiology 2; Anthropology 1 or 2; Botany 8; Psychology 1; Zoology 25.

4. *The Physical Sciences.* Students will be permitted to take work in either one or two departments in order to satisfy the physical science group requirement. The student may choose eight or more hours from the following courses: Astronomy 51a, b; Chemistry 1a, b, 4a, b, Geology 50a, b, c, (50a is prerequisite for 50b or c), 14a, b, c (in connection with 50a, b, c), 3, 30a, b, c, 52; Mathematics 5a, b (only one counted on group), 17, 3, 19; Physics 1a, b, c, 3a, b, c, 51, 52, 53 (51 is prerequisite for 52 or 53).

IV. Freshman Core Curriculum

	Qtr. Hrs.
Orientation	1
General Hygiene	2
Military Science (men)	6
Physical Education	3
English	9
Humanities, or Social Studies	8-10
Physical or Biological Sciences	8-10
Foreign Languages or free electives	10

V. Total number of quarter hours required in Lower Division: 102.

VI. The normal load per quarter is 17 quarter hours.

VII. Rules and Procedures

1. Superior Students: Entering freshmen, in the upper twenty-five per cent of the classification scale, as determined by University of Kentucky classification tests, may substitute other courses in the groups for those courses which are set up especially to satisfy group requirements. Other students, in the top twenty-five per cent of the classification scale of the University of Kentucky classification tests, with a standing of 2, may be granted the same privilege.

2. The requirements in whole or in part for English, for General Hygiene, and for any of the Groups under Section II, may be satisfied without credit by passing a departmental proficiency examination.

3. A student deficient in English, as indicated by the freshman tests, will be required to pass English D (with no credit) in his first quarter, and the regular freshman English course in his second, third, and fourth quarters, or whenever he has satisfactorily removed the deficiency.

4. A student deficient in mathematics, as indicated by the freshman tests, will be required to pass Mathematics D (with no credit).

LOWER DIVISION

Freshman and Sophomore Years

General Requirements

Freshman Orientation, first and second quarters, freshman year, 2 quarter hours.

English, 9 to 19 quarter hours (19 quarter hours required if only 3 units of entrance are presented).

General Hygiene, freshman or sophomore year, 2 quarter hours.

Physical Education, freshman and sophomore years, 6 quarter hours.

Military Science (men), freshman and sophomore years, 12 quarter hours.

Group Requirements

Foreign Languages, 4 to 28 quarter hours.
Two quarters in one language, if 3 or more units of entrance are presented; four quarters in one language, if only 2 units; five quarters in one language, or four quarters in one language and two in another, if only 1 or no unit of entrance. A student may take after any quarter of foreign language, a departmental examination which, if passed, will fulfill this requirement.

Social Studies, at least 8 quarter hours in one department (Economics, History, Political Science, or Sociology).

Mathematics, Philosophy, or Psychology, at least 8 quarter hours in one department.

Physical Sciences, at least 8 quarter hours in one department (Astronomy, Chemistry, Geology, or Physics).

Biological Sciences, at least 8 quarter hours in one department (Bacteriology, Botany, Physiology, or Zoology).

UPPER DIVISION

Junior and Senior Years

The student is required to gain, while registered in the Upper Division, at least 60 quarter hours in a Field of Concentration. These 60 quarter hours 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, and Romance Languages and Literatures.

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

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

Courses outside of the formal field of concentration may be included in the required 60 quarter hours on approval of the adviser and the dean.

If the student elects a generically related field he is required to gain at least 22 quarter hours 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 cencentration is to be worked out for the entire two years by the student and his adviser, and when approved by adviser and dean is 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 8 quarter hours 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 teachers' certificates, it is provided that, if necessary, 9 quarter hours in Education may be included in the 60 quarter hours of the concentration field, in fields other than Social Studies.

A student electing a combination course in Arts and Medicine, Dentistry or Law, is required to complete 30 quarter hours 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. Examples of central themes are "Public Opinion," "The Romantic Movement," "Biochemistry," and "Scientific Secretaryship." The student will take a minimum of sixty quarter hours in courses not open to freshmen closely connected with the central theme. If he chooses the central theme of "The Romantic Movement," he will take courses in English, foreign languages, Economics, History, Philosophy, sciences, and Art. If "Scientific Secretaryship," the courses will be in the College of Commerce, the Departments of Anatomy and Physiology, Bacteriology, Botany, Chemistry, English, Economics, etc.

Students interested in the Topical Field will be referred by the Dean to the Chairman of the committee in charge and this committee will aid the student in making out his course schedule for the particular topic.

To pursue a topical field, the student must have earned a minimum academic standing of 1.5 during the freshman and sophomore years, and must have the approval of the Committee on Topical Fields which will require as a rule completion of the lower division group requirements as prerequisites.

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 examinations 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 had 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 quarter papers of some sustained effort. Credit for such courses may be granted to undergraduates to an amount of not more than 18 quarter hours. At the end of the quarter 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 paper must be filed in the office of the head of the department concerned.

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 quarter'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 quarter's work.

Classification in Foreign Languages

Students who present foreign languages for entrance are classified in college languages according to the amount of such secondary school work. For example, a student who presents one unit of entrance in a foreign language is not allowed to carry for credit the beginning quarter'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 45 quarter hours. 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 12 quarter hours of law during 2 quarters 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.

Residence Requirements

A minimum of 45 of the last 54 quarter hours presented for the degree must be completed in residence at the University. The last 18 quarter hours of residence work must be completed while registered in the college through which the degree is granted.

Extension and Special Examination

A maximum of 48 quarter hours, taken by extension, special examination, or both, may be counted toward the baccalaureate degree. Not more than half of the quarter hours required for the major may be gained by extension, special examination, or both.

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 90 quarter hours in science.

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 147 quarter hours in Arts and Sciences subjects, with a standing of 1.0 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 30 quarter hours 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 com-

pletion of his Arts and Sciences requirements, and must have gained at least 45 quarter hours 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 quarter hours to bring his total in the Arts and the professional work up to 192 quarter hours, and must secure a standing of at least 1.0, or its equivalent, in the professional work. Professional courses duplicating Arts and Sciences courses, or duplicating courses elected in other colleges of the University by the student while registered in the College of Arts and Sciences, will not be counted in the total. In the combined Arts-Dentistry course, the arts degree will not be conferred until after the completion of the dentistry course.

PRE-MEDICAL COURSES

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

As stated above, the student may also pursue a combination Arts-Medicine course, spending three years at the University before transferring to the Medical School and obtaining his A.B. or B.S. after the first year in Medical School.

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 in 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, W. D. Funkhouser, and R. S. Allen, Chairman.

No student is to be allowed to take, with the sanction of the University of Kentucky, the aptitude test of the Committee on Aptitude Tests of the Association of American Medical Colleges unless he has a standing of 1.4 or better.

Recommended Courses Preparatory to the Study of Medicine*

First Quarter	Qutr. Hrs.	Second Quarter	Qtr. Hrs.	Third Quarter	Qtr. Hrs.
Orientation A Required of all	1	Orientation B Required of all	1	English 1c English Comp.	3
Chem. 1a General Chem.	5	Chem. 1b General Chem.	5	Chem. 4 Qualitative Analysis	6
Zool. 1a General Zoology	4	Zool. 1b General Zoology	4	Zool. 1c General Zoology	4
English 1a English Comp.	3	English 1b English Comp.	3	Mil. Sci. 1c First Year Basic Course, Infantry	2
Mil. Sci. 1a First Year Basic Course, Infantry	2	Mil. Sci. 1b First Year Basic Course, Infantry	2	Phys. Ed. Gymnasium or Field Athletics	1
Phys. Ed. Gymnasium or Field Athletics	1	Phys. Ed. Gymnasium or Field Athletics	1		

* 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 medical schools require none or only one year. If the student is a candidate for the A.B. or B.S., he will be required to take from 4 to 28 quarter hours of Foreign Language, according to his entrance units.

Math. 17 and 3 are advised and should be taken sometime during the freshman year.

SOPHOMORE YEAR

Fourth Quarter	Qtr. Hrs.	Fifth Quarter	Qtr. Hrs.	Sixth Quarter	Qtr. Hrs.
German or French	4 or 5	German or French	4 or 5	German or French	4
†*Chem. 30a Organic Chem. or †Chem. 21a Quantitative Analysis	5 or 4	†*Chem. 30b Organic Chem. or †Chem. 21b Quantitative Analysis	5 or 4	*Chem. 30c Organic Chem. or Chem. 21c or A Group Requirement	5 or 4 or 5
Physics 1a General Physics	5	Physics 1b General Physics	5	Physics 1c General Physics	5
Mil. Sci. 6a Second Yr. Basic Course, Infantry	2	Mil. Sci. 6b Second Yr. Basic Course, Infantry	2	Mil. Sci. 1c Second Yr. Basic Course, Infantry	2
Phys. Ed. Gymnasium or Field Athletics	1	Phys. Ed. Gymnasium or Field Athletics	1	Phys. Ed. Gymnasium or Field Athletics	1

* Some medical schools require only an abbreviated course in Organic Chemistry.

† Choice depending on length of preparatory course desired.

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 (exclusive of certain specific courses) with a standing of 1.0 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 special emphasis on English, history, economics, accounting, political science, and psychology. See page 17.

ANATOMY AND PHYSIOLOGY

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 a 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.

Suggested Courses for a Major in Anatomy and Physiology

JUNIOR YEAR

First Quarter	Qtr. Hrs.	Second Quarter	Qtr. Hrs.	Third Quarter	Qtr. Hrs.
Psych. 1 Intro. to Psychology	6	Soc. Sci., Hist., Pol. Sci., Sociology, or Ec. Hist.	4	Soc. Sci., Hist., Pol. Sci., Sociology, or Ec. Hist.	4
Chem. 127a Organic Chemistry	5	Psych. Elective	4	Chem. 127c Organic Chemistry	5
Zool. 101a Histology	4	Chem. 127b Organic Chemistry	5	Zoology 106 Embryology	6
Anat. & Phys. 105 Architecture of Human Skeleton	5	Anat. & Phys. 106 Intro. to Endocrinology	4		

SENIOR YEAR*

Fourth Quarter	Qtr. Hrs.	Fifth Quarter	Qtr. Hrs.	Sixth Quarter	Qtr. Hrs.
Anat. & Phys. 116a Seminar (Tutorial)	1	Anat. & Phys. 116b Seminar (Tutorial)	1	Anat. & Phys. 116c Seminar (Tutorial)	1
Anat. & Phys. 108a Adv. Phys.	4	Anat. & Phys. 108b Adv. Phys.	4	Anat. & Phys. 108c Adv. Phys.	4
Chem. 101a Physical Chem.	4	Chem. 101b Physical Chem.	4	Bact. 52, Prin. of Bacteriology	6
English 3a Hist. of Eng. Lit.	5	English 3b Hist. of Eng. Lit.	5	Hyg. 1, Personal and Community Health	2
Elective modern lang., social subject, or Botany	4	Elective (Cont. elective subj.)	4	Elective (Cont. elective subj.)	4

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

BACTERIOLOGY

The Degree of B.S. in Medical Technology

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 curriculum in Medical Technology. The curriculum in Medical Technology is prescribed 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 public health 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, in affiliation with the Good Samaritan Hospital, is registered, through the Department of Bacteriology, as an approved school for the training of medical technologists 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.

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

FRESHMAN YEAR

First Quarter	Qtr. Hrs.	Second Quarter	Qtr. Hrs.	Third Quarter	Qtr. Hrs.
Orientation	1	Orientation	1	Chem. 4	6
Chem. 1a	5	Chem. 1b	5	English 1b	3
English 1a	3	Zool. 1b	4	Zool. 1c	4
Bact. 2a	6	Bact. 2b	6	P. E.	1
P. E.	1	P. E.	1	Mil. Sc. 1c (Men)	2
Mil. Sc. 1a (Men)	2	Mil. Sc. 1b (Men)	2		
Women 18 Men 20		Women 17 Men 19		Women 16 Men 18	

SOPHOMORE YEAR

Fourth Quarter	Qtr. Hrs.	Fifth Quarter	Qtr. Hrs.	Sixth Quarter	Qtr. Hrs.
Chem. 21a	4	Chem. 21b	4	Zool. 7c	6
Bact. 56a	4	Bact. 56b	4	Bact. 57a	4
Zool. 1a	4	For. Lang.		For. Lang.	
A. & P. 1a	4	(Women)	5	(Women)	5
P. E.	1	or		or	
Mil. Sc. 2a (Men)	2	Mil. Sc. 2b (Men)	2	Mil. Sc. 2c (Men)	2
		A. & P. 1b	4	P. E.	1
Women 17 Men 19		P. E.	1	Women 16 Men 13	
		Women 18 Men 15			

JUNIOR YEAR

Seventh Quarter	Qtr. Hrs.	Eighth Quarter	Qtr. Hrs.	Ninth Quarter	Qtr. Hrs.
Physics 1a	5	Physics 1b	5	Physics 1c	5
Bact. 103	6	Bact. 125a	5	Bact. 125b	3
Bact. 110a	3	Bact. 110b	3	Bact. 110c	3
Zool. 101a	4	Zool. 101b	4	Zool. 106	6
	18		17		17

SENIOR YEAR

Tenth Quarter	Qtr. Hrs.	Eleventh Quarter	Qtr. Hrs.	Twelfth Quarter	Qtr. Hrs.
Chem. 130a	5	Chem. 130b	5	Chem. 130c	5
For. Lang., Math., Phil., Psych. or Social Sci.		For. Lang., Math., Phil., Psych. or Social Sci.		Bact. 111	6
				Bact. 120c	5
				Bact. 150c	1
†Elective	3 to 5	†Elective	3 to 5		
Bact. 120a	6	Bact. 120b	4		
Bact. 150a	1	Bact. 150b	1		
		Physics 120	3		
	15 to 17		16 to 18		17

Minimum quarter hours required for degree—204.
† Women must take at least 4 hours per quarter.

CHEMISTRY

The Department of Chemistry provides an opportunity for students to gain a Bachelor's degree with Chemistry as a major and a Bachelor of Science in Industrial Chemistry degree. The curriculum in Industrial Chemistry is a prescribed course, the purpose of which is to train persons who desire to follow Chemistry as a profession in the chemical industries or to pursue advanced training in graduate schools. For those persons who are desirous of combining training in Chemistry (a) with library techniques to become librarians in the scientific libraries, (b) with commerce subjects to become technical salesmen or secretaries for scientific or industrial laboratories, (c) with home economics subjects to obtain a background for work in the field of foods, textiles, etc., or (d) with other combinations, an opportunity to develop such programs is afforded under the Topical Field offered by the College of Arts and Sciences.

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 2b 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 physics and solid geometry. Unless so taken these preliminary courses must be taken at the University.

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

FRESHMAN YEAR First Quarter	Qtr. Hrs.
Orientation	1
Military Science 1a	2
Physical Education	1
English 1a	3
Mathematics 17 (College Algebra)	5
Chemistry 1a (General)	5
Hygiene 1	2
	19
Second Quarter	
Orientation	1
Military Science 1b	2
Physical Education	1
English 1b	3
Mathematics 3 (Trigonometry)	5
Chemistry 1b (General)	5
Engineering Drawing 1a	2
	19
Third Quarter	
English 1c	3
Military Science 1c	2
Physical Education	1
German 1a	5
Mathematics 19 (Analytic Geometry)	5
Chemistry 20 (Qualitative Analysis)	6
	22

SOPHOMORE YEAR Fourth Quarter	Qtr. Hrs.
Military Science 6a	2
Physical Education 1	1
Chemistry 21a (Quantitative Analysis)	4
Mathematics 20a (Diff. Calculus)	5
German 1b	5
Physics 3a	6
	23
Fifth Quarter	
Military Science 6b	2
Physical Education	1
Chemistry 21b	4
Mathematics 20b (Int. Calculus)	5
German 2a	4
Physics 3b	6
	22
Sixth Quarter	
Military Science 6c	2
Physical Education	1
Chemistry 21c	5
Mathematics 25 or 105 (Dif. Equations)	4
German 2b	4
Physics 3c	6
	22

JUNIOR YEAR	Qtr. Hrs.
Seventh Quarter	
Chem. 130a (Organic)	5
Chem. 140a (Physical)	5
*Biological Science	4
†Elective	5
	19
Eighth Quarter	
Chem. 130b (Organic)	5
Chem. 140b (Physical)	5
*Biological Science	4
†Elective	5
	19
Ninth Quarter	
Chem. 130c (Organic)	5
Chem. 140c (Physical)	5
Commerce 1 (Principles of Economics)	5
English 6 (Public Speaking)	3
	18

SENIOR YEAR	Qtr. Hrs.
Tenth Quarter	
Chem. 133a (Qualitative Organic)	5
Chem. 160 (Comprehensive Survey of Chemi. Mfg. Processes)	3
Chem. 141 (Intermediate Physical)	4
Chem. 181 (Chemical Literature)	1
‡Chem. 188a (Seminar)	0
English 30 (Business Eng.)	3
†Elective	5
	21
Eleventh Quarter	
Chem. 121 (Semimicro Quantitative Anal.)	4
Chem. 161 (Industrial Chemical Calculations)	4
Chem. 110a (Advanced Inorganic)	3
Chem. 111 (Synthetic Inorganic)	2
‡Chemistry 188b (Seminar)	1
†Elective	5
	19
Twelfth Quarter	
Chem. 120	5
Chem. 110b (Advanced Inorganic)	3
Chem. (elective)	2–5
Electives (Physics or Mathematics	4
Chem. 188c (Seminar)	1
	15–18

Minimum quarter hours for degree, 237.

* The Biological Science requirement is to be elected by the student from selected courses in this field with the approval of the Department of Chemistry.

† The Lit., Phil., and Arts or Soc. Studies electives are to be chosen from courses designated by the Department of Chemistry. A student who is planning on graduate work must select 10 hours of this requirement in French.

‡ Chemistry 188a-b (Undergraduate Seminar). Each senior is required to present a minimum of three reports to the student-faculty group for each quarter hour of credit earned. Attendance at the seminar for two quarters is required before the first quarter hour of credit is earned.

GEOLOGY

The demand for the professional geologist comes from the need for 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 this mineral resource. 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.

List of Courses for Professional Training in Geology

	Qtr. Hrs.
FRESHMAN YEAR	
*Geology 50a,b—Outlines of Geology	8
SOPHOMORE YEAR	
Geology 30a,b,c—General Geology	15
Geology 10a,b,c—Field Geology	9
Geology 31a,b—Lab. Work in Regional Historical Geology	4
JUNIOR YEAR	
Geology 107a,b,c—Advanced Field Geology	9
Geology 123a,b—Mineralogy	8
Geology 106a—Economic Geology	4
Geology 118—Field Work in Regional Geology (Summer)	3
SENIOR YEAR	
Geology 106b—Economic Geology	4
Geology 101a,b—Paleontology	8
Geology 124a,b,c—Regional Geology	9
Geology 107d,e,f—Adv. Field Geology	9
Geology 125—Methods of Subsurface Correlation	4
Geology 122—Petroleum Geology	4
Geology 126a,b,c—Seminar	3

ALLIED SCIENCES, ETC.

Chemistry—General and Qualitative
Physics—General Elementary
Zoology—General Zoology
Mathematics—College Algebra, Trigonometry, Analytics, and Calculus
Engineering—Mechanical Drawing and Plane Surveying
Foreign Language—Reading knowledge of French or German

* A sophomore may enter Geol. 30a,b,c without taking 50a,b.

The suggested courses do not constitute a prescribed curriculum. 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, c. For Petroleum Geology attention is called to courses available in Petroleum Engineering. For later training in Geo-physical methods substitute Physics 3a, b, c, for Chemistry 20 and 21a, b, c.

HYGIENE AND PUBLIC HEALTH

The functions of the department are threefold; namely, medical service to the students, teaching, and research. In the performance of each of these functions primary emphasis is placed upon the prevention of disease and the promotion of health.

The medical service consists of complete physical examinations of all entering students, the maintenance of a Student Health Service on the campus, and calls by physicians of the staff to "boarding and rooming" students who are ill in their rooms.

The department offers courses in health open to students in the various colleges of the University. A full year of work is

offered to graduate nurses in preparation for public health nursing. Also, courses leading to the degree of Master of Science in Public Health are offered especially for the preparation of medical officers of health.

JOURNALISM

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 the 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.

The Degree of A.B. In Journalism

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

Curriculum Leading to the Degree of A.B. in Journalism
General Sequence

FRESHMAN YEAR		SOPHOMORE YEAR	
Course	Qtr. Hrs.	Course	Qtr. Hrs
Journalism 2	3	Journalism 20a, 20b	10
English 1a, 1b, 1c	9	English 3a, 3b	10
Modern Foreign Language	10	Modern Foreign Language	8
Psychology	9	Biological or Physical Science	8
History 5a, 5b	10	Economics 1	5
Physical Education	3	Journalism 21 or Social Science	4
Military Science (Men)	6	Physical Education	3
Orientation A	1	Military Science (Men)	6
	51	Hygiene	2
			56

JUNIOR YEAR		SENIOR YEAR	
Course		Course	
Journalism 104a, 104b	10	Journalism 106	4
Journalism 105	3	Journalism 107	3
Journalism 123a, 123b	6	Journalism 108	4
Electives	28	Journalism 127	3
	47	Journalism 90	1
		Electives	30
			45

Minimum quarter hours required for degree—199.

Curriculum Leading to the Degree of A.B. in Journalism
Community Sequence

FRESHMAN YEAR

Course	Qtr. Hrs.
Journalism 2	3
English 1a, 1b, 1c	9
Modern Foreign Language	10
Psychology	9
History 5a, 5b	10
Physical Education	3
Military Science (Men)	6
Orientation A	1
	51

SOPHOMORE YEAR

Course	Qtr. Hrs.
Journalism 20a, 20b	10
English 3a, 3b, Sociology 1, 2	10
Modern Foreign Language	8
Biological or Physical Science	8
Economics 1	5
Journalism 21 or Social Science	4
Physical Education	3
Military Science (Men)	6
Hygiene	2
	56

JUNIOR YEAR

Course	
Journalism 102	4
Journalism 103	4
Journalism 104a, 104b	10
Journalism 105	3
Journalism 123a, 123b	6
Sociology 101	4
Sociology 105, 112, or 121	4
Political Science 52	5
Electives	7
	47

SENIOR YEAR

Course	
Journalism 90	1
Journalism 106	4
Journalism 107	3
Journalism 108	4
Journalism 127	3
Political Science 80	5
Psychology 5	4
Sociology	4
Political Science	5
Electives	12
	45

Minimum quarter hours required for degree—199.

Curriculum Leading to the Degree of A.B. in Journalism
Journalism-Advertising Sequence

FRESHMAN YEAR

Course	Qtr. Hrs.
Journalism 2	3
English 1a, 1b, 1c	9
Modern Foreign Language	10
Psychology	9
History 5a, 5b or Political Science	10
Physical Education	3
Military Science (Men)	6
Orientation A	1
	51

SOPHOMORE YEAR

Course	Qtr Hrs.
Journalism 20a, 20b	10
English 3a, 3b	10
Modern Foreign Language	8
Physical or Biological Science	8
Art 30a, 30b, 30c, or Art 61a, 61b	6–8
Physical Education	3
Military Science (Men)	6
Hygiene	2
	53–55

JUNIOR YEAR

Course	
Journalism 103	4
Journalism 104a, 104b	10
Journalism 105	3
Journalism 123a, 123b	6
Economics 1	5
Psychology 5	4
Art 29	3
Electives	11
	46

SENIOR YEAR

Course	
Journalism 90	1
Journalism 106	4
Journalism 108	4
Journalism 115	4
Economics 140	4
Electives	29
	46

Minimum quarter hours required for degree—199.

LIBRARY SCIENCE

The University provides professional education for library work through the Department of Library Science of the College of Arts and Sciences. A one-year curriculum of 45 quarter hours

is offered. Students who complete this curriculum during the senior year of college receive the A.B. or B.S. degree. Students who complete the work following a bachelor's degree receive the professional degree of Bachelor of Science in Library Science. The amount of residence required is three-quarters beyond the bachelor's degree. It is also possible for students to fulfill the Southern Association requirements for teacher-librarians by electing specified library science courses. Students in the College of Education who are working for the degree of A.B. in Education may elect Library Science as a second major.

The Department of Library Science is accredited by the Southern Association of Colleges and Secondary Schools and by the American Library Association.

Professional courses on the senior or graduate level are designed primarily for majors in the department, but non-majors may be admitted on approval of the Head of the Department.

General courses available to non-majors include an orientation course in the use of the library for students in the lower division, and two semi-professional courses for prospective teachers. An independent work course is available to students who want to study some phase of library science related to their major, field of concentration, or thesis.

Courses recommended for teacher-librarians: High schools with enrollment of 100 or less, 9 quarter hours in courses 126 and 150b; High schools with enrollment of 100 to 200 students, 18 quarter hours in courses 126, 128, 129a, 133a and 150b.

Requirements for the Degree of Bachelor of Science In Library Science

Prerequisites: A Bachelor's degree from an approved college or university. Undergraduate preparation should emphasize academic rather than professional courses, with emphasis on literature, languages, and the social sciences. Previous experience in library work and facility in the use of the typewriter are considered assets. **Required courses:** The full professional curriculum of 45 quarter hours.

MILITARY SCIENCE AND THE RESERVE OFFICERS' TRAINING CORPS

The University of Kentucky maintains a 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 of 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. Each student is required to make a deposit of $10.00 with the Comptroller of the University to cover the cost of any lost or damaged articles. If no clothing is lost or damaged, the entire sum is refunded to the student when he completes the course or leaves school.

Course. The military Department offers a two years' basic 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. The Advanced Course has been discontinued for the duration of the present emergency.

MUSIC

The aim of this department is to develop a high standard of professional and 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. 69.

(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 27 quarter hours in **Applied Music** may be offered to count toward the A.B. or B.S. degree in other colleges.

University Bands

The University bands furnish an opportunity for improvement for those who have previously played the various band instruments. **The marching band** performs during the football and basketball season and furnishes music for the R. O. T. C. spring parades. The **concert band** appears for concerts on campus and in the community. 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 open to all students interested in choral activity, subject to eligibility rulings, and admitted by permission of the director. 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 a selected group of 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 and third quarters 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.

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 Little Symphony Orchestra** is an organization composed of selected advanced instrumentalists interested in the study and performance of works primarily written 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.

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.

Special Fees

Special fees for applied music, practice room, organ rental, and instrumental methods classes are listed on page 18.

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.

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 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 a detailed knowledge of one particular instrument.

FRESHMAN YEAR

	Qtr. Hrs.
Orientation A and B	2
English 1a,b,c (Composition)	9
Foreign Language	10
Foreign Lang. or Social Sci.	4–5
Hygiene 9 (Hygiene for Teachers)	3
Mil. Sci. ROTC Band 3a,b,c	6
Music 33a-b (Elementary Theory)	12
Music 39a-b-c or 40a-b-c	*
Music a-b-c (Applied)	9
Phy. Ed. (8, 19, 24 suggested)	3
Men	58–59
Women	52–53

SOPHOMORE YEAR

	Qtr. Hrs.
Elective (Women)	6
English 3a-b (Eng. Literature)	10
Foreign Lang. or Social Sci.	4–5
Psychology 1 (Intro. to Psy.)	6
Mil. Sci. (ROTC Band, 4a, b, c)	6
Music 34a-b (Adv. Theory)	10
Music 39d-e-f or 40d-e-f	*
Music d-e-f (Applied)	9
Physical Ed. (20, 27 suggested)	3
Total	47–48

JUNIOR YEAR	
Education 16 (Ed. Psychology)	5
Education 105 (Sec. Ed.)	4
Education C44 (Elem. Ed.)	4
Music 4a-b (Pub. School Music)	6
Music 7 (Strings)—8 (Brasses)	6
Music 9 (Woodwinds)	3
Music 26 (High School Methods)	3
Music 12a-b (Counterpoint)	6
Music 39g-h-i or 40g-h-i	---
Music 114a (Inst. and Cond.)	3
Total	49

SENIOR YEAR	
Education 101 (School Org.)	5
Education 117a-b-c (Pract. Tch.)	9
Music 13a-b (Form and Analysis)	6
Music 19a-b (History of Music)	8
Music 42 (Seminar)	1
†Music 115 (Choral Conducting)	3
Music 39j-k-l or 40j-k-l	---
Psychology 7 (Child)	4
Men	42
Women	48

Minimum for degree: 197 quarter hours.

* 1 quarter hour allowed for orchestra and glee clubs when taken at the same time.

† Physical Education course numbers suggested NOT compulsory. Electives suggested, Music 110, 111a-b, or 115.

For special fees for applied music see p. 18.

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 "Individual Physical Education" (P. E. 25a-f).

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 opportunity 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.

For teacher certification requirements, check with Dean of Arts and Sciences College and Head of Department of Physical Education.

A uniform is required for all students. The cost of this ranges from $2.50 to $5.00, according to the quality of suit purchased. A locker fee of $1.50 per quarter is charged each student and includes clean towel service, soap, and locker rental. Each student must furnish a padlock for his locker.

POLITICAL SCIENCE

The courses and facilities of the Department of Political Science are designed to serve a number of purposes. Among these purposes are: (1) To provide orientation and training in the problems of citizenship for undergraduate students. (2) Provide further special background for students majoring in journalism or preparing for admission to professional courses such as law. (3) To train social science teachers for the primary and secondary school. (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.

Public Service Courses

Government service is offering an ever widening field of opportunity for the college trained men and women. 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 have 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.

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, and 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, and 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, and 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, and 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, and 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, and Community Organization.

PSYCHOLOGY

For information regarding the Industrial Psychological, Child Guidance, Mental Hygiene, and Educational Testing Services, see "Special Services of the University," (University catalog).

Pre-Educational students are advised to take Individual Differences, Child Psychology, Psychology of Learning, Practice in Testing: Intelligence Tests, Practice in Testing: Personality Tests, and Mental Hygiene.

Pre-Medical students are advised to take Individual Differences, Practice in Testing: Personality Tests, Experimental Psychology: The Senses, Animal Behavior, Mental Hygiene, and Abnormal Psychology.

Pre-Law students are advised to take Applied Psychology, Social Psychology and Abnormal Psychology.

Students of Industrial Personnel are advised to take Individual Differences, Practice in Testing: Intelligence Tests, Practice in Testing: Personality Tests, Practice in Testing: Trade Tests, Industrial Psychology, Employment Psychology, Psychology of Learning, and Mental Hygiene.

Students interested in Social Work are advised to take Individual Differences, Practice in Testing: Intelligence Tests, Mental Hygiene, and Abnormal Psychology.

Students interested in going into Mental Hygiene work are advised to take Individual Differences, Mental Hygiene, Abnormal Psychology, Psychology of Learning, Employment Psychology, Practice in Testing: Intelligence Tests, and Practice in Testing: Personality Tests.

Students interested in Commerce are advised to take Individual Differences, Psychology of Advertising, and Selling, Practice in Testing: Trade Tests, Industrial Psychology, and Employment Psychology.

Industrial Psychology

The College offers a two years' course beginning with the junior year designed to prepare students for personnel work in industry and governmental agencies. The curriculum consists of courses in the Departments of Psychology, Sociology, Political Science, Economics, and Hygiene as well as offering opportunities for practical experience through the cooperation of local offices and industries. This course leads to the A.B. degree with a major in psychology.

SOCIAL WORK

The Department of Social Work offers three types of preparation: orientation courses for students interested in social welfare; a pre-professional major for those preparing for or desiring placement in social services on the junior professional level for graduate training; and a graduate curriculum for those wishing further professional training in the field of social 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 are offered in the College of Agriculture and Home Economics. Students who complete this work ordinarily 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 45 quarter hours.

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.

DEGREES AND CURRICULA IN THE COLLEGE OF AGRICULTURE AND HOME ECONOMICS

Thomas Poe Cooper, B.S., D.Sc., LL. D., Dean
Levi Jackson Horlacher, B.S., M.S., Assistant Dean

INTRODUCTORY STATEMENT

Organization. Agriculture was one of the first subjects taught in the Agricultural and Mechanical College of Kentucky. The Department of Botany, Horticulture and Agriculture was organized in 1878 and existed as such until 1908 when it became the College of Agriculture. The Department of Domestic Economy was organized in 1906 and in 1918 it became the Department of Home Economics in the College of Agriculture. In 1941 the name of the College of Agriculture was changed to College of Agriculture and Home Economics. The first class in agriculture was graduated in 1898 and the first class in home economics was graduated in 1913.

The principal function of the College is resident teaching in agriculture and home economics and for this purpose it is organized into eight departments: Agricultural Entomology, Agronomy (including Farm Engineering), Animal Industry, Animal Pathology, Farm Economics (including Rural Sociology), Home Economics, Horticulture (including Forestry), and Markets and Rural Finance. Associated with the College are the Agricultural Experiment Station and the Agricultural Extension Division.

Aims and Purposes. The College of Agriculture and Home Economics was established for a particular purpose that makes it different from almost any other type of college. Legislative acts establishing the College, the Experiment Station, and the Extension Service make the College primarily an institution to serve rural people. The College is successfully aiding rural people and has developed an educational procedure that fits students to assume responsibilities in various aspects of rural, as well as urban life. The aim of the College is to educate young men and women for careers as useful citizens and leaders in all phases of agriculture and home economics. This may be on the farm, in the home, in extension work, in teaching, in nutrition, in research, in commercial work, or in any other work that requires knowledge of the place that agriculture and home economics have in the world today. The outside field of opportunity is as wide as the relation of agriculture and home economics to industry, commerce, and finance. In all of those fields of endeavor new places and new uses are being found for well educated, able men and women.

Faculty. To accomplish these aims and purposes the College of Agriculture and Home Economics has built up a scholarly, able, and forward-looking faculty. The men and women who compose the faculty are selected because they are good teachers, have a thorough knowledge of their chosen fields, and have the ability to guide and inspire others in their study of these fields. Some devote part of their time to the Experiment Station or to the Extension Division. Many have national and international reputations in their respective fields. Some have brought distinction to themselves and the College by their discoveries and investigations, others through books that they have written, and still others by their work on state and national problems of many kinds. The privilege of associating with and studying under men and women who know how to teach and who have the ability to contribute to the solution of current problems in agriculture and home economics is an important point to consider in the selection of a college.

Buildings and Equipment. Adequate, modern buildings and equipment are essential for good instruction in agriculture and home economics. In addition to the general University buildings the College of Agriculture and Home Economics has several buildings devoted specifically to the work of the various departments. The Agriculture Building houses the office of the dean, the department of horticulture with its student laboratories, class rooms for farm economics and marketing, and laboratories for the use of students in crops, soils, and agricultural entomology. The Dairy Building has modern, well-equipped laboratories for work in dairy manufacturing, incubation, and genetics. The Stock Judging Pavilion has classrooms and an arena for livestock judging and other phases of work in animal industry. The Agricultural Engineering Building has shops and laboratories for tractors, stationary engines, and machinery, as well as a commodious drawing room. The Animal Pathology Building, has classrooms and laboratories of the most modern type for the study of animal diseases. The Tobacco Laboratory is well equipped for the study of plant diseases. The Experiment Station Building contains no classrooms, but offices of many of the members of the staff are located there.

The Home Economics Building was open and ready for occupancy in September, 1940. As conditions permit it is being equipped with laboratory fixtures of the latest design. In addition to offices and classrooms the building now contains laboratories for foods, clothing, nutrition, dietetics, experimental cookery, costume design, and interior decoration. A home management house and a nursery school are located near the Home Economics Building. The cafeterias of the University School and the Student Union are used as laboratories for students in institution economics.

On the farm are modern barns for all kinds of livestock. Representatives of several of the more important types and breeds

are kept for instructional purposes. These include Shorthorn, Hereford, Aberdeen, Angus, Jersey, Holstein, and Brown Swiss cattle; Southdown, Cheviot, and Hampshire sheep; Duroc Jersey and Hampshire hogs; mules; farm horses; and several varieties of poultry. Near Lexington are many large livestock and horse farms and the owners very generously permit the use of their animals for instruction.

Admission. Requirements for admission to the College of Agriculture and Home Economics, as a freshman, or with advanced standing, or as a special student, are the same as those outlined on the preceding pages for admission to the University. However, a student who enters with less than two units in mathematics is required to make up the deficiency; a student in agriculture who enters with no units in physics is required to take a year of college physics.

REQUIREMENTS FOR GRADUATION IN AGRICULTURE

To receive the degree of Bachelor of Science in Agriculture, a student must complete 210 quarter hours and 210 points. These hours are classified as follows

Prescribed subjects, non-agriculture	62 hours
Prescribed subjects, agriculture	47 hours
Electives required in agriculture	46 hours
Free electives	55 hours
Total	210 hours

The twelve-quarter plan of study enables a student to obtain a broad education and pursue some specialization in a chosen field of agriculture. Courses of instruction in technical agriculture are given by the departments of agricultural entomology, agronomy (including farm engineering), animal industry, animal pathology, farm economics (including rural sociology), horticulture (including forestry) and markets and rural finance. In addition students in agriculture receive instruction in English, economics, bacteriology, botany, chemistry, geology, physics, and zoology. A liberal system of electives permits students to choose courses in the social and physical sciences, education, and other fields of interest.

To complete the requirements for a degree in twelve quarters a student must earn an average of 17½ hours per quarter. A schedule of 19 hours is the maximum load for a student whose standing the preceding quarter was between 1 and 2. A student who makes a standing of 2 or more in any quarter may carry up to 22 hours the following quarter. Special permission by the Dean is required for a schedule of more than 22 hours. A student whose record enables him to carry 21 hours per quarter can earn a degree in ten quarters.

Farm experience or practical experience in the option selected by the student is required for graduation. Transfer students are

required to take a minimum of 52 quarter hours of agriculture in the University.

Certain courses are required of all students who are candidates for the degree in agriculture; others are elective. The courses required for graduation are listed in the order they would normally be taken by a student entering in the fall quarter and desiring a general course. Since all required courses cannot be offered in all quarters, some modification of order of courses will be neccessary for students entering in the winter, spring, or summer quarters. It is recognized that many freshmen may know when they enter or may decide during the first year what options they desire to select. The curriculum as outlined is sufficiently flexible to permit any change in order of courses that may be necessary to permit preparation for these options.

Curriculum Leading to the Degree of Bachelor of Science in Agriculture

FIRST QUARTER	Qtr. Hrs.	SECOND QUARTER	Qtr. Hrs.
A. I. 21—Farm Dairying	4	A. I. 1—Farm Livestock Prod.	5
Agr. 1—Elem. Farm Crops	5	Eng. 1b—English Composition	3
Eng. 1a—English Comp.	3	Bot. 1a—General Botany	4
M. S. 1a—First Year Basic	2	M. S. 1b—First Year Basic	2
Phys. Ed.	1	Phys. Ed.	1
Orien. A—Fresh. Orientation	1	Electives	3
	*16		18

* An entering student with high test scores is permitted to carry an additional course.

THIRD QUARTER		FOURTH QUARTER	
A. I. 41—Farm Poultry Prod.	4	Chem. 1a—Genl. Chem.	5
Eng. 1c—English Composition	3	Econ. 1—Principles	5
Bot. 1b—General Botany	4	Fm. Eng. 1—Mechanics of the Farmstead	4
Hort. 1—Genl. Horticulture	3	M. S. 6a—Second Year Basic	2
M. S. 1c—First Year Basic	2	Electives	2
Phys. Ed.	1		
	17		18

FIFTH QUARTER		*SIXTH QUARTER	
Chem. 1b—Genl. Chem.	5	Geol. 3—Elem. Geology	4
Fm. Ec. 1—Agr. Economics	5	Agron. 10—Soils	4
Bact. 52 Prin. of Bacteriology	6	A. I. 81—Prin. of Animal Nutrition	4
M. S. 6b—Second Year Basic	2	M. S. 6c—Second Year Basic	2
		Electives	3
	18		17

* Before the end of the sixth quarter each student must select an option and an adviser. See the following pages for information about the options.

SEVENTH TO TWELFTH QUARTERS	Qtr. Hrs.
Fm. Econ. 110—Farm Management (Seventh quarter)	4
M. & R. F. 100—Marketing (Seventh quarter)	4
Zool. 25—General Animal Biology (Ninth quarter)	5
*Option requirements	21
*Electives (Enough agriculture must be included to make the total number of hours in agriculture at least 93)	71
Hours required for graduation—210	105

* The student confers with his adviser concerning courses to be scheduled.

WHEN TO ENTER

A student may begin his college work at the opening of any quarter or at the middle of the summer quarter.

FACULTY ADVISERS

Upon entering the College each freshman chooses or is assigned to a faculty adviser. It is the function of the faculty member to serve as a friendly, personal counselor to the student, to help the student choose elective courses to be scheduled during the first six quarters, and to help the student select an option.

During or before the last quarter of the sophomore year, (this may be done as early as the first quarter) each student must select one of the ten options, which should be followed during the remainder of the college course. When the option is selected, each student must also choose a faculty adviser. If a departmental option is selected, the adviser must be in that department. A transfer student who has completed six or more quarters must select an option and an adviser when he first registers in the College.

OPTIONS

An option consists of a minimum of 21 quarter hours in courses not open to freshmen. These 21 quarter hours and the schedule for each quarter must be approved by the student's adviser. The curriculum as outlined is primarily for the student desiring a general course. In preparation for a definite option a student may postpone certain required courses or make substitutions for them if these changes are recommended by the adviser and are approved in accordance with the University rules.

GENERAL AGRICULTURE

This option is for students who want a general course in agriculture. Ninety-three hours of agriculture are required for graduation. Electives may be selected from any department in the University provided the necessary prerequisites are satisfied.

HIGH SCHOOL TEACHING

This option is designed primarily to prepare students to teach agriculture in public high schools under the provisions of the Federal Vocational Education Acts. The University of Kentucky has been designated as the institution in the state to educate teachers for this work. Students who select this option must have had farm experience. In addition to the required courses in the curriculum, students must take farm structural engineering, farm shop, electives in all departments of agriculture, and 21 hours in education, as prescribed in the state plans for vocational education. Three of these courses in education (practice teaching, educational

psychology, and evening school and part-time courses) make up a complete schedule for one quarter.

The following electives are suggested: Agricultural Entomology 1, 102; Agronomy 11, 23, 104, 105, 115; Animal Industry 2, 3, 23, 61, 101, 103, 104, 105, 106, 121, 141; Animal Pathology 102; Farm Economics 101, 115; Farm Engineering 104, 105; Forestry 1; Horticulture 10, 103, 110, 120; Markets and Rural Finance 101, 110, 140; Rural Sociology 101; English 6; Journalism 10a.

AGRICULTURAL ENTOMOLOGY

Courses in the Agricultural Entomology option deal with beneficial and injurious insects of the farm and home, including insects of fruit and garden crops, farm crop insects, animal parasites, insects of the home and flower garden, and bees. Students preparing for Agricultural Entomology should elect courses in zoology, botany, and chemistry and should take the first course in agricultural entomology before the junior year.

AGRONOMY

Courses in agronomy comprise those in forage crops, cereals, tobacco, plant breeding, plant diseases, soil classification, soil properties, soil management, and agronomy experimentation. Students selecting this option should elect certain courses in chemistry, botany, genetics, mathematics, physics, and geology, depending upon their individual field of interest.

ANIMAL HUSBANDRY

The animal husbandry option offers courses in animal breeding, feeding, selection, and management, as well as specialized courses in meats and the production of sheep, swine, beef, cattle, horses, and mules. Students selecting this option should complete livestock judging and genetics before the junior year. It is recommended that general chemistry be completed during the first four quarters and that it be followed by organic chemistry. It is also desirable that general zoology be completed as soon as possible. Further work in zoology, physiology, and animal pathology is recommended.

DAIRYING

Courses in dairying place special emphasis on technical subject matter as a supplement to practical experience in either dairy production or dairy manufacturing. In this option instruction is offered in breeding, selection, feeding, and management of dairy cattle. Specialized instruction is offered in dairy bacteriology and its relationship to processing market milk, butter, cheese, and ice cream. Students choosing this option should complete the required

courses in general chemistry and bacteriology as early as possible and should take organic chemistry.

POULTRY

The poultry option offers instruction in breeding, culling and selection, incubation and brooding, rearing of chicks, hatchery management, feeding, disease control, marketing poultry products, and game bird propagation. Students selecting this option should have basic training in chemistry, zoology, embryology, and parasitology.

FARM ECONOMICS AND RURAL SOCIOLOGY

Courses in this option deal with the economics of production in agriculture, including farm costs and accounting; farm management and the factors underlying profitable farming; land economics, land values and land appraisal; the human and community problems of farm life, population, rural leadership, social attitudes, and social change. Students selecting this option should have a broad training in social and physical sciences, and should elect such courses as history, political science, philosophy, psychology, mathematics, statistics, and accounting.

MARKETS AND RURAL FINANCE

The option in markets and rural finance provides training in the economics of agricultural markets, prices, cooperation, and finance, and includes the relation of agriculture to government. Students who choose this option are advised to elect courses freely in the fields of political science, commerce, history, philosophy, and sociology.

HORTICULTURE

The option in horticulture provides training in vegetable growing, fruit growing, and ornamental horticulture. Students electing ornamental horticulture will take the curriculum as outlined in that field. Students desiring to take work in the production of vegetable and fruit crops should elect courses in soils, entomology, plant pathology, botany, and chemistry.

Curriculum in Ornamental Horticulture

FIRST QUARTER	Qtr. Hrs.	SECOND QUARTER	Qtr. Hrs.
Art 61a—Drawing	4	Art 61b—Drawing	4
Bot. 1a—Genl. Botany	4	Bot. 1b—Genl. Botany	4
Eng. 1a—English Composition	3	Eng. 1b—English Composition	3
Eng. Dr. 17a—Mech. Drawing	2	Math. 3—Trigonometry	5
M. S. 1a—First Year Basic	2	or	
Orien. A—Fresh. Orientation	1	Math. 17—Algebra	5
Phys. Ed.	1	M. S. 1b—First Year Basic	2
		Phys. Ed.	1
	17		19

THIRD QUARTER	Qtr. Hrs.
Agr. Ent. 1—Agr. Entomology	4
Bot. 1c—Genl. Botany	4
Eng. 1c—English Composition	3
M. S. 1c—First Year Basic	2
Phys. Ed.	1
Elective	3
	17

FOURTH QUARTER	Qtr. Hrs.
Art 63a—Drawing	4
Chem. 1a—Genl. Chem.	5
Agr. 23—Plant Pathology	6
M. S. 6a—Second Year Basic	2
	17

FIFTH QUARTER	
Chem. 1b—General Chem.	5
Econ. 1—Principles of Economics	5
Hort. 1—General Horticulture	3
M. S. 6b—Second Year Basic	2
Electives	3
	18

SIXTH QUARTER	
Agron. 10—Soils	4
Geol. 3—Elem. Geology	4
M. S. 6c—Second Yr. Basic	2
Electives	8
	18

SEVENTH TO TWELFTH QUARTERS	Qtr. Hrs.
Fm. Eng. 105—Eng. Practices in Soil Management	4
Agr. Ent. 103—Economic Entomology	4
Agron. 115—Soil Management	4
Hort. 120—Landscape Gardening	3
Hort. 121—Adv. Landscape Gardening	3
Hort. 122—Floriculture	2
Hort. 123—Plant Propagation	3
Hort 124a-b—Special Problems in Ornamental Horticulture	6
Electives	77
	106

Hours required for graduation—210.

PRE-AGRICULTURAL ENGINEERING

Students wishing to prepare for the field of agricultural engineering may enter the College and take courses which will satisfy the requirements of the first year in most colleges offering the agricultural engineering degree. The prospective student should, upon entering the College, confer with the professor of agricultural engineering regarding courses that will be accepted by the college at which he plans to obtain a degree.

PRE-FORESTRY WORK

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 student should plan his schedule to meet the requirements of the forestry school he has decided to enter.

PRE-VETERINARY WORK

Students planning to bcome 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 and Home Economics 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.

TWO-YEAR PROGRAM IN PRACTICAL AGRICULTURE

For high school graduates who want to study agriculture in college as preparation for farming, but whose time is limited, a four-quarter program is provided. In this program subjects may be elected to provide general or special information concerning any phase of agriculture. The following regulations govern this program:

1. Students must meet the University entrance requirements as either regular or special students.
2. Students may enter at the beginning of any quarter.
3. When students register for the first time, they must state that they plan to follow this program.
4. All subjects in agriculture are open to students in this program.
5. Students may transfer to the degree curriculum at any time. However, courses in the 100 series, or courses taken without the designated prerequisites may not be counted toward a degree unless validated by special examination.
6. Upon the completion of 6 quarters of residence (these need not be consecutive) and 105 quarter hours, the student will be awarded a certificate in agriculture.

SHORT COURSES

Short courses ranging in duration from one day to one week are held for those interested in special phases of agriculture. The short courses planned for 1945 include courses for dairy fieldmen, machinery repairmen, sheep shearers, and poultrymen.

FARM AND HOME CONVENTION

The annual Farm and Home Convention is held on the campus of the University of Kentucky during the last week in January. Thousands of farm men and women from all over the state find these programs to be interesting and inspirational and of great value to them in planning and carrying on their work. A special bulletin giving the program is issued in December.

GRADUATE WORK

All departments offer graduate work leading to the degree of Master of Science in Agriculture. The degree of Doctor of Philosophy may be earned in agricultural economics and rural sociology.

REQUIREMENTS FOR GRADUATION IN HOME ECONOMICS

To receive the degree of Bachelor of Science in Home Economics, a student must complete 205 quarter hours and 205 points. These hours are classified as follows:

Prescribed subjects, non-home economics	75 hours
Prescribed subjects, home economics	69 hours
Electives required in home economics	18 hours
Free electives	43 hours
Total	205 hours

Home economics in the University of Kentucky has for its purpose the education of students for home and family living to the end that worthy home membership may be a dynamic factor in social progress. The curriculum includes courses in art, physical sciences, and social sciences as a basis for a liberal education. Application of these to the problems of foods and nutrition; clothing, textiles, and related art; institution economics; child development; and home management, constitute the specific home economics courses. The program is sufficiently flexible to meet the requirement for both the bachelor of science and the master of science degrees in home economics with special emphasis on the following fields of interest:

1. General home economics as a preparation for effective home making.
2. Home economics education as preparation for teaching

in high schools, colleges, and emergency schools and projects.

3. Home economics as preparation for careers in the commercial field.
4. Institution economics for hospital dietetics, management of food units in hotels, restaurants, schools, and other institutions.
5. Extension home economics in federal and state programs.

To complete the requirements for a degree in twelve quarters a student must earn 17 or more hours per quarter. A schedule of 19 hours is the maximum load for a student whose standing the preceding quarter was between 1 and 2. A student who makes a standing of 2 or more in any quarter may carry up to 21 hours the following quarter. Special permission of the Dean is required for a schedule of more than 21 hours. Transfer students are required to take a minimum of 25 quarter hours of home economics in the University.

Certain courses are required of all students who are candidates for the degree in home economics; others are elective. The courses required for graduation are listed in the order they would normally be scheduled by a student entering in the fall quarter and desiring a general course. Since all required courses cannot be offered in all quarters, some change in the order of courses will be necessary for students entering in the winter, spring, or summer quarters.

Curriculum Leading to the Degree of Bachelor of Science in Home Economics

FIRST QUARTER	Qtr. Hrs.
Art. 30a—Introd. to Art	2
Eng. 1a—English Composition	3
H. E. 5—Foods	5
H. E. 25—Textiles	3
Ph. Ed.	1
Orien. A—Fresh. Orientation	1
Electives	2
	17

SECOND QUARTER	Qtr. Hrs.
Art 30b—Introd. to Art	2
Eng. 1b—English Composition	3
H. E. 6—Foods	4
H. E. 26—Costume Design	4
Ph. Ed.	1
Electives	3
	17

THIRD QUARTER	
Art 30c—Introd. to Art	2
Eng. 1c—English Composition	3
H. E. 27—Clothing	5
Psy. 1—Elem. Psychology	6
H. E. 71—Survey of Home Econ.	1
Ph. Ed.	1
	18

FOURTH QUARTER	
Chem. 1a—Genl. Chem.	5
H. E. 51—Health of the Family	4
Phys. 51—Introd. to Physics	3
Psy. 7—Child Psychology	4
Ph. Ed.	1
	17

FIFTH QUARTER	Qtr. Hrs.
Chem. 1b—General Chem.	5
Econ. 1—Principles of Economics	5
Eng. 6—Essen. of Speech	3
or	
Journ. 10a—Survey of Journalism	4
Phys. 52—Introd. to Physics	3
Ph. Ed.	1
	17 or 18

SIXTH QUARTER	Qtr. Hrs.
Chem. 37—Organic Chemistry	6
A. & P 3—Physiology	5
H. E. 61—Housing	4
Ph. Ed.	1
	16

SEVENTH QUARTER	
Eng. 3a or 3b—English Literature	5
H. E. 11—Food and Nutrition	6
H. E. 72—Prof. Problems	1
H. E. 129—Interior Decoration	4
	16

EIGHTH QUARTER	
H. E. 102—Dietetics	6
H. E.. 161—Consumer Problems	4
H. E. 162a—Home Management Lec.	4
Electives	3
	17

NINTH QUARTER	
H. E. 152—Child Care and Develop.	5
H. E. 162b—Home Management Lab.	5
Electives	7
	17

TENTH QUARTER	
H. E. 127—Adv. Clothing	4
R. S. 101—Rural Sociology	3
or	
Soc. 1—Prin. of Sociol.	5
Electives	10
	17 or 19

ELEVENTH QUARTER	
Electives	17
	17

TWELFTH QUARTER	
Electives	17
	17

Hours required for graduation—205

FACULTY ADVISERS

When a freshman first registers in the Department of Home Economics, she is assigned a faculty adviser. It is the function of the faculty member to serve as a friendly, personal counselor to the student, to help the student choose elective courses to be scheduled during the first six quarters, and to help the student select an option.

During or before the last quarter of the sophomore year each student must select one of the five options offered by the College, which should be followed during the remainder of the college course. When the option is selected, each student must also choose a faculty adviser. A transfer student who has completed six or more quarters must select an option and an adviser when she first registers in the College.

OPTIONS

Requirements for the five options follow. In preparation for a definite option a student may postpone certain required courses listed in the curriculum or make substitutions for them if these changes are recommended by the adviser and are approved in accordance with the University rules

GENERAL HOME ECONOMICS

This option is for students who want a general course in home economics. Eighty-seven hours of home economics are required for graduation. Electives may be selected from any department in the University provided the necessary prerequisites are satisfied.

HIGH SCHOOL TEACHING

This option is designed primarily to prepare students to teach home economics in public high schools under the provisions of the Federal Vocational Education Acts. The University of Kentucky has been designated as one of the institutions in the state to educate teachers for this work. In addition to the required courses in the curriculum students must take general bacteriology and 21 hours in education, as prescribed in the state plans for vocational education. The first course in education is the technique of teaching home economics. Following this course are three other courses (practice teaching, school organization, and problems in vocational education) which make up a complete schedule for one quarter. Students completing this option are entitled to a state certificate to teach home economics on a vocational basis in Kentucky.

INSTITUTION ECONOMICS AND DIETETICS

Eligibility for hospital training in dietetics requires a bachelor of science degree in home economics. In addition to the required courses in the general curriculum the following courses must be included: Institution marketing, institution foods, institution organization and administration, experimental cookery, advanced nutrition, and four hours in education. It is recommended that additional advanced courses be taken in institution economics and nutrition. The student is guided by the adviser in the choice of courses. For the management of food units in schools, colleges, restaurants, and hotels the following electives are recommended: Institution marketing, institution foods, institution organization and administration, institution management, public school nutrition, and experimental cookery. Students planning to elect the option in institution economics and dietetics should take general chemistry in the first two quarters and organic chemistry in the third quarter.

CLOTHING, TEXTILES, AND RELATED ART

The option prepares students for work in commercial fields dealing with clothing, textiles, and costume design. The following electives are recommended in sequence: Drawing, 2 quarters; Modern Europe to the French Revolution, 2 quarters; advanced costume design; advanced clothing problems; and special problems in home economics.

CHILD DEVELOPMENT AND FAMILY LIVING

This option prepares students for future specialization in the field of child development and family living. The following electives are suggested: Advanced child development, family living, mental measurements, practice in testing, experimental child study, the family, and child welfare. Through affiliation with the Merrill-Palmer School, Detroit, Michigan, two senior students with special interest in child development may be selected each quarter to attend that school. This privilege gives increased opportunity to study certain aspects of child life.

OTHER PROGRAMS

Students interested in combining social work, journalism, or retailing with home economics should choose electives from appropriate departments.

GRADUATE WORK

The Department of Home Economics offers graduate work 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
Daniel Voiers Terrell, C. E., Assistant 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 professional careers in their chosen branches of engineering.

This college endeavors to keep before its students the latest developments in engineering. The physical plant comprises 70,000 square feet of offices, class rooms, study halls, drafting rooms, library and modern laboratories. Much new equipment has been provided, which places the College in a position to carry on extensive research work in the various branches of engineering.

Admission. Admission to the freshman class in the College of Engineering is limited to students rated in the upper three-fourths on the University placement tests.

In addition to meeting the general requirements for admission to the University, the high school credits presented by the applicant shall include one unit in Plane Geometry, one-half unit in Solid Geometry and one and one-half units in Algebra. If the student lacks only the half unit in Solid Geometry, he may be admitted, but this subject will be added to the requirements of the freshman year.

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—General Civil Engineering
- Option 2—Civil Engineering with Special Emphasis on Sanitary Engineering
- Option 3—Civil Engineering with Special Emphasis on Architectural Engineering

Bachelor of Science in Electrical Engineering
- Option 1—Electrical Engineering with Special Emphasis on Communication Engineering
- Option 2—Electrical Engineering with Special Emphasis on Electrical Power Engineering

Bachelor of Science in Mechanical Engineering
- Option 1—General Mechanical Engineering
- Option 2—Mechanical Engineering with Special Emphasis on Aeronautical Engineering

Bachelor of Science in Metallurgical Engineering
Bachelor of Science in Mining Engineering

Options and Electives. In some of the curricula certain options or electives are allowed. 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 210 quarter hours with a standing of 1.0, exclusive of the basic work in Military Science and Physical Education.

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

Graduate Degrees. The College of Engineering offers graduate work 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 their vacant periods, not to exceed ten hours a week, in supervised study. During this time they will be under the general supervision of a faculty member.

Three-Year Curricula. In order to meet the urgent demand of governmental agencies and industries for trained engineers in our war effort, outlines which follow are arranged so that the requirements for any one of the engineering degrees may be completed in three years of four quarters each. Students who wish to follow this program are advised to start at the beginning of the Summer Quarter and plan to attend college continuously for twelve quarters.

OUTLINE OF THE FIRST TWO QUARTERS OF ALL ENGINEERING CURRICULA

In order that all students in the College of Engineering may have an opportunity to take some fundamental training before deciding definitely what courses they desire to pursue, the first two quarters of all engineering curricula are made uniform.

FIRST QUARTER	Qtr. Hrs.	SECOND QUARTER	Qtr. Hrs.
Assem. 1a—Introduction to Engineering	1	Assem. 1b—Introduction to Engineering	0
Chem. 2a—General Chemistry	5	Chem. 2b—General Chemistry	5
English 1a—English Composition	3	English 1b—English Composition	3
Eng. Draw. 1a—Elementary Engineering Drawing	3	Eng. Draw. 1b—Descriptive Geometry	3
Math. 17—College Algebra	5	Math. 3—Plane Trigonometry	5
Military Science 1a	2	Military Science 1b	2
Physical Education	1	Physical Education	1
	20		19

Curricula Leading to the Degree of Bachelor of Science in Civil Engineering

For First Two Quarters, see above.

THIRD QUARTER	Qtr. Hrs.	FOURTH QUARTER	Qtr. Hrs.
Assem. 2—Engineering Problems	1	Assem. 3a—Class Society	0
Math. 19—Plane and Solid Analytic Geometry	5	Math. 20a—Differential Calculus	5
English 1c—English Composition	3	Physics 3a—General College Physics	6
*Psychology 1—Introduction to Psychology	6	Civ. Eng. 18—Mapping and Topographic Drawing	3
Military Science 1c	2	Civ. Eng. 12—Plane Surveying	4
Physical Education	1	Military Science 6a	2
	18		20
FIFTH QUARTER		**SIXTH QUARTER**	
Assem. 3b—Class Society	0	Assem. 3c—Class Society	0
Civ. Eng. 16a—Route Surveying	4	*Geography 1a—Elements of Geography	4
Physics 3b—General College Physics	6	Applied Mech. 3—Statics	5
*English 30—Business English	3	Physics 3c—General College Physics	6
Math. 20b—Integral Calculus	5	Military Science 6c	2
Military Science 6b	2		
	20		17

* With the approval of the Head of the Department, other subjects may be substituted for these.

OPTION ONE

General Civil Engineering

SEVENTH QUARTER
(Summer)

FIRST HALF Surveying Camp	Qtr. Hrs.
Civ. Eng. 15—General Surveying	5
Civ. Eng. 16b—Route Surveying	4
Civ. Eng. 17—Hydrographic Surveying	1
SECOND HALF	
Assem. 4c Class Society	0
Elec. Eng. 101—Fundamentals of Electrical Machinery	4
Civ. Eng. 120—Hydraulics	3
Civ. Eng. 123—Hydraulics Lab.	2
	19

EIGHTH QUARTER	Qtr. Hrs.
Assem. 4a—Class Society	0
Applied Mech. 100—Strength of Materials	5
Civ. Eng. 49—Railroad Const. and Maintenance	3
Civ. Eng. 171a—Theory of Structures	5
*History 30—Rise of American Nationality	5
Civ. Eng. 174—Graphic Solutions	3
	21

NINTH QUARTER	
Assem. 4b—Class Society	0
Civ. Eng. 107—Soil Mechanics	5
Civ. Eng. 171b—Theory of Structures	3
Applied Mech. 4—Dynamics	3
Civ. Eng. 114—Advanced Surveying	4
Civ. Eng. 31—Highway Location, Const. and Maintenance	3
Civ. Eng. 81—Testing Materials	2
	20

TENTH QUARTER	
Assem. 5a—Class Society	0
Civ. Eng. 173a—Steel Structures	4
*Political Science 15—Problems of Citizenship	5
Geology 12a—Elementary Geology for Engineers	4
Civ. Eng. 23—Seminar	1
Civ. Eng. 110a—Reinforced Concrete	6
	20

ELEVENTH QUARTER	
Assem. 5b—Class Society	0
*Commerce 1—Principles of Economics	5
Geology 12b—Elementary Geology for Engineers	3
San. Eng. 151—Water Supply and Waterworks	3
San. Eng. 152—Sewers and Sewage Disposal	3
San. Eng. 153—Design of Waterworks and Sewers	2
Mech. Eng. 103—Elements of Heat-Power Engineering	3
	19

TWELFTH QUARTER	
Assem. 5c—Class Society	0
Civ. Eng. 173b—Steel Structures	3
*Arch. Eng. 7—Building Construction	1
Civ. Eng. 32—Streets and Pavements	3
Civ. Eng. 37—Highway Materials	2
Civ. Eng. 110b—Reinforced Concrete	5
*Engr. Adm. 102—Engineering Administration	4
*San. Eng. 156—Water and Sewer Plant Operation	2
	20

* With the approval of the Head of the Department, other subjects may be substituted for these.

OPTION TWO

Sanitary Engineering

First Six Quarters Same as Option One.

SEVENTH QUARTER
(Summer)

FIRST HALF Surveying Camp	Qtr. Hrs.
Civ. Eng. 15—General Surveying	5
Civ. Eng. 16b—Route Surveying	4
Civ. Eng. 17—Hydrographic Surveying	1
SECOND HALF	
Assem. 4c—Class Society	0
Civ. Eng.—120—Hydraulics	3
Civ. Eng. 123—Hydraulics Laboratory	2
Elec. Eng. 101—Fundamentals of Electrical Machinery	4
	19

EIGHTH QUARTER	Qtr. Hrs.
Assem. 4a—Class Society	0
Applied Mech. 100—Strength of Materials	5
Bacteriology 52—Principles of Bacteriology	6
Chem. 20—Qualitative Analysis	6
Civ. Eng. 81—Testing Materials	2
Civ. Eng. 23—Seminar	1
	20

NINTH QUARTER	
Assem. 4b—Class Society	0
Bacteriology 57a—Bacteriology of Water and Sewage	4
Chem. 21a—Quantitative Analysis	4
Civ. Eng. 171a—Theory of Structures	5
Bacteriology 104—Applied Bacteriology	3
*Political Science 15—Problems of Citizenship	5
	21

TENTH QUARTER	
Assem. 5a—Class Society	0
Civ. Eng. 174—Graphic Solutions	3
*Eugr. Adm. 102—Engineering Administration	4
*Mech. Eng. 103—Elements of Heat-Power Engineering	3
Civ. Eng. 110a—Reinforced Concrete	6
*Geology 12a—Elementary Geology	4
	20

ELEVENTH QUARTER	
Assem. 5b—Class Society	0
Zoology 1a—General Zoology	4
*History 30—Rise of American Nationality	5
San. Eng. 151—Water Supply and Waterworks	3
San. Eng. 152—Sewers and Sewage Disposal	3
San. Eng. 158—Sanitary Engineering Design	4
	19

TWELFTH QUARTER	
Assem. 5c—Class Society	0
Zoology 1b—General Zoology	4
Chem. 30a—Organic Chemistry	5
Hygiene 100a—Public Health	4
San. Eng. 156—Water and Sewer Plant Operation	2
San. Eng. 182—Sanitation	3
	18

* With the approval of the Head of the Department, other subjects may be substituted for these.

OPTION THREE

Architectural Engineering

First Six Quarters Same as Option One.

SEVENTH QUARTER
(Summer)

FIRST HALF Surveying Camp	Qtr. Hrs.
Civ. Eng. 15—General Surveying	5
Civ. Eng. 16b—Route Surveying	4
Civ. Eng. 17—Hydrographic Surveying	1
SECOND HALF	
Art 30c—Introduction to Art	2
Assem. 4c—Class Society	0
*Civ. Eng. 120—Hydraulics	3
*Civ. Eng. 123—Hydraulics Laboratory	2
Elec. Eng. 101—Fundamentals of Electrical Machinery	4
	21

EIGHTH QUARTER	Qtr. Hrs.
Assem. 5a—Class Society	0
Applied Mech. 100—Strength of Materials	5
Art 30a—Introduction to Art	2
Civ. Eng. 171a—Theory of Structures	5
Civ. Eng. 174—Graphic Solutions	3
*History 30—Rise of American Nationality	5
	20

NINTH QUARTER	
Assem. 4b—Class Society	0
Arch. Eng. 1—Architectural Rendering	3
Art 30b—Introduction to Art	2
Civ. Eng. 81—Testing Materials	2
Civ. Eng. 173a—Steel Structures	4
*Art 61a—Elementary Drawing	4
*Civ. Eng. 107—Soil Mechanics	5
	20

TENTH QUARTER	
Assem. 5a—Class Society	0
Civ. Eng. 23—Seminar	1
Arch. Eng. 3—Sanitation, Acoustics, Fire Prevention	4
Arch. Eng. 4a—Architectural Design	4
Mech. Eng. 103—Elements of Heat-Power Engineering	3
*Art 61b—Elementary Drawing	4
*Geology 12a—Elementary Geology	4
	20

ELEVENTH QUARTER	
Assem. 5b—Class Society	0
Arch. Eng. 4b—Architectural Design	4
Civ. Eng. 110a—Reinforced Concrete	6
*Mech. Eng. 116—Elementary Heating, Ventil. and Air Conditioning	4
*Mech. Eng. 110—Heating and Ventilating Design	2
*Political Science 15—Problems of Citizenship	5
	21

TWELFTH QUARTER	
Assem. 5c—Class Society	0
Arch. Eng. 5—Building Equipment	8
Arch. Eng. 7—Building Construction	1
*Eng. Adm. 102—Engineering Administration	4
*Elec. Eng. 136—Illumination Engineering	4
*Arch. Eng. 6—Independent Problems	6
	18

* With the approval of the Head of the Department, other subjects may be substituted for these.

Curricula Leading to the Degree of Bachelor of Science in Electrical Engineering

For First Two Quarters, see page 90.

THIRD QUARTER	Qtr. Hrs.
Assem. 2—Engineering Problems	1
*Pol. Sci. 15—Problems of Citizenship	5
Eng. Draw. 18—Advanced Engineering Drawing	3
Math. 19—Plane and Solid Analytic Geometry	5
English 1c—English Composition	3
Military Science 1c	2
Physical Education	1
	20

FOURTH QUARTER	Qtr. Hrs.
Assem. 3a—Class Society	0
Civ. Eng. 12—Plane Surveying	4
Met. Eng. 26—Engineering Metallurgy	3
Math. 20a—Differential Calculus	5
Physics 3a—General College Physics	6
Military Science 6a	2
	20

FIFTH QUARTER	
Assem. 3b—Class Society	0
Applied Mech. 2—Mechanisms	3
Elec. Eng. 11—Electrical Laboratory	1
Math. 20b—Integral Calculus	5
Mech. Eng. 15a—Manufacturing Processes	3
Physics 3b—General College Physics	6
Military Science 6b	2
	20

SIXTH QUARTER	
Assem. 3c—Class Society	0
Elec. Eng. 21—Principles of Electrical Engineering	6
Physics 3c—General College Physics	6
*Psychology 1—Introduction to Psychology	6
Military Science 6c	2
	20

SEVENTH QUARTER	
Assem. 4a—Class Society	0
Applied Mech. 3—Statics	5
Elec. Eng. 115—D. C. Machinery	4
Elec. Eng. 114—A. C. Circuits	6
*R. L. 5a—Elementary Spanish	5
	20

EIGHTH QUARTER	
Assem. 4b—Class Society	0
Applied Mech. 100—Strength of Materials	5
Elec. Eng. 116 A.C. Machinery	5
Elec. Eng. 110a—Electrical Laboratory	1
Math. 105a—Differential Equations	3
*R. L. 5b—Elementary Spanish	5
	19

NINTH QUARTER	Qtr. Hrs.
Assem. 4c—Class Society	0
Elec. Eng. 107—Electrical Control	4
Elec. Eng. 161—Radio Engineering	4
Elec. Eng. 110b—Electrical Laboratory	1
Elec. Eng. 120—Electric Circuit Analysis	3
Mech. Eng. 104a—Engineering Thermodynamics	4
Civ. Eng. 81—Testing Materials	2
	18

* With the approval of the Head of the Department, other subjects may be substituted for these.

OPTION ONE

Communication Engineering

TENTH QUARTER	Qtr. Hrs.
Assem. 5a—Class Society	0
Applied Mech. 4—Dynamics	3
*History 30—Rise of American Nationality	5
Mech. Eng. 112a—Mechanical Laboratory	2
Elec. Eng. 135—Electrical Networks	4
Elec. Eng. 151a—Seminar	1
†Elec. Eng. 162—Radio Engineering—Receivers	4
	19

ELEVENTH QUARTER	Qtr. Hrs.
Assem. 5b—Class Society	0
*English 30—Business English	3
*Mech. Eng. 108—Internal Combustion Engines	5
Elec. Eng. 151b—Seminar	1
Elec. Eng. 108—Electronic Controls	4
†Elec. Eng. 163—Radio Engineering—Transmitters	4
	17

TWELFTH QUARTER	
Assem. 5c—Class Society	0
Civ. Eng. 120—Hydraulics	3
Civ. Eng. 123—Hydraulics Laboratory	2
Eng. Adm. 102—Engineering Administration	4
Elec. Eng. 151c—Seminar	1
†Elec. Eng. 164—Radio Engineering—High Frequency Phenomena	5
†Elec. Eng. 165—Radio Engineering—Fundamentals of Electric Waves	3
	18

* With the approval of the Head of the Department, other subjects may be substituted for these.

† Other Electrical Engineering courses or related courses in Physics may be substituted with the approval of the Department.

OPTION TWO

Electrical Power Engineering

First Nine Quarters Same as Option One.

TENTH QUARTER	Qtr. Hrs.
Assem. 5a—Class Society	0
Applied Mech. 4—Dynamics	3
*History 30—Rise of American Nationality	5
Mech. Eng. 112a—Mechanical Laboratory	2
Elec. Eng. 135—Electrical Networks	4
Elec. Eng. 151a—Seminar	1
Mech. Eng. 112a—Mechanical Laboratory	2
Elec. Eng. 135—Electrical Networks	4
Elec. Eng. 151a—Seminar	1
†Elec. Eng. 124a-b—Electrical Design	4
	19

ELEVENTH QUARTER	Qtr. Hrs.
Assem. 5b—Class Society	0
*English 30—Business English	3
*Mech. Eng. 108—Internal Combustion Engines	5
Elec. Eng. 151b—Seminar	1
Elec. Eng. 108—Electronic Controls	4
†Elec. Eng. 136—Illumination Engineering	4
	17

TWELFTH QUARTER	
Assem. 5c—Class Society	0
Civ. Eng. 120—Hydraulics	3
Civ. Eng. 123—Hydraulics Laboratory	2
Eng. Adm. 102—Engineering Administration	4
Elec. Eng. 151c—Seminar	1
†Elec. Eng. 117—Advanced A. C. Machinery	5
†Elec. Eng. 123—Electrical Equipment Problems	3
	18

* With the approval of the Head of the Department, other subjects may be substituted for these.

† Other Electrical Engineering courses or related courses in **Physics** may be substituted with the approval of the Department.

Curricula Leading to the Degree of Bachelor of Science in Mechanical Engineering

For First Two Quarters, see page 90.

THIRD QUARTER	Qtr. Hrs.
Assem. 2—Engineering Problems	1
English 1c—English Composition	3
*Psychology 1—Introduction to Psychology	6
Math. 19—Plane and Solid Analytic Geometry	5
Eng. Draw. 18—Advanced Engineering Drawing	3
Military Science 1c	2
Physical Education	1
	21

FOURTH QUARTER	Qtr. Hrs.
Assem. 3a—Class Society	0
*Journalism 21—Etymology	4
Civ. Eng. 12—Plane Surveying	4
Math. 20a—Differential Calculus	5
Physics 3a—General College Physics	6
Military Science 6a	2
	21

FIFTH QUARTER	
Assem. 3b—Class Society	0
Applied Mech. 2—Mechanisms	3
Eng. Draw. 12—Graphical Computation	3
Math. 20b—Integral Calculus	5
Physics 3b—General College Physics	6
Military Science 6b	2
	19

SIXTH QUARTER	
Assem. 3c—Class Society	0
Applied Mech. 3—Statics	5
Math. C105a—Differential Equations	3
*History 30—Rise of American Nationality	5
Physics 3c—General College Physics	6
Military Science 6c	2
	21

SEVENTH QUARTER	
Assem. 4a—Class Society	0
Applied Mech. 100—Strength of Materials	5
Civ. Eng. 81—Testing Materials	2
Applied Mech. 4—Dynamics	3
Mech. Eng. 104a—Engineering Thermodynamics	4
Met. Eng. 37—Adaptive Metallurgy for Engineers	5
	19

EIGHTH QUARTER	
Assem. 4b—Class Society	0
Applied Mech. 106—Advanced Strength of Materials	5
Elec. Eng. 105—D. C. Circuits and Machinery	6
Mech. Eng. 15a—Manufacturing Processes	3
Mech. Eng. 104b—Engineering Thermodynamics	4
Mech. Eng. 111—Engineering Reports	3
	21

* With the approval of the Head of the Department, other subjects may be substituted for these.

OPTION ONE

General Mechanical Engineering

NINTH QUARTER	Qtr. Hrs.
Assem. 4c—Class Society	0
Elec. Eng. 106—A. C. Circuits and Machinery	6
Mech. Eng. 100a—Machine Design	4
Mech. Eng. 15b—Manufacturing Processes	3
Mech. Eng. 104c—Engineering Thermodynamics—Heat Power	4
Mech. Eng. 112a—Mechanical Laboratory	2
	19

TENTH QUARTER	Qtr. Hrs.
Assem. 5a—Class Society	0
Mech. Eng. 105—Steam Power Plant Equipment	4
Mech. Eng. 100b—Machine Design	4
Mech. Eng. 107—Fluid Mechanics	4
*Mech. Eng. 114—Heating, Ventilating, Refrigeration and Air Conditioning	5
Mech. Eng. 112b—Mechanical Laboratory	2
Mech. Eng. 122a—Seminar	1
	20

ELEVENTH QUARTER	Qtr. Hrs.
Assem. 5b—Class Society	0
Applied Mech. 107—Mechanical Vibrations	5
*Mech. Eng. 108—Internal Combustion Engines	5
Mech. Eng. 101—Mechanical Engineering Design	4
English 30—Business English	3
Mech. Eng. 113a—Mechanical Laboratory	2
Mech. Eng. 122b—Seminar	1
	20

TWELFTH QUARTER	Qtr. Hrs.
Assem. 5c—Class Society	0
Eng. Adm. 102—Engineering Administration	4
Mech. Eng. 120—Mechanical Engineering Problems	4
Mech. Eng. 113b—Mechanical Laboratory	2
*Pol. Sci. 15—Problems of Citizenship	5
*Commerce 1—Principles of Economics	5
	20

* With the approval of the Head of the Department, other subjects may be substituted for these.

OPTION TWO

Aeronautical Engineering

First Eight Quarters Same as Option One.

NINTH QUARTER	Qtr. Hrs.
Assem. 4c—Class Society	0
Elec. Eng. 106—A. C. Circuits and Machinery	6
Applied Mech. 107—Mechanical Vibrations	5
Mech. Eng. 16—Airplane Shop Practice	3
Mech. Eng. 123—Airplane Instruments and Controls	4
Mech. Eng. 112a—Mechanical Laboratory	2
	20

TENTH QUARTER	Qtr. Hrs.
Assem. 5a—Class Society	0
English 30—Business English	3
Mech. Eng. 100a—Machine Design	4
Mech. Eng. 107—Fluid Mechanics	4
Mech. Eng. 128—Airplane Structures	5
Mech. Eng. 112b—Mechanical Laboratory	2
Mech. Eng. 122a—Seminar	1
	19

ELEVENTH QUARTER	Qtr. Hrs.
Assem. 5b—Class Society	0
Mech. Eng. 124—Airplane Design	4
Eng. Adm. 102—Engineering Administration	4
Mech. Eng. 108—Internal Combustion Engines	5
Mech. Eng. 100b—Machine Design	4
Mech. Eng. 125a—Aeronautical Laboratory	2
Mech. Eng. 122b—Seminar	1
	20

TWELFTH QUARTER	Qtr. Hrs.
Assem. 5c—Class Society	0
Mech. Eng. 126—Aerodynamics of the Airplane	4
Mech. Eng. 127—Airplane Problems	4
*Pol. Sci. 15—Problems of Citizenship	5
Mech. Eng. 125b—Aeronautical Laboratory	2
*Commerce 1—Principles of Economics	5
	20

* With the approval of the Head of the Department, other subjects may be substituted for these.

Curriculum Leading to the Degree of Bachelor of Science in Metallurgical Engineering

For First Two Quarters, see page 90.

THIRD QUARTER	Qtr. Hrs.
Assem. 2—Engineering Problems	1
Chem. 20—Qualitative Analysis	6
English 1c—English Composition	3
Math. 19—Plane and Solid Analytic Geometry	5
Met. Eng. 27—General Metallurgy	3
Military Science 1c	2
Physical Education	1
	21

FOURTH QUARTER	Qtr. Hrs.
Assem. 3a—Class Society	0
Chem. 21a—Quantitative Analysis	4
Math. 20a—Differential Calculus	5
Physics 3a—General College Physics	6
Met. Eng. 29—Metallurgy of the Ferrous Metals	4
Military Science 6a	2
	21

FIFTH QUARTER	
Assem. 3b—Class Society	0
Chem. 21b—Quantitative Analysis	4
Math. 20b—Integral Calculus	5
Physics 3b—General College Physics	6
Met. Eng. 128—Metallurgy of Non-Ferrous Metals	4
Military Science 6b	2
	21

SIXTH QUARTER	
Assem. 3c—Class Society	0
Chem. 140a—Physical Chemistry	5
Physics 3c—General College Physics	6
Commerce 1—Principles of Economics	5
Military Science 6c	2
	18

SEVENTH QUARTER	
Assem. 4a—Class Society	0
Chem. 140b—Physical Chemistry	5
Eng. Draw. 115—Photography	4
Physics 117—Theory of Heat	3
Elec. Eng. 101—Fundamentals of Electrical Machinery	4
*German 1a—Elementary German	5
	21

EIGHTH QUARTER	
Assem. 4b—Class Society	0
Applied Mech. 3—Statics	5
Chem. 140c—Physical Chemistry	5
Physics 123a—Principles of Thermodynamics	3
Elec. Eng. 102—Electrical Machinery	3
*German 1b—Elementary German	5
	21

NINTH QUARTER	
Assem. 4c—Class Society	0
Applied Mech. 100—Strength of Materials	5
Physics 119—Principles of X-Rays	4
Physics 123b—Principles of Thermodynamics	3
Met. Eng. 140—The Science of Metals	4
*German 2a—Intermediate German	4
	20

TENTH QUARTER	
Assem. 5a—Class Society	0
Met. Eng. 142a—Heat Treatment	3
Met. Eng. 143a—Physics of Metals	4
Met. Eng. 166a—Extractive Metallurgy	5
Met. Eng. 175a—Seminar	1
Commerce 109a—Business Law	4
*German 2b—Intermediate German	4
	21

* With the approval of the Head of the Department, other subjects may be substituted for these.

ELEVENTH QUARTER	Qtr. Hrs.
Assem. 5b—Class Society	0
Met. Eng. 132a—Metallurgical Calculations	4
Met. Eng. 142b—Heat Treatment	3
Met. Eng. 143b—Physics of Metals	4
Met. Eng. 166b—Extractive Metallurgy	4
Met. Eng. 175b—Seminar	1
Commerce 109b—Business Law	4
	20

TWELFTH QUARTER	Qtr. Hrs.
Assem. 5c—Class Society	0
Met. Eng. 121—Fuel and Metallurgical Laboratory	2
Met. Eng. 132b—Metallurgical Calculations	4
Met. Eng. 141—Alloy Steels	3
Met. Eng. 150—Industrial Mineral Preparation and Uses	3
Met. Eng. 167—Extractive Metallurgy Plant Practice	2
Met. Eng. 175c—Seminar	1
Eng. Adm. 102—Engineering Administration	4
	19

Curriculum Leading to the Degree of Bachelor of Science in Mining Engineering

For First Two Quarters, see page 90.

THIRD QUARTER	Qtr. Hrs.
Assem. 2—Engineering Problems	1
Chem. 20—Qualitative Analysis	6
English 1c—English Composition	3
Math. 19—Plane and Solid Analytic Geometry	5
Met. Eng. 26—Engineering Metallurgy	3
Military Science 1c	2
Physical Education	1
	21

FOURTH QUARTER	Qtr. Hrs.
Assem. 3a—Class Society	0
Chem. 21a—Quantitative Analysis	4
Civ. Eng. 12—Plane Surveying	4
Math. 20a—Differential Calculus	5
Physics 3a—General College Physics	6
Military Science 6a	2
	21

FIFTH QUARTER	
Assem. 3b—Class Society	0
Chem. 21b—Quantitative Analysis	4
Math. 20b—Integral Calculus	5
Physics 3b—General College Physics	6
Geology 12a—Elementary Geology for Engineers	4
Military Science 6b	2
	21

SIXTH QUARTER	
Assem. 3c—Class Society	0
Applied Mech. 3—Statics	5
Geology 12b—Elementary Geology for Engineers	3
Geology 123a—Mineralogy	4
Physics 3c—General College Physics	6
Military Science 6c	2
	20

SEVENTH QUARTER	
Assem. 4a—Class Society	0
Applied Mech. 100—Strength of Materials	5
Geology 123b—Mineralogy	4
Civ. Eng. 171a—Theory of Structures	5
*R. L. 5a—Elementary Spauish	5
	19

EIGHTH QUARTER	
Assem. 4b—Class Society	0
Civ. Eng. 174—Graphic Solutions	3
Commerce 1—Principles of Economics	5
*R. L. 5b—Elementary Spanish	5
Min. Eng. 126a—Development of Mines	5
	18

* With the approval of the Head of the Department, other subjects may be substituted for these.

NINTH QUARTER (Summer)	
FIRST HALF	Qtr. Hrs.
Surveying Camp	
Min.. Eng. 160—Mine Surveying and Field Practice in Mining Engineering	10
SECOND HALF	
Assem. 4c—Class Society	0
Civ. Eng. 81—Testing Materials	2
Civ. Eng. 120—Hydraulics	3
Civ. Eng. 123—Hydraulics Laboratory	2
Min. Eng. 126b—Development of Mines	3
	20

TENTH QUARTER	Qtr. Hrs.
Assem. 5a—Class Society	0
Elec. Eng. 101—Fundamentals of Electrical Machinery	4
Mech. Eng. 103—Elements of Heat-Power Engineering	3
Met. Eng. 166a—Extractive Metallurgy	5
Min. Eng. 129a—Mine Ventilation and Drainage	4
Min. Eng. 175a—Seminar	1
*R. L. 7a—Intermediate Spanish	4
	21

ELEVENTH QUARTER	
Assem. 5b—Class Society	0
Elec. Eng. 102—Electrical Machinery	3
Met. Eng. 166b—Extractive Metallurgy	4
Min. Eng. 127a—Mining Underground	4
Min. Eng. 129b—Mine Ventilation and Drainage	3
Min. Eng. 175b—Seminar	1
*R. L. 7b—Intermediate Spanish	4
	19

TWELFTH QUARTER	
Assem. 5c—Class Society	0
Met. Eng. 150—Industrial Mineral Preparation and Uses	3
Met. Eng. 167—Extractive Metallurgy Plant Practice	2
Min. Eng. 127b—Mining Underground	3
Min. Eng. 128—Mining at the Surface	3
Min. Eng. 130—Mine Administration	5
Min. Eng. 175c—Seminar	1
Commerce 102—Labor Problems	4
	21

* With the approval of the Head of the Department, other subjects may be substituted for these.

DEGREES AND CURRICULA IN 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 high standing in the Law School. The members of the staff are required to prepare four case notes each year.

THE LIBRARY

The law library contains some thirty thousand volumes, and includes all the published reports of the courts of last resort and the side bar reports of every state in the Union, and also the reports of the District of Columbia and Alaska; the United States Supreme Court Reports; the Federal Reports, together with the Reports of the Court of Claims, the Interstate Commerce Commission, the

Federal Trade Commission, the N.L.R.B., the S.E.C. and the F.C.C. and the Court of Customs and Patent Appeals; the Philippine Reports; the Hawaiian Reports; the Puerto Rican Reports; the Canal Zone Reports; the English Reports; the Canadian Reports; the Irish Reports; a set of the Law Journal and a set of the Law Times and Times Law, and Journal of Comparative Legislation. Some four thousand treatises and textbooks are found in the library as well as the English Statutes, the Canadian Statutes, the Federal Statutes and the Statutes of all of the American states. Likewise, it contains the American digests, including American Digest System, the digests of Kentucky and New York, a number of English digests including the English and Empire Digest, and the entire Shepard's Citator. Effort is now being made as well to extend the library facilities in the direction of treatises on jurisprudence, Roman Law, and the history and philosophy of the law and legislation. The Library receives regularly some one hundred legal periodicals, 12 of which are from foreign countries, and has in excess of 1,500 bound volumes of legal periodicals.

One of the most valuable recent additions to the Library is a large number of volumes and periodicals from the private library of Professor Albert Kocourek, formerly of the Northwestern University Law School. This library is largely in the field of legal history, legal philosophy, and Roman law.

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 all give at least some time to research.

THE LAW BUILDING

In order to accommodate the growing student body and the increasing library, an adequate 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 nine offices, three 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 office for the Kentucky Law Journal. The building occupies a 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 (ninety quarter hours). 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 nine quarter hours in English. See statement, p. 17. The credits obtained in the two years of college work that are required must be completed in residence and 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.

CURRICULA LEADING TO THE DEGREES OF A. B. AND B. S. IN COMMERCE COMBINED WITH THE LL. B. CURRICULUM

Inasmuch as the requirements of the law school now call for a total of at least 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 curricula 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 having completed 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

Property I	Property II
Pleading I	Pleading II
Contracts I	Contracts II
Torts I	Torts II
Domestic Relations	Agency
Crimes I	Crimes II
Legal Bibliography	Torts III
	Contracts III

SECOND YEAR SUBJECTS

Property III	Public Utilities
Trial Procedure	Insurance
Constitutional Law I	Constitutional Law II
Equity I	Equity II
Restitution	Municipal Corporation
Negotiable Instruments	Evidence
	Wills

THIRD YEAR SUBJECTS

Corporations I	Property IV
Credit Transactions	Conflict of Laws
Administrative Law	Legislation
Practice Court	Creditors Rights
Taxation	Sales
Trusts I	Problems of Research
Problems of Research	Defense of Legislation and Military Law
Corporations II	Trusts II

SUMMER QUARTER—ACCELERATED PROGRAM FOR THE PERIOD OF THE WAR

For the period of the war, the University of Kentucky Law School, under authority granted by the Association of American Law Schools and the University Faculty, has adopted the following rule relative to the credit a student may receive upon leaving for military services: Any law student may receive full credit if he remains in school through 8 weeks of the quarter and half credit if he remains in school through 6 weeks of the quarter, provided: (1) he has a scholastic point standing of 1.0 in all his previous law work, if any; (2) he furnishes satisfactory evidence that he has entered the service within a reasonable time after he withdrew from school; and (3) his class grades for the quarter as determined by attendance, recitations, and tests, if any, are satisfactory. For one term of the summer quarter the minimum attendance requirements shall be 4 and 3 weeks, respectively. With the adoption of the quarter system by the University in June, 1942, it became possible for law students to complete the three year course in two years, if they remain in residence during the summer quarters.

A limited number of courses in law are offered in the summer quarter of the University. The work in these courses is the same in kind and extent as that given in the same course in the fall, winter, and spring quarters, and credit obtained in the summer quarter is counted towards a degree.

The following subjects will be offered for the 1945 Summer Quarter:

First Term: Damages, Oil and Gas, Landlord and Tenant, Credit Transactions (Mortgages).

Second Term: Partnership, Labor Law, Statutory Interpretation, Domestic Relations.

DEGREES AND CURRICULA IN THE COLLEGE OF EDUCATION

William Septimus Taylor, M.S., Ph. D., LL. D., Dean

The College of Education was established by the University to provide for the education of teachers, administrators, and other school personnel. The curricula of the College give each student an opportunity to equip himself for the kind of educational work in which he is interested.

Students in elementary education have observation and student teaching in the University Elementary School and in the schools of nearby communities. Students in secondary education have observation and student teaching in the University High School and in other secondary schools. Each student is given an opportunity to learn accepted and desirable methods and to develop skill in teaching.

Through the cooperation of the Fayette County Board of Education, students preparing to teach agriculture and home economics have an opportunity to observe and do their student teaching in the high schools near Lexington which offer vocational agriculture and vocational home economics. Students in both agriculture and home economics teach under skilled supervisors in their respective fields.

The University offers a fifth year of teacher education through internships in public school systems in or near Lexington. These internships are open to graduate students who have strong scholarship records and who have had successful student teaching experience. By earning 18 quarter hours in the summer quarter before the internship begins in September, 9 quarter hours in each quarter during the internship, and 9 quarter hours in the summer quarter following the internship the student can meet the requirements for the degree of Master of Arts in Education.

TEACHERS' CERTIFICATES

The University of Kentucky offers curricula for all certificates issued by the State Department of Education on the basis of four years of college education. The College of Education offers programs to prepare teachers of elementary, junior high, and senior high schools; attendance officers, helping teachers, supervisors, teacher-librarians, elementary principals, high school principals,

city superintendents; county superintendents, and critic teachers; and other administrative, supervisory, and instructional personnel of schools.

ADMISSION

To be admitted to the College of Education a freshman must rank in the upper three-fourths on the University placement tests. He must possess a healthy body, free from major physical defects. A student transferring to the College of Education from another college on the campus or from another institution must have a standing of at least 1.0 (an average of C on all previous college work). This standing must be maintained if the student is to remain in the College of Education. Any student in another college of the University who wishes to enroll in professional educational courses must have a standing of 1.0.

If a student is deficient in any subject matter area or in any basic skill essential to success in teaching, he is required to make up the deficiency through extra work.

A student is not permitted to enroll for student teaching unless he is classified as a senior or graduate student and can meet the departmental requirements for student teaching. A thorough physical examination by University physicians is required at some time in the quarter prior to the student's enrollment in student teaching. Candidates for student teaching are requested to file their applications the quarter before they plan to do their student teaching.

REQUIREMENTS FOR GRADUATION

The College of Education grants the Bachelor of Arts in Education degree to students who major in education and select their group work from agriculture, art, biological sciences, business education, English, foreign languages, home economics, library science, mathematics, music, physical education, physical sciences, or social sciences. Students who complete the curriculum for elementary teachers are also eligible for the degree of Bachelor of Arts in Education.

ELEMENTARY EDUCATION

A student who majors in elementary education must complete a total of 192 quarter hours, with a standing of 1.0, to be graduated.

1. **General Requirements:**
   a. **English,** 16 quarter hours, including Oral and Written Composition and History of English Literature
   b. **Science,** 16 quarter hours, including Heredity
   c. **Social Sciences,** 36 quarter hours, including United States History, Kentucky History, Problems of Citizenship,

Principles of Sociology, Principles of Geography, and Economic Problems

d. **Fine Arts,** 12 quarter hours, including Public School Art, Elective in Art, and Public School Music

e. **Psychology,** 10 quarter hours

f. **Elementary Nutrition,** 4 quarter hours

g. **Health and Physical Education,** 11 quarter hours

h. **Orientation,** 1 quarter hour

2. **Professional Preparation.** Fifty quarter hours, including Fundamentals of Elementary Education, Children's Literature, Teaching Arithmetic, Tests and Measurements, Teaching Science, Teaching Reading, Industrial Arts, and Student Teaching

3. **Electives.** Thirty-six quarter hours

SECONDARY EDUCATION

A student who majors in secondary education must complete a total of 192 quarter hours, with a standing of 1.0, to be graduated.

1. **General Requirements.** English, 16 quarter hours; Psychology, 8; Physical Education, 3; Orientation, 1; Military Science, 12.

2. **Teaching Fields.** Two majors of 36 quarter hours each, or one major of 36 quarter hours and two minors of 24 quarter hours each, or 72 quarter hours in an area of concentration.

3. **Professional Preparation.*** Education 35, Introduction to Education, 4 quarter hours; Education 122, Tests and Measurements, 5; Education 101, School Organization, 5; Education 105, Fundamentals of Secondary Education, 4; and Student Teaching, 9.

4. **Core Curriculum.** At least 40 quarter hours must be submitted from the following fields: Fine Arts; Foreign Languages; Health, Physical Education, and Safety; Mathematics; Philosophy and Psychology; Sciences; Social Sciences; and Vocational Subjects. Candidates may present either three or four fields, with at least 8 quarter hours in each field. Fields selected under the core curriculum must be other than those presented as major and minor fields.

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* 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 and b, Teaching Secretarial Subjects and Accounting, for Education 101 and Education 105

VOCATIONAL EDUCATION

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

Students who complete the work for a bachelor's degree in agriculture and who present 21 quarter hours in education as prescribed in the state plan for vocational education will be entitled to a state certificate to teach vocational agriculture in the public schools of Kentucky.

Home Economics. The Federal Vocational Education Act of 1917 also provides for the education of teachers of vocational home economics in schools below college level. The University of Kentucky has been designated as the state institution to educate white teachers for this work.

Students who complete the work for a bachelor's degree in home economics and who present 21 quarter hours in education as prescribed in the state plan for vocational education will be entitled to a state certificate to teach vocational home economics in the public schools in Kentucky.

Industry. The Federal Vocational Education Act of 1917 also 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 state institution responsible for the education of teachers for this work.

Distributive Occupations. The George-Deen Act of 1936 provides for the education of teachers of distributive occupations. The University of Kentucky has been designated as the state institution responsible for this service.

EDUCATIONAL ADMINISTRATION AND SUPERVISION

The College of Education provides courses for graduate students who plan to become educational administrators and supervisors. An individual curriculum is worked out for each student by a committee from the faculty.

Students who wish to qualify for certificates in Administration and Supervision issued by the State Department of Education are required to take Education 202, Local School Administration, and Education 225a, and b, Supervision of Instruction. Students

who wish to qualify for the Attendance Officer's Certificate are required to take Education 198, The Administration of Pupil Personnel.

GRADUATE CURRICULA LEADING TO THE MASTER'S DEGREE

Each student's graduate curriculum must be a well-rounded program of courses related to the student's major interest and approved by his committee. In cases of deficient preparation the committee, with the approval of the Dean, determines prerequisite undergraduate courses to be taken.

The following committees have been designated to guide graduate students in their work towards the master's degree in education.

Curriculum Pursued	Committee
Administration	Seay, Meece, Duncan, and Ligon
Agricultural Education	Hammonds, Woods, and Armstrong
Business Education	Lawrence, and Taylor
Critic Teaching	Ginger, Duncan, and Taylor
Elementary Education	Duncan, Ginger, Haines, and Seay
Higher Education	Ross and Taylor
Home Economics Education	Parker, Spickard, and Sneed
Industrial Education	Hankins, Baker, and Crumpton
Music Education	Capurso, Lampert, Lewis, and Ross
Physical Education	Hackensmith and Taylor
Secondary Education	Ligon, Ross, Seay, and Clifton

A graduate student in education presenting a study involving research in one of the following fields has, in addition to the committee named for his major, the adviser designated opposite the field:

Measurement and Statistical Procedure	Ross
Curriculum Studies	Seay
History of Education	Taylor
Visual Education	Clifton

In planning his program for the master's degree the student should keep the following general requirements in mind:

1. A minimum of 36 quarter hours of graduate work must be completed and a thesis must be presented.
2. At least 18 quarter hours of graduate work must be in education.
3. At least 18 quarter hours of graduate work must be in courses numbered 200 or higher.

4. At least 36 weeks must be spent in residence at the University of Kentucky as a graduate student.
5. At least one-half of the credit and residence requirements must be met while the student is in full residence at the University of Kentucky.
6. The total number of credits presented in education, undergraduate and graduate, must be at least 45 quarter hours.
7. A standing of 2.0 (an average of B) must be made on all graduate work

By permission of the Dean of the Graduate School and the Dean of the College of Education, a student may present additional credits in lieu of a thesis. For these students the following requirements apply:

1. A minimum of 54 quarter hours of graduate work must be completed.
2. At least 27 quarter hours of graduate work must be in education.
3. At least 27 quarter hours must be in courses numbered 200 or higher.
4. At least 48 weeks must be spent in residence at the University of Kentucky as a graduate student.
5. At least one-half of the credit and residence requirements must be met while the student is in full residence at the University of Kentucky.
6. The total number of credits presented in education, undergraduate and graduate, must be at least 45 quarter hours.
7. A standing of 2.0 (an average of B) must be made on all graduate work.

THE DOCTORAL DEGREE

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

DEGREES AND CURRICULA IN THE COLLEGE OF COMMERCE

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

INTRODUCTORY STATEMENT

Organization. The College of Commerce of the University of Kentucky grew out of the Department of Economics and Sociology established in the College of Arts and Sciences in 1918. In the spring of 1925 the work of this department was divided and all courses in economics and business administration were placed in the College of Commerce. The College occupies White Hall.

Bureau of Business Research. In the spring of 1928 the Board of Trustees authorized the organization and maintenance of a Bureau of Business Research. The chief purposes of this Bureau are to provide definite contacts with practical economic problems in order to vitalize the subject matter dealt with in the classroom and to serve the interests of business and of the state upon invitation.

Aims and Purposes of the College. 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.

Admission. To be admitted to the freshman class of the College of Commerce students must meet the general admission requirements of the University and in addition must rank in the upper three-fourths on the University placement tests.

Students transferring to the College of Commerce from another college on the Campus or from another institution must have a scholastic standing of "C" or better.

Student Organization and Placement Activities. The Commerce Employment Association is a militant organization and operates under the supervision of a permanent secretary who is a member of the faculty. Its chief purpose is to find employment for graduates and better positions for alumni. It has been very successful.

The College Chamber of Commerce provides opportunity for planning and discussing community programs and in addition sponsors social activities. Its meetings are open to all Commerce students. The Accounting Club and the Secretarial Club foster the discussion of problems related to the fields of accounting and secretarial practice and also sponsor social activities.

Beta Gamma Sigma, a national honorary scholarship fraternity, was organized at the University of Kentucky in the spring of 1928. Only students who have attained a high scholarship standing are eligible for membership.

The Chi Omega Sorority Prize. A prize of $25.00 is awarded annually to the sophomore girl making the best grade in economics for the entire year.

REQUIREMENTS FOR GRADUATION

The degree of Bachelor of Science in Commerce is conferred upon students who meet the requirements of any one of the curricula offered by the College of Commerce. The minimum number of quarter hours required for graduation is 192, except under the Industrial-Administration Curriculum which requires 216. The scholarship standing must be at least 1.0. Unless two units in the ancient or modern 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 the minimum requirements all commerce students are urged to take some foreign language.

GENERAL-BUSINESS CURRICULUM

The aim of this curriculum is (1) to provide some breadth of education and the functional knowledges necessary to deal with specialized business courses, (2) to assure an understanding of the fundamental subject matter of economics and business administration, and (3) to provide a liberal amount of elective work so as to enable the student (a) to pursue a specialized business program, (b) to elect courses from several fields of business, or (c) to pursue courses in fields other than economics and commerce. The electives should be taken in accordance with a definite plan, and students

should, therefore, seek advice of faculty members in formulating a satisfactory program.

FRESHMAN AND SOPHOMORE YEARS

	Qtr. Hrs.
English 1a, b, and c, English Composition	9
Mathematics 17, College Algebra	5
Economics 2, Economic History of Europe	4
Psychology 1, Introduction to Psychology	6
Commerce 9, Business Organization	4
Hygiene 1, Personal and Community Health	2
Economics 3, Econ. Hist. of U. S., or Econ. 4, Resources and Industries, or Econ Geography	4
Mathematics 15, Mathematics of Finance	4
Economics 1, Principles of Economics	5
Commerce 7a and 7b, Principles of Accounting	10
Political Science 51, American Government	5
History 4b, Modern Europe Since the French Revolution	5
Biological or Physical Science	8–15
Commerce 10, Principles of Marketing	5
Military Science 1a, b, c, and 6a, b, c, 1st. and 2nd. Yr. Basic	12
Physical Education	3
Elective	5
	96

JUNIOR AND SENIOR YEARS

English 30, Business English	3
A course in Statistics	4 or 3
Commerce 117, Corporation Finance	4
Economics 105, Money and Banking	4
Commerce 109a, and b, Business Law	8
Economics 104, Public Finance	4
Commerce 137, Problems in Management; or Commerce 138, Investigation of Business Problems	4
Elective from Advertising, Salesmanship or Marketing	3 or 4
Elective from Social Science	4
Electives including three Economics and Commerce courses	58
	96

Total Quarter Hours—192

BUSINESS-MANAGEMENT CURRICULUM

This curriculum is designed to lay the groundwork for managerial positions in business. The list of required courses, therefore, includes the primary subject matter of a number of businesses as well as the principles of management. Students looking toward managerial positions in industry are advised to take considerable work in physical science in addition to the courses specified, or else follow the Industrial-Administration Curriculum. It is assumed that academic training in management will be supplemented with practical training offered by the business concern.

FRESHMAN AND SOPHOMORE YEARS

	Qtr. Hrs.
Same as General-Business Curriculum	96

JUNIOR AND SENIOR YEARS

Eng. 30, Business English	3
Commerce 117, Corporation Finance	4
Economics 102, Labor Problems	4
Commerce 118, Cost Accounting	4
Economics 105, Money and Banking	4
Commerce 119, Retail Merchandising; or Commerce 135, Adv. Marketing; or Commerce 136, Sales Management	3–4
Commerce 131, Investments; or Commerce 154, Urban Real Estate	4
Psychology 106, Industrial Psychology	4
Economics 104, Public Finance	4
Commerce 109a, and b. Business Law	8
Commerce 137, Problems in Management	4
Commerce 143, Life Insurance; or Commerce 144, Property and Casualty Insurance	4
Commerce 145, Office Management	4
Commerce 155, Industrial Relations	4
Electives including 16 quarter hours in Economics and Commerce	38
	96

Suggested Electives:
Economics 103, Transportation
Economics 130, Labor Legislation
Political Science 177a, Principles of Public Administration
Psychology 8, Individual Differences

Total Quarter Hours—192

INDUSTRIAL-ADMINISTRATION CURRICULUM

This curriculum is designed to prepare students for positions in production management. The list of required courses recognizes the necessity of providing an understanding of the primary subject matter of business administration, the principles of management, and in addition the basic principles and characteristics of the materials with which industry deals. Hence the curriculum includes courses concerned with engineering and the physical sciences in addition to those required in the Business-Management Curriculum.

FRESHMAN AND SOPHOMORE YEARS

	Qtr. Hrs.
English 1a, b, and c, English Composition	9
Economics 2, Economic History of Europe	4
Mathematics 17, College Algebra	5
Mathematics 3, Plane Trigonometry	5
Chemistry 1a and b, General Chemistry	10
Commerce 9, Business Organization	4
Mathematics 19, Plane Analytics	5
Hygiene 1, Personal and Community Health	2
Economics 1, Principles of Economics	5
Commerce 7a and b, Principles of Accounting	10
Economics 4, Resources and Industries	4
Political Science 51, American Government	5
Physics 1a, b, and c, or 3a, b, and c, General Physics	15–18
Chemistry 4, Qualitative Analysis	6
Engineering Drawing 17a and b, Mechanical Drawing	4
Military Science 1a, b, and c and 6a, b, and c, 1st and 2nd Yr. Basic	12
Physical Education	3
	108

JUNIOR AND SENIOR YEARS

A course in Statistics	4
Psychology 1, Introduction to Psychology	6
History 4b, Modern Europe Since the French Revolution	5
Commerce 10, Marketing or Commerce 11, Salesmanship	3–5
Economics 103, Transportation	4
Commerce 117, Corporation Finance	4
Commerce 118, Cost Accounting	4
Psychology 106, Industrial Psychology	4
English 30, Business English	3
Economics 105, Money and Banking	4
Commerce 109a and b, Business Law	8
Economics 102, Labor Problems, or 130 Labor Legislation	4
Economics 126, Economics of Public Utilities	4
Economics 104, Public Finance	4
Commerce 137, Problems in Management	4
Commerce 155, Industrial Relations	4
Elective in Commerce	4
*Electives in Physics, Geology, Chemistry, or theoretical courses in Engineering	35
	108

Total Quarter Hours—216

* Students will select courses under the joint guidance of the Head of the Department involved and the Dean of the College of Commerce.

MARKETING AND ADVERTISING CURRICULUM

The aim of this curriculum is to provide professional training in marketing, merchandising, and advertising. In addition to courses in these fields offered by the College of Commerce, courses offered by the Departments of Psychology, Journalism, and Art are either required or suggested as electives.

FRESHMAN AND SOPHOMORE YEARS

	Qtr. Hrs.
Same as General Business Curriculum	96

JUNIOR AND SENIOR YEARS

Commerce 117, Corporation Finance	4
Journalism 21, Etymology, or elective in English	4
English 30, Business English	3
Psychology 5, Psychology of Advertising and Selling	4
Commerce 11, Salesmanship	3
Economics 105, Money and Banking	4
Commerce 135, Advanced Marketing	3
Commerce 119, Retail Merchandising	4
Commerce 136, Sales Management	3
Commerce 109a and b, Business Law	8
Economics 104, Public Finance	4
Commerce 140, Advertising Campaigns	4
Commerce 149, Market Analysis	4
Electives including two courses from the suggested list	44
	96

Suggested Electives:

Journalism 115, Advertising Typography and Layout
Art 29, Advertising Art
Commerce 137, Problems in Management
Commerce 138, Investigation of Business Problems
Commerce 143 Life Insurance
Commerce 144, Property and Casualty Insurance
Commerce 145, Office Management
Economics 153, Economics of Consumption
Commerce 154, Urban Real Estate

Total Quarter Hours—192

COMMERCE-LAW CURRICULUM

Emphasis on economics and business administration in pre-law training provides basic principles for analyzing the social problems related to money, business, and labor, as well as for understanding the internal problems of the business concern. This is important because much of the law is concerned with these problems.

The Commerce-Law Curriculum is intended for students who wish to complete the requirements for the two degrees of Bachelor of Science in Commerce and Bachelor of Laws in six years. First-year law subjects are included in the senior year of this curriculum. During the fifth and sixth years the student completes the remaining law courses necessary to receive the degree of LL. B. In order to qualify for the two degrees under this program the requirements of the first three years must be completed before entering the College of Law.

FRESHMAN AND SOPHOMORE YEARS

	Qtr. Hrs.
Required Courses of General-Business Curriculum and Political Science 80, State Government	96

JUNIOR YEAR

A course in Statistics	4 or 3
English 30, Business English	3
Economics 102, Labor Problems	4
Commerce 117, Corporation Finance	4
Economics 105, Money and Banking	4
Economics 104, Public Finance	4
Philosophy or Logic	4
Elective in Sociology, Economics, or Commerce	4
Electives including 12 quarter hours in Economics and Commerce	22
	53

SENIOR YEAR

Property I and II	6
Pleading I and II	6
Contracts I and II	9
Torts I, II, and III	9
Domestic Relations	3
Criminal Law and Procedure	6
Agency	3
Legal Bibliography	1
	43

Total Quarter Hours—192

SECRETARIAL CURRICULUM

The Secretarial Curriculum is designed to prepare the student for various types of office positions including secretarial, stenographic, filing, general clerical, machine operation, typewriting, and office supervision. In addition to specialized training in office techniques and skills, it provides a liberal education which is desirable in the types of work enumerated above. The electives enable a student to pursue his special aptitudes and interests.

While the curriculum is designed primarily for the training of office workers, opportunity is provided also for the training of

commerce teachers. Enough electives are available to include in the program education and other courses usually required for certification. It will be necessary, however, for the student to check certification requirements in the state in which he expects to teach. The Head of the Department of Business Education and the Dean of the College of Education will counsel with him on certification requirements in the various states. Attention is specifically called to a program for commerce teachers offered by the College of Education.

FRESHMAN AND SOPHOMORE YEARS

	Qtr. Hrs.
English 1a, b, and c, English Composition	9
Economics 2, Economic History of Europe	4
Commerce 13a and b, Secretarial Practice, Shorthand	8
Commerce 17a and b, Secretarial Practice, Typewriting	6
Foreign Language, or Mathematics 17, College Algebra	5
Commerce 9, Business Organization	4
Foreign Language, or Mathematics 15, Mathematics of Finance	4–5
Economics 3, Economic History of U. S., or	
Econ. 4, Resources and Industries, or Econ. Geog.	4
Hygiene 1, Personal and Community Health	2
History 4b, Modern Europe Since the French Revolution	5
Economics 1, Principles of Economics	5
Commerce 7a and b, Principles of Accounting	10
Commerce 14a and b, Advanced Secretarial Practice	8
Political Science 51, American Government	5
Military Science 1a, b, and c, and 6a, b, and c, 1st and 2nd Yr. Basic	12
Physical Education	3
Elective	2
	96

JUNIOR AND SENIOR YEARS

Commerce 10, Principles of Marketing	5
Biological or Physical Science	8
Psychology I, Introduction to Psychology	6
Commerce 117, Corporation Finance	4
Commerce 151, Secretarial Statistics	4
English 30, Business English	3
Economics 105, Money and Banking	4
Philosophy 21, Introduction to Philosophy, or 51, Ethics	4
Commerce 18, Filing	2
Commerce 6, Secretarial Accounting	3
Commerce 11, Salesmanship	3
Commerce 109a, Business Law	4
Economics 104, Public Finance, or Commerce 109b, Business Law	4
Commerce 101, Secretarial Office Practice	2
Commerce 156, Business Reports	3
Commerce 19, Office Appliances	2
Commerce 145, Office Management	4
Electives	31
	96

Total Quarter Hours—192

A MAJOR IN ECONOMICS

Courses classified under the general head of economics are definitely social science subjects. This fact is recognized by the College of Arts and Sciences which makes provision for students enrolled in that College to major in Economics. Students enrolled in the College of Commerce desiring to specialize in Economics should pursue the General Business Curriculum and take as electives courses listed under the head of economics. The electives

should include the following courses: 110, Business Cycles; 115, Value and Distribution Theory; 125, Evolution of Economic Institutions; 127, International Economic Policies; 152, Income and Wealth; 153, The Economics of Consumption.

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. The advanced accounting courses are: 106a and b, Intermediate Accounting; 108, Accounting Theory; 113, Auditing; 118, Cost Accounting; 129, Credit and Statement Analysis; 132a and b, C. P. A. Problems; 133, Income Tax Procedure.

Students interested in preparing for public accounting practice should take all of the above courses. Those making a good scholastic record should be prepared to pass a certified public accountant examination. To qualify for the C. P. A. certificate, in addition to passing an examination, it will be necessary to comply with experience and residence requirements. Interested students should, therefore, investigate the requirements of the state in which they wish to practice.

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. The advanced courses dealing with method and theory offered by the College of Commerce are: 142, Index Numbers; 150, Business Statistics; and 210, Research Statistics.

PREPARATION FOR PUBLIC SERVICE

In view of the increased demands from federal, state and local governments for experts in public finance, accounting, marketing, statistics and personnel management, students should consider the possibility of preparing for public service careers. In addition to some concentration in a field of economics or business administration preparation for government service should include certain courses in Political Science, especially Political Science 177a and b, Principles of Public Administration. Interest in personnel management logically calls for the inclusion of certain courses in Psychology. Preparation for foreign service should include various courses in economics, political science, and history, dealing with international relations. Foreign languages are indispensable. Faculty advice should be sought in formulating a satisfactory program.

OTHER COMBINATIONS

In addition to fields of specialization and combinations of subject matter outlined above, students pursuing the General-Business and Secretarial Curricula can utilize their electives so as to combine a business-training program with other fields of study. Following are some suggestions: (1) Agriculture, (2) Journalism, (3) Courses in Chemistry, Zoology, Physiology and Bacteriology in preparation for medical-secretarial positions, (4) Social Welfare Work, (5) any Liberal Arts group. Students interested in such programs should seek faculty advice concerning the courses that will best meet their needs.

SPECIAL PROGRAMS FOR WAR VETERANS

War veterans who have ability to do creditable work in the field of business administration but who are not in position to complete a four-year curriculum, should confer with the Director of the University Personnel Office and the Dean of the College of Commerce concerning a program that will best prepare them for the careers they wish to pursue. Groups of courses can be recommended which represent the essential elements of preparation for such vocations as accounting, salesmanship, advertising, secretarial, clerical and statistical work, and for the operation of such businesses as merchandising, insurance, real estate, and banking. For example a one or two-year curriculum for small merchants could include such courses as business organization, principles of accounting, principles of marketing, principles of economics, applied economics, salesmanship, retail merchandising, psychology of advertising and selling, corporation finance, et cetera.

GRADUATE PROGRAM

For a statement of departmental requirements for the degrees of Master of Arts and Doctor of Philosophy in economics and commerce the student is referred to the Bulletin of the Graduate School.

DEGREES AND REQUIREMENTS IN THE GRADUATE SCHOOL

William Delbert Funkhouser, M.A., Ph.D., D.Sc., Dean

INTRODUCTORY STATEMENT

Graduate work is offered in all colleges in the University. Approximately one thousand courses are listed in the catalog under the various departments, which may be accepted for graduate credit.

The following advanced degrees are conferred by the University:

Master of Arts
Master of Science
Master of Science in Public Health
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
Civil Engineer
Electrical Engineer
Mechanical Engineer
Metallurgical Engineer
Mining Engineer
Master of Arts in Education
Master of Science in Education
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, Romance Languages, and Psychology. Minor work may be carried in any department offering graduate courses.

ADMISSION TO GRADUATE STANDING

A student may be admitted to the Graduate School upon evidence of having completed the requirements for graduation from a fully accredited institution of higher learning and an official

transcript of undergraduate courses, together with a written application. The status of the institution is to be ascertained from the Registrar of the University. A graduate from a non-accredited institution is 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 application and 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, provided that courses numbered from 100 to 199 may be counted only with the approval of the student's graduate committee. A course completed with a grade of D will not be given graduate credit.

General Requirements for a Master's Degree. All candidates for any master's degree must have completed the equivalent of an A. B. or B. S. degree in a fully accredited institution. Part-time residence during any quarter is computed on the basis of one week of residence for each quarter hour earned, but the amount of residence for part-time work is limited, except for graduate assistants and part-time instructors, to not more than four weeks in any one quarter. To obtain full residence in any quarter the student must

carry a minimum of nine quarter hours. In one term of the summer quarter he must carry a minimum of six quarter hours. No credit toward advanced degrees is allowed for correspondence or extension work and no transferred credit is accepted toward a master's degree.

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 $4.00 per quarter hour. Non-residents pay $6.25 per quarter hour.

Before the advanced degree is conferred, a fee of $15.00 must be paid at the Comptroller's Office of the University. This covers the graduation fee, diploma fee, fee for binding the thesis, and all other incidental costs.

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

A student, 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 a candidate 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 36 quarter hours of graduate work in course with a standing of 2.0, and no course completed with a grade below C shall be counted.

Courses. The major field shall comprise, as to courses, two-thirds of the work with electives (within the department or allied departments) of 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 quarters or summer terms which totals 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 quarter 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 four weeks in any one quarter.

Transfer of Credits. No transferred credits are accepted toward the Master of Arts or Master of Science degree. 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 quarter. 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 received the degree of A. B., or A. B. 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. Thirty-six quarter hours in graduate courses, exclusive of the thesis, with an average standing of 2.0, or better; one academic year (36 weeks) in residence, and an acceptable thesis. No course completed with a 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 com-

pletion of 54 quarter hours in graduate courses with an average standing of 2.0 or better, 48 weeks in residence, and no requirement of a thesis.

There is no language requirement for either of these professional degrees. No student may satisfy more than one-half the requirements for advanced degrees in the College of Education by part-time work.

REQUIREMENTS FOR THE DEGREES OF MASTER OF SCIENCE IN AGRICULTURE AND MASTER OF SCIENCE IN HOME ECONOMICS

A student 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 36 quarter hours of graduate work with an average standing of 2.0 or better, 36 weeks in residence, and a thesis, or
2. The completion of 54 quarter hours of graduate work with a standing of 2.0 or better, 48 weeks in residence, and no thesis requirement
3. Under either plan no course completed with a 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

A student 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. Thirty-six quarter hours in graduate courses with an average standing of 2.0 or better and with no grade below C
2. Thirty-six weeks in residence
3. An acceptable thesis
4. 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 Masters' Degrees and the Professional Degrees.

The Masters' Degrees in Engineering. The masters' degrees in engineering may be obtained by satisfying the following requirements:

Thirty-six quarter hours in graduate courses, with an average standing of 2.0 or better, one academic year (36 weeks) in residence, and an acceptable thesis. No course completed with a 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 masters' 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.

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 which 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 satisfied the language requirements, passed the qualifying examinations, 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. Although 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 Examination. Applicants for the degree of Doctor of Philosophy are required to pass a qualifying examination. This examination shall be taken during the third quarter 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 in residence 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 three 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.

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 has been spent in residence 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 Faculty 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 stipend of $200.00 each

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 any student who holds a bachelor's degree from a college or university in good standing, provided the 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 six graduate assistantships in 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 form may be obtained from the Director of Reesidence Halls for Women. Applications should be submitted not later than July 1.

GRADUATE STUDENTS NOT CANDIDATES FOR DEGREES

Graduate students who are not candidates for advanced degrees 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.

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, Philosophy, Political Science, Psychology, Sociology, and 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 forensic 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.

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.

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*Separate bulletins for each of these bureaus are available.

PART III
STATEMENT OF COURSES OFFERED AT THE UNIVERSITY

Courses numbered 1 to 99, inclusive, may be taken for credit only by undergraduate students. Courses numbered 100 to 199, inclusive, may be taken for credit by juniors, seniors, and graduate students, provided that a course so numbered may carry graduate credit only with the approval of the student's graduate committee. Courses numbered 200 or above are open only to graduate students. The first third of a year's course is indicated by the letter a; the second third by the letter b, and the last third by the letter c. Seminar courses and independent or individual work courses in which more than three quarters' 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 quarter hours is indicated by a number in parentheses, thus (4); the first, or fall quarter is indicated by I, the second, or winter quarter by II, the third, or spring quarter by III, and the fourth, or summer quarter by IV. Thus, German 2a, Intermediate German (4) I, II, III, IV, is an undergraduate course giving four quarter hours and offered in all four quarters of the year.

STATEMENT OF COURSES

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COLLEGE OF ARTS AND SCIENCES

ANATOMY AND PHYSIOLOGY

Professor Allen, Assistant Professors Driver*, and Brown*, and Mrs. Anderson, Mrs. Cole, and Miss Keller

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

Requirements in the Field of Concentration: Sixty quarter hours 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, and 1b; Zoology 1a, 1b, and 1c; Physics 1a, 1b, and 1c; Chemistry 1a and 1b. **Required:** A minimum of 21 quarter hours of advanced work in Anatomy and Physiology plus Seminar in A. & P. (116a, b, c) and passing a comprehensive examination in senior year.

1a **GENERAL PHYSIOLOGY. (4) I, II, III, IV** Allen and Cole
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. (4) II, III, IV** Allen and Cole
The course is a continuation of 1a. The vascular system; respiration; gastro-intestinal tract; digestion and absorption of foods; organs of excretion; production and regulation of the body's heat; and the organs of speech. Not available for credit to students who have A. & P. 5. **Not open to freshmen.**

3 **PHYSIOLOGY. (5) I, III** Allen and Cole
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, three hours a week; laboratory, four hours a week. **Prerequisites: Chemistry 1a and 1b or the equivalent; Chemistry 37.**

4 **ELEMENTARY ANATOMY. (5) I** Allen and Cole
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 rela-

* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

tion 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. Lectures, three hours a week; laboratory, four hours a week. **Prerequisite: Sophomore standing.**

5 PHYSIOLOGY. (5) II Allen and Cole
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. Lectures three hours a week; laboratory, four hours a week. Not available for credit to students who have had A. & P. 1b. **Prerequisite: A. & P. 4.**

6a GENERAL ANATOMY AND PHYSIOLOGY FOR NURSES. (4) I, III Allen and Cole
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. Lectures and recitations, three hours a week; laboratory, two hours a week. **Prerequisite or concurrent: General Chemistry.**

6b GENERAL ANATOMY AND PHYSIOLOGY FOR NURSES. (4) II, IV Allen and Cole
This is a continuation of 6a and will cover the following subject matter: the vascular system; the 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: 6a.**

103a-d INDEPENDENT WORK IN ANATOMY. (4 ea.) I, II Allen
The pursuit of some advanced problems in anatomy under the direct supervision of the instructor. Discussion period, one hour a week; laboratory six hours a week. **Prerequisite: A. & P. 1a and 1b or the equivalent.**

104a-d INDEPENDENT WORK IN PHYSIOLOGY. (4 ea.) I, II Allen
A study of some advanced problem in physiology under the direct supervision of the instructor. Discussion period, one hour a week; laboratory, six hours a week. **Prerequisite: A. & P. 1a and 1b or equivalent; Chemistry 1a and 1b.**

105 ARCHITECTURE OF THE HUMAN SKELETON. (5) I, IV Allen and Cole
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 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 is studied in detail. Lecture and recitation, two hours a week; laboratory, six hours a week. **Prerequisite: Junior standing.**

106 INTRODUCTION TO ENDOCRINOLOGY. (4) II, IV 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, four hours a week. **Prerequisite: A. & P. 1a and 1b or the equivalent; Zoology 7b; Chemistry 1a and 1b; and the Instructor's consent.**

107 ADVANCED ANATOMY. (5) III, IV Allen and Cole

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 is considered. The relation of the structure of the nervous system to psychological reactions is studied. Lectures and recitations, three hours a week; laboratory, four hours a week. **Prerequisite: A. & P. 1a and 1b or the equivalent.**

108a ADVANCED PHYSIOLOGY. (4) I Allen and Cole

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 this part of the course, the nervous system is to be considered in its entirety. It will include the structures and functions of the spinal cord, the medulla oblongata, the cerebellum, the cerebrum, and the autonomic system. The course will close with an intensive study of the special sense organs. Lectures and recitations, two hours a week; laboratory, four hours a week. **Prerequisite: A. & P. 1a and 1b; Chemistry 1a and 1b; Physics 1a, 1b, and 1c.**

108b ADVANCED PHYSIOLOGY. (4) II Allen and Cole

This is a continuation of 108a. The course is opened with the consideration of muscle-physiology which will include both skeletal and smooth muscle tissue. Graphic records which show the character of the contraction of each type of muscle are to be made. This will be followed by observing the various factors that alter the character of the contraction. Experiments are also performed to demonstrate that muscle is a thermogenic and an electrogenic organ. In addition to the muscle-study, the circulatory system and the respiratory system are to be thoroughly surveyed. In each case, much time is given to the consideration of the mechanics, nervous regulation, and functional peculiarities. Lectures and recitations, two hours a week; laboratory, four hours a week. **Prerequisite: Same as for A. & P. 108a.**

108c ADVANCED PHYSIOLOGY. (4) III Allen and Cole

This division is a continuation of the preceding, 108a and 108b. It is concerned with a careful study of each of the following: The gastro-intestinal tract with its secretory organs; the processes of digestion, absorption, excretion, and heat production; voice and the production of speech. Lectures and recitations, two hours a week; laboratory, four hours a week. **Prerequisite: Same as for A. & P. 108b.**

109 APPLICATION OF PHYSICAL PRINCIPLES TO THE HUMAN BODY. (4) II, IV Allen

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 visíon, mechanics of hearing, mechanics of speech or voice. Lectures and recitation, three hours a week; laboratory, two hours a week. **Prerequisite: A. & P. 1a and 1b; Physics 1a, 1b, and 1c; Chemistry 1a and 1b.**

116a-c SEMINAR IN ANATOMY AND PHYSIOLOGY. (1 ea.) 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. **Prerequisite: A. & P. 1a and 1b or the equivalent.**

201a, b RESEARCH IN PHYSIOLOGY. (6, 6) I, IV Allen

The pursuit of an assigned problem in which the student will have the opportunity to demonstrate his or her originality. Conferences and laboratory, twelve hours a week. **Prerequisite: A. & P. 1a and 1b or the equivalent; Chemistry 130a, 130b, and 130c or the equivalent; Physical Chemistry desirable; Physics, one year.**

ANCIENT LANGUAGES AND LITERATURES

Professor Jones and Assistant

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

Requirements in the Field of Concentration: 60 quarter hours 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 22 quarter hours of advanced work in Ancient Languages; 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 quarter of University work.

Latin

*1a **BEGINNING LATIN.** (3) I — Jones
First 35 lessons in Bennett's First Year Latin.

*1b **BEGINNING LATIN (Continuation).** (3) II — Jones
Lessons 36–72 in Bennett's First Year Latin.

*2 **CAESAR AND SELECTIONS.** (3) III — Jones
The equivalent of three books of Caesar. **Prerequisite: A. L. 1. a-b.**

*3 **CICERO AND SELECTIONS.** (3) I — Jones
The equivalent of three orations of Cicero. **Prerequisite: A. L. 2.**

*4a **VERGIL.** (3) II — Jones
(Books I, II of Æneid.) **Prerequisite: A. L. 2 or 3.**

*4b **VERGIL (Continuation).** (3) III — Jones
(Books IV, VI of Æneid)

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

*6a **HORACE.** (3) II — Jones
(First three books of Odes.) **Prerequisite: A. L. 4 or 5.**

*6b **HORACE (Continuation).** (3) III — Jones
(Book four of Odes: Satires: Epistles.)

7 **TACITUS.** (3) I — Jones
(Germania, Agricola, Selections.) **Prerequisite: A. L. 5 or 6a and b.**

8a **PLINY'S LETTERS.** (3) II — Jones
(First five books.) **Prerequisite: A. L. 5 or 6a and b.**

8b **PLINY'S LETTERS (Continuation).** (3) III — Jones
(Last five books; and one play of Terence.)

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

109a-c **LATIN LITERATURE.** (3 ea.) I — Jones
(Selections from various authors.) **Prerequisite A. L. 7 or 8a and b.**

* Open to Freshmen.

110a-c LATIN LITERATURE. (3 ea.) I Jones
Prerequisite: A. L. 7 or 8a and b.

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

114a, b INTERMEDIATE LATIN COMPOSITION. (1, 1) I Jones
The course will begin with easy passages in connected discourses and will proceed to more difficult selection. **Prerequisite A. L. 5.**

120 SURVEY OF GREEK CIVILIZATION. (3) I Jones
History, Public and Private Life, Archaeology. **Prerequisite: Junior standing.**

121 SURVEY OF ROMAN CIVILIZATION. (3) I Jones
(Continuation of 120.) **Prerequisite: Junior standing.**

150a TEACHER'S COURSE IN LATIN. (3) IV 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. (Continuation). (3) IV 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: A. L. 2 or 150a.**

151a-d INDEPENDENT WORK IN ANCIENT LANGUAGES.
(3 ea.) I, II, III, IV Jones
These courses are courses in individual work. The work assigned will depend upon the needs of the student. **Prerequisite: A. L. 5.**

201a LATIN PASTORAL POETRY. (3) II Jones
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: A. L. 109a or equivalent.**

201b LATIN ELEGIAC POETRY. (3) III Jones
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: A. L. 109a or equivalent.**

Greek

***51a, b BEGINNING GREEK. (3, 3) I** Jones
First 30 lessons in Benner & Smyth's Beginning Greek.

122a GREEK LITERATURE IN ENGLISH TRANSLATION. (3) II Jones
Epic and lyric poetry. **Prerequisite: Junior standing.**

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* Open to Freshmen.

122b GREEK LITERATURE IN ENGLISH TRANSLATION. (3) III Jones
Drama, oratory, history, and philosophy. **Prerequisite: Junior standing.**

149 EASY SELECTED READING FROM GREEK AUTHORS. (3) III Jones
Prerequisite: A. L. 51.

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

153 HOMER. SELECTIONS. (3) I 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: A. L. 149.**

154 PLATO. SELECTIONS. (3) II 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: A. L. 149.**

155 HERODOTUS. SELECTIONS. (3) III 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: A. L. 149.**

ANTHROPOLOGY AND ARCHAEOLOGY

Professors Webb and Funkhouser and Associate Professor Snow†

***1a GENERAL ANTHROPOLOGY. (3) I** Snow
An introductory course with emphasis on Physical Anthropology. Measurements of the living and skeleton, origin, development, and distribution of man, races and racial mixture. Heredity and growth.

***1b GENERAL ANTHROPOLOGY. (3) II** Snow
The archaeology and ethnology of the Old World. The arts and industries, sociology, religious beliefs, and languages of the peoples of Europe, Asia, and Africa.

***1c GENERAL ANTHROPOLOGY. (3) III** Snow
The archaeology and ethnology of the New World and Oceania. The cultures of the peoples of North and South America and the Pacific Islands.

101 PRINCIPLES OF ANTHROPOLOGY. (3) III, IV Funkhouser
Fundamental principles of anthropology; relationships of physical anthropology, anthropometry, ethnology, ethnography and archaeology; anthropology of the New World, North American prehistory; ancient human occupation in the Mississippi Valley; outline of man's prehistoric past in Kentucky; anthropological studies of Kentucky materials.

103a-d INDEPENDENT WORK IN ANTHROPOLOGY AND ARCHAEOLOGY. (3 ea.) Staff

105 ETHNOLOGY. (3) I 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.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to Freshmen.

106 ETHNOLOGY OF EUROPE. (3) II Funkhouser

A study of the origins and migrations of the ethnological groups of Europe. The influence of Hamitic, Ligurian, Iberian and Pelasgian stocks on 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, three hours.

107 ETHNOLOGY OF THE NEW WORLD. (3) III Funkhouser

A study of the origins and migrations of the ethnological groups of the new world.
(This is an expansion of A. & A. 105 and 106 into a third quarter's work.)

125 PHYSICAL ANTHROPOLOGY. (3) I, II, III, IV Snow

Detailed study of the origin and development of the races of man with emphasis on somatic and skeletal difference, measuring techniques, growth, race mixture, and hereditary effects, development of human dentition, and osteopathology as observed in prehistoric man.

ART

Professor Rannells, and Assistant Professors Callihan and Barnhart

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

Requirements in the Field of Concentration: Sixty quarter hours 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: Art 61a, 61b (drawing), 62 (design), 35, and 36 (history of art). **Required:** a minimum of 34 quarter hours—16 in studio courses, 16 in history of art, plus the senior seminar and comprehensive examination in the senior year.

These requirements insure the necessary balance of theory and practice in the study of art. The department is housed in a modern building with special equipment. Studios for the practical work are designed to meet exacting professional standards. An excellent art library adjoins the class rooms. There are extensive collections of photographs, color reproductions, and related art reference materials. An exhibition gallery provides for the study of original works of art.

***30a INTRODUCTION TO ART. (2) I, II, IV** Callihan

Elementary principles, theory of color, essentials of design, and forms of art. Given in illustrated lectures with assigned problems, notebooks, and reports. Not open to students who have had Art 10a.

* Open to Freshmen.

***30b INTRODUCTION TO ART. (2) II, III** Callihan

The plastic arts; an introductory survey and interpretation of architecture and sculpture and design. Illustrated lectures, study of original works of art, library references, and notebooks and reports.

***30c INTRODUCTION TO ART. (2) I, III** Callihan

Painting and the decorative arts; a survey of masterpieces in painting and major styles in decoration. Illustrated lectures, study of original works of art, library references, and notebooks and reports.

Drawing and Painting

***61a ELEMENTARY DRAWING. (4) I, III, IV** Barnhart

Training of vision and development of skill through drawing from natural forms. Nine studio hours and weekly problems.

***61b ELEMENTARY DRAWING. (4) II, IV** Barnhart

Continuation of 61a. Analytical study of form and space; introductory problems in composition. Nine studio hours and weekly problems. **Prerequisite: 61a.**

63a ADVANCED DRAWING. (4) I, IV Barnhart

Analysis of composition in black and white. Comparative study of actual and pictorial space. Twelve studio hours a week. **Prerequisite: 61b.**

65a-c PAINTING. (4 ea.) II, III, IV Barnhart

Technical instruction in oil and water color. Introduction to the study of pictorial composition; still life, landscape, and figure. Twelve studio hours a week. **Prerequisite: 63b or 63a, at option of instructor.**

117a-f INDEPENDENT WORK: PAINTING; PRINT-MAKING. (4 ea.) Staff

Individual research and experimental work in technical and theoretical problems of drawing and painting, printmaking, etc. Each quarter's work is subject to review by the staff. Open only to advanced students upon approval of department head.

165a-c ADVANCED PAINTING. (4 ea.) I, II, III, IV Barnhart

Preparation of grounds for panel pictures; gesso, chalk, half-chalk, and on grounds. Execution of pictures in tempera, and oil and mixed techniques. Twelve studio hours a week. **Prerequisite: 65b.**

Design

***62 BASIC DESIGN. (4) III, IV** Barnhart

The relation of materials and processes to art concepts. Exploratory construction in wood, clay, metal, paper, etc. Nine studio hours and weekly problems. **Prerequisite: 61b or equivalent.**

64a, b INTERMEDIATE DESIGN. (4, 4) I, II, III, IV Barnhart

Problems in creative construction adapted to the individual. Modeling, carving, and making objects of use. Eight studio hours and weekly problems. **Prerequisite: 61b and 62.**

* Open to Freshmen.

66a, b DESIGN IN DECORATION. (4, 4) I, II, III — Callihan

Problems in the use of color; projects in textile design, costume, interior decoration, etc., adapted to the individual. Given as research or studio work. **Prerequisite: 61b and 62.**

29 ADVERTISING ART. (3) III — Barnhart

Art principles in advertising. Six studio hours and weekly problems. **Prerequisite: 61a and 62, or junior standing in Journalism or Commerce.**

68a GRAPHIC DESIGN. (4) II — Barnhart

Design in printing, lettering, illustration. Basic work; research and studio problems. Eight studio hours and weekly problems. Admission on approval of instructor.

68b GRAPHIC DESIGN. (4) III — Barnhart

Continuation of 68a. Individual problems in publications, poster design, and display. Attention given to campus problems. Eight studio hours and weekly problems.

119a-f INDEPENDENT WORK: DESIGN, CONSTRUCTION. (4 ea.) Staff

Individual research and experimental work in technical and theoretical problems of design in materials, design for decoration, interior design, industrial design, commercial design, construction, color, and light. Each quarter's work is subject to review by the staff. Open only to advanced students upon approval of department head.

History of Art

35 ANCIENT ART. (4) I — Rannells

The arts in the ancient cultures of the Mediterranean and west-Asian worlds, from old Egypt and Chaldea through Greek and Roman times to Byzantium in the sixth century A. D. Emphasis on Classic art. Illustrated lectures, conferences, and reports.

36 MEDIEVAL ART. (4) II — Rannells

The arts in relation to the Byzantine and Islamic cultures in the near East, and to the Latin and Germanic cultures in the West, during the early middle ages; and of Gothic art in France and northern Europe through the fifteenth century. Emphasis on Christian art. Illustrated lectures, conferences, and reports.

46 THE DECORATIVE ARTS. (3) III — Callihan

A survey of the decorative arts; a comparative study of the treatment of interiors, of furniture, textiles, ceramics, etc., with special reference to the major styles in decoration as developed in France and England during the eighteenth and early nineteenth centuries. An illustrated and documented course; lectures and reports.

121a-f INDEPENDENT WORK: HISTORY AND CRITICISM(4 ea.) Staff

Individual research, study, and critical writing in the history and criticism of art. Studies in collaboration with other humanistic disciplines. Each quarter's work is subject to review by the staff. Open only to advanced students upon approval of department head.

140 RENAISSANCE ART. (4) I Rannells
The arts of humanism in Renaissance Italy and in the North through the sixteenth century. Renaissance "form"; analyses of style; study of individual masters. Illustrated lectures and reports.

141 BAROQUE ART. (4) II Rannells
The arts of the Reformation and the Counter-Reformation in Europe through the seventeenth century. Baroque "space"; analyses of style; study of individual masters. Illustrated lectures and reports.

142 MODERN ART. (4) I Rannells
The arts in Europe and America through the eighteenth and nineteenth centuries. Consideration of social changes and scientific developments in relation to art; history and aesthetics; style revivals; individual artists. Illustrated lectures and reports.

143 CONTEMPORARY ART. (4) II Rannells
Studies in the arts of the twentieth century. Surveys and analyses. The relation of art to contemporary life. Space and time in modern art. The evolution of modern forms in architecture, sculpture, painting, and design; developments in photography, the cinema, city planning, etc. Individual artists and their work. Lectures, conferences, and reports. **Prerequisite: 142.**

147 ART IN AMERICA. (4) IV Rannells
American architecture, sculpture, painting, illustration, handicrafts, etc., from colonial times to the present. Illustrated lectures and critical reports. **Prerequisite: 142.**

151 CRITICISM OF ART. (4) III Rannells
Analyses, interpretations, and evaluations. Specific arts, periods of arts and styles of art are examined in the light of historical modes of criticism. Problems in criticism of contemporary art. Discussions and reports. For advanced students. **Prerequisite: Advanced studio courses and 142 and 143.**

160a-c SEMINAR IN ART. (1 ea.) I, II, III Staff
Current problems in art; correlation of theory and practice; reports. Required of all seniors majoring in art in preparation for the comprehensive examination.

Art in Education

10a PUBLIC SCHOOL ART. (3) I, III, IV Callihan
A study of essentials in art; definitions, initial concepts, principles, techniques; elementary skills through practice in design, drawing, and lettering. Forms of art; analysis and interpretation on an elementary level. Bibliographies and teaching materials. For students in elementary education. Lectures, six studio hours and weekly problems. Not open to students who have had Art 30a.

10b PUBLIC SCHOOL ART. (3) I, II, III, IV Haines
Application of art essentials to class room 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, and processes. Bibliographies and teaching materials. For students in elementary education. Given in the University Training School. Lectures, six studio hours and weekly problems. **Prerequisite: 10a.**

157 ART IN SECONDARY SCHOOLS. (4) IV Rannells
Art for teachers in the 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, and reports.

NOTE: Other courses, such as Print Making (116a-c), Mural Painting (167a-c), and individual work in Modeling, Carving, Illustration, Industrial Design, Interior Decoration, etc., are given from time to time. Independent Work courses (117a-f, 119a-f, and 121a-f) provide for the advanced student of special interests and abilities—generally those seeking help on self-planned problems.

BACTERIOLOGY

Professors Scherago, Weaver, and Maxwell; Assistant Professors Thornton†, Hamann†, and Humphries; and Mr. Harrison, Mr. Kinniburgh, Mr. Morse, Miss Adams, Miss Ellias, Miss Bachman, and Miss Newton

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

Requirements in the Field of Concentration: Sixty quarter hours 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:** Three quarter hours in Seminar and a minimum of 20 additional quarter hours of advanced work in Bacteriology, including Bact. 125a and 125b.

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.

Course 52 or 102 may be taken to fulfill the requirement of students in the College of Agriculture and Home Economics, and by premedical students.

***2a ELEMENTARY MICROBIOLOGY.**
(6) I, II, IV Weaver and Humphries
A study of the fundamental nature of bacteria and other micro-organisms, 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, three hours; laboratory, six hours a week.

***2b ELEMENTARY MICROBIOLOGY.**
(6) II, III, IV Weaver and Humphries
Continuation of Course 2a. A cultural study of bacteria. Microbial physiology. A discussion of the relationship of micro-organisms to

† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to Freshmen.

soil fertility, foods, industrial fermentations, disease, etc. Lectures and recitations, three hours; laboratory six hours a week. **Prerequisite: Bacteriology 2a.**

***6a, b BACTERIOLOGY AND PATHOLOGY FOR NURSES.**
(4, 4) II, III, IV Scherago
A study of the characteristics and habits of micro-organisms and of their relation to medicine, surgery, and public health. The causes of disease, the nature of disease processes, the securing and preserving of specimens for the laboratory. Lecture, two hours a week; laboratory, four hours a week for each course.

52 PRINCIPLES OF BACTERIOLOGY. (6) I, II, III Scherago and others
An alternative course for students who do not have the prerequisites for 102. Lectures and recitations three hours, laboratory, six hours a week. **Prerequisite or concurrent: Chem. 1b.**

56a BACTERIOLOGY OF FOODS. (For Sophomores.)
(4) I, IV Weaver and Humphries
Relation of micro-organisms to food production and handling; food preservation. Microbiology of fermentation products, canned foods, eggs, tomato products, meat and meat products, fish and shellfish, etc. Standard methods of bacterial analysis as used in official food and public health laboratories. Food poisoning. Lectures and recitations, two hours; laboratory, four hours a week. **Prerequisite: Bacteriology 52 or 102; or 2b and Chem. 1b**

56b BACTERIOLOGY OF FOODS. (For Sophomores.)
(4) II, IV Weaver and Humphries
Microbiology of milk and milk products. Standard methods of bacterial analysis as used in official food and public health laboratories. Lectures and recitations, two hours; laboratory, four hours a week. **Prerequisite: Bacteriology 52 or 102; or 2b and Chem. 1b.**

57a BACTERIOLOGY OF WATER AND SEWAGE. (For Sophomores.)
(4) III, IV Weaver and Humphries
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. **Prerequisite: Bacteriology 102 or 52; or 2b and Chemistry 1b.**

57b BACTERIOLOGY OF WATER AND SEWAGE.
(2) III, IV Weaver
A course in the bacteriological analysis of water and sewage to supplement Course 57a. Microscopical examination of water. Tests necessary for the operation of water works and sewage treatment plants. B.O.D. test, etc. Laboratory, four hours a week. **Prerequisite: Preceded or accompanied by Bacteriology 57a.**

102 GENERAL BACTERIOLOGY. (6) I, II, III, IV Scherago and others
Observation and cultivation of bacteria and related micro-organisms; study of their morphology, classification, physiology, relation to certain fermentations, to food, to soil fertility, and to disease. Lectures and recitations, three hours; laboratory, six hours a week.
Prerequisite: Chemistry 1b.

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*Open to Freshmen.

103 PATHOLOGY BACTERIOLOGY. (6) I, IV Scherago
A study of human and animal pathogenic micro-organisms, especially their morphological, cultural, and pathogenic properties. Lectures and recitations, three hours; laboratory, six hours a week. **Prerequisite: Bacteriology 102 or 52; or 2b and Chemistry 1b.**

104 APPLIED BACTERIOLOGY.
(3) I, II, III, IV Weaver and others
A course in bacteriological analysis to supplement Courses 52 and 102. Laboratory six hours a week. **Prerequisite: Bacteriology 102 or 52; or 2b and Chemistry 1b.**

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

110b LABORATORY DIAGNOSIS. (3) II, IV
Continuation of 110a. Examination of stomach and intestinal contents and blood. Laboratory, six hours a week. **Prerequisite: same as for 110a.**

110c LABORATORY DIAGNOSIS. (3) III, IV
Continuation of 110b. Laboratory diagnosis of parasitism; laboratory methods used in diagnosis of gonorrhea, typhoid fever, diphtheria, syphilis, etc. Laboratory, six hours a week. **Prerequisite: preceded or accompanied by Bacteriology 125b.**

111 GENERAL PATHOLOGY. (6) III Maxwell, Scherago, and others
The effects of disease on the organs and tissues of the human body will be studied at autopsies and by the examination of fresh and museum specimens as well as histological sections. Degenerations, infiltrations, regenerations, inflammations, disturbances of the circulation, infectious granulomata, neoplasms, etc., will be studied. Lectures and recitations, three hours; laboratory six hours a week. **Prerequisite: Anatomy and Physiology 1a-b; Zoology 7c, 101b, and 106; Bacteriology 103, and consent of head of department.**

115a-f INDEPENDENT WORK. (4 ea.) I, II, III, IV Staff
Students will be assigned special problems in laboratory work and reference reading. Laboratory, eight hours a week. **Prerequisite: any bacteriology course above 102.**

†120a-c HOSPITAL LABORATORY PRACTICE.
(6, 4, 5) I, II, III, IV Maxwell, Harrison, and others
Students will be required to carry out, under supervision, the laboratory work in one of the hospitals in Lexington. Laboratory, eighteen hours, twelve hours, and fifteen hours a week respectively. **Prerequisite: Bacteriology 110a, 110b, and 110c; consent of head of department.**

125a IMMUNOLOGY AND SEROLOGY.
(5) I, IV Scherago
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; comple-

† Credit for the third quarter of hospital practice will be allowed only after the student has passed the examination of the Board of Registry of the American Society of Clinical Pathologists.

ment fixation, etc. Lectures and recitations, two hours a week; laboratory, six hours a week. **Prerequisite: Bacteriology 103.**

125b IMMUNOLOGY AND SEROLOGY.
(3) III, IV Scherago
Continuation of 125a. Antigenic analysis; serology of syphilis; hypersensitiveness. Lectures one hour a week; laboratory, four hours a week. **Prerequisite: Bacteriology 125a.**

150a-f SEMINAR. (1 ea.) I, II, III 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.

201a-f RESEARCH IN BACTERIOLOGY.
(5 ea.) I, II, III, IV Senior Staff
Laboratory, ten hours a week.

203a, b PUBLIC HEALTH BACTERIOLOGY.
(5, 5) IV Scherago and others
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, two hours; laboratory, six hours a week. **Prerequisites: open only to physicians and health officers or those with equivalent training.**

206a BACTERIOLOGY OF FOOD. (4) I, IV Weaver and Humphries
Relation of micro-organisms to food production and handling; food preservation. Microbiology of fermentation products, canned foods, eggs, tomato products, meat and meat products, fish and shellfish, etc. Standard methods of bacterial analysis as used in official food and public health laboratories. Food poisoning. Lectures and recitations, two hours; laboratory, four hours a week. **Prerequisite: Bacteriology 2b or 52; Chemistry 21b**

206b BACTERIOLOGY OF FOODS. (4) II, IV Weaver and Humphries
Microbiology of milk and milk products. Standard methods of bacterial analysis as used in official food and public health laboratories. Lectures and recitations, two hours; laboratory, four hours a week. **Prerequisite: Bacteriology 2b or 52 or 102; Chemistry 21b.**

207 BACTERIOLOGY OF WATER AND SEWAGE.
(6) III, IV Weaver and Humphries
The microflora of water; importance of the colon-typhoid 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, eight hours a week. **Prerequisites: Bacteriology 2b, or 52, or 102; Chemistry 21b.**

250a-f SEMINAR. (1 ea.) I, II, III 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 graduate students. Two hours a week.

BOTANY

Professors Riley and McFarland, and Associate Professor McInteer

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

Requirements in the Field of Concentration: Sixty quarter hours 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 and 1b or 8a and 8b. **Required:** A minimum of 30 quarter hours of advanced work in Botany and the passing of a comprehensive examination covering chiefly the fields of morphology, taxonomy, and physiology.

***1a GENERAL BOTANY. (4) I, II** Staff
Plant cells and tissues; the structure and functions of the vegetative organs of the seed plant.

***1b GENERAL BOTANY. (4) II, III** Staff
The structure, reproduction, and life cycles of typical representatives of the lower plants; reproduction and life cycles of the seed plant. **Prerequisite: Botany 1a or 8a.**

***1c GENERAL BOTANY. (4) III** Riley
An introduction to taxonomy, ecology and heredity in the higher plants. **Prerequisite: Botany 1b or 8b.**

6 PLANT MICROTECHNIC. (5) III Riley
The principal methods used in the preparation of permanent slides for the compound microscope. **Prerequisite: Botany 1b or 8b.**

***8a INTRODUCTION TO BOTANY.**
(4) I, II, III Riley and McInteer
A lecture-demonstration course dealing with the structure and functions of the vegetative organs of the seed plant. Four 1 hour class periods per week.

***8b INTRODUCTION TO BOTANY.**
(4) I, II, III Riley, McFarland
The structure, reproduction, and life cycles of typical representatives of the lower plants; reproduction in seed plants. Four 1-hour class periods per week. **Prerequisite: Botany 1a or 8a, but may be taken simultaneously with 1a or 8a.**

15 LOCAL FLORA (SYSTEMATIC BOTANY). (5) III McFarland
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. **Prerequisite: Botany 1b or 8b.**

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* Open to Freshmen.

103a PLANT PHYSIOLOGY. (4) I McInteer
The principles which underlie the movement of materials in plants, covering absorption, translocation, and transpiration. **Prerequisite: Botany 1b or 8b.**

103b PLANT PHYSIOLOGY. (4) II McInteer
A continuation of 103a, covering the chemical processes and organic materials within the plant. **Prerequisite: 103a.**

104 GENERAL CYTOLOGY. (4) I Riley
Structure of plant and animal cells; cell division; gametogenesis, sporogenesis, fertilization, and apomixis. **Prerequisite: Botany 1b or 8b or 8 quarter hours in Zoology.**

106a-d SPECIAL PROBLEM. (5 ea.) I, II, III Staff
Independent work in some phase of advanced botany. **Prerequisite: 27 quarter hours of advanced courses in Botany.**

114 ECOLOGY. (5) III McInteer
The relationships existing between plants and their various environments; plant succession, plant associations and formations; the principles of plant geography; the vegetation of North America. **Prerequisite: Botany 1b or 8b.**

124 ANATOMY OF VASCULAR PLANTS. (4) II Riley
The nature and origin of primary and secondary tissues and their distribution in plant organs; the detailed structure of some plants of economic importance. **Prerequisite: Botany 1b or 8b.**

125a MORPHOLOGY OF THE FUNGI. (4) I McFarland
A comprehensive study of the many typical forms of the Myxomycetes and Phycomycetes; their structure, methods of reproduction, and classification are studied in detail. **Prerequisite: Botany 1b or 8b.**

150a, b ADVANCED SYSTEMATIC BOTANY. (5, 5) I, II, III McFarland
For those students who have completed Botany 15 or its equivalent and who wish to continue with identification. The student will be expected to identify many more and more difficult specimens than in Botany 15. A comprehensive survey of the different methods of classification will be required of each student. **Prerequisite: Botany 15 or its equivalent.**

206a, b RESEARCH IN MORPHOLOGY. (5, 5) Riley
Graduate students will be assigned to problems in morphology, morphogenesis, cytology, or cyto-genetics.

207a, b RESEARCH IN MYCOLOGY. (5, 5) I McFarland
Those desiring to carry on investigations in mycology should have had Botany 125c or the equivalent. Suitable work will be suggested to students desiring to enter this field.

213a-c RESEARCH IN SYSTEMATIC BOTANY. (5) I, II, III McFarland
Any student who has shown ability and initiative in Botany 150a and b or its equivalent and who is working on an advanced degree may be assigned to this course. The student may elect to work on the flora of the county in which he lives or on some local region or he may be assigned to work up some order or family of plants. A student may elect this course in the preparation of his collection which is to be incorporated in his thesis. **Prerequisite: Botany 150b.**

NOTE: Other courses such as Dendrology (19), Morphology of Algae (107), Seminar (115a-c), Morphology of the Fungi (125b,c), Mycology (126a, b), and Cyto-Genetics (134) will be given whenever there is sufficient demand.

CHEMISTRY

Professors Dawson, Quill†, Barkenbus, Bedford†, and Stewart; Associate Professor Meadow; Assistant Professors Grillot, Mitchell, and Wender; and Assistants.

LOWER DIVISION REQUIREMENTS—**Freshmen and Sophomore years**

For a major in chemistry the lower division requirements for the College of Arts and Sciences must be fulfilled.

Upper Division Requirements—Junior and Senior Years

Requirements in the Field of Concentration: Sixty quarter hours of advanced work in the field of physical sciences during the junior and senior years, including the major work.

Requirements for a Major. Prerequisite: 1a, 1b, 20, 21a, 21b, 21c, and Mathematics through the calculus. **Required:** 130a, 130b, 130c, 140a, 140b, 140c, 110a, 110b, 111, 133, 188a, 188b, 188c, and 16 quarter hours to be chosen from the field of physical science.

*1a, b **GENERAL CHEMISTRY.**
(5, 5) I, II, III, IV Dawson, Meadow, Grillot, Mitchell, and Wender
Chemistry of the non-metallic elements, and the metals. Lecture 2 hours; recitation, 1 hour; laboratory, 4 hours.

*2a, b **GENERAL CHEMISTRY FOR ENGINEERS.**
(5, 5) I, II, III Meadow, Grillot, Mitchell, and Wender
Lecture, 2 hours; recitation, 1 hour; laboratory, 4 hours.

*3a, b **CHEMISTRY FOR NURSES. (4, 4) I, III** Wender
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, 4 hours.

*20 **QUALITATIVE ANALYSIS. (6) I, II, III, IV** Staff
Lecture, 3 hours; laboratory, 6 hours. **Prerequisite: Chemistry 1b or 2b.**

21a-c **QUANTITATIVE ANALYSIS. (4, 4, 5) I, II, III, IV** Stewart
A laboratory course accompanied by lectures and classroom exercises. Gravimetric and volumetric methods of analysis are studied in detail. Lecture, 1 hour; laboratory, 6, 6, and 8 hours respectively. **Prerequisite: Chemistry 20.**

30a-c **ORGANIC CHEMISTRY. (5 ea.) I, II, III, IV** Barkenbus
Lecture, 3 hours; laboratory, 4 hours. **Prerequisite: Chemistry 1b.**

31 **ORGANIC CHEMISTRY FOR PRE-MEDICAL STUDENTS. (8) II, IV**
A special course designed only for students in the pre-medical curriculum. It will cover both aliphatic and cyclic compounds, and will be constructed to meet the minimum requirements for entrance to medical schools under the war program. This is a temporary course and will be given only two times a year. Lecture 4 hours; laboratory, 8 hours. **Prerequisite: Chemistry 1b or 2b.**

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to Freshmen.

37 ORGANIC CHEMISTRY. (6) II, IV Barkenbus and Grillot
An elementary course for non-professional students. Lecture, 4 hours; laboratory, 4 hours. **Prerequisite: Chemistry 1b or 2b.**

110a, b ADVANCED INORGANIC CHEMISTRY. (3 ea.) Dawson
A systematic course in inorganic chemistry with especial emphasis upon the periodic classification, valence, recent developments in this field, the various types of inorganic compounds, their preparation and reactions. The chemistry of the less common elements will also be included. General prerequisites must include acceptable courses in quantitative analysis and organic chemistry. Three lectures and recitations per week.

111 LABORATORY WORK IN INORGANIC CHEMISTRY.
(2) Meadow
Laboratory experiments will be chosen to illustrate (a) **Inorganic Preparations:** Methods of preparation of pure samples of the different classes of inorganic compounds. (b) **Techniques:** The study of newer and more difficult techniques in the field of inorganic synthesis. The use of liquefied gases, low and high temperature apparatus, high pressure and high vacua apparatus, etc. (c) **Less Common Elements:** The preparation of pure compounds of the less familiar elements using in most cases ores or industrial concentrates as starting materials. Six hours of laboratory. **Prerequisite: Chem. 110a or concurrent registration in Chem. 110a.**

120 ADVANCED QUALITATIVE ANALYSIS.
(5) Stewart and Grillot
A more comprehensive course in inorganic qualitative analysis than Chemistry 20. The course will include the separation and detection of the less common elements, and will employ a more rigorous physico-chemical approach to the theory of separation. Three hours of lecture; six hours of laboratory. **Prerequisite: Chem. 140c.**

121 SEMIMICRO QUANTITATIVE ANALYSIS. (3)
A laboratory course devoted to the quantitative analysis of both organic and inorganic substances by the use of semimicro techniques. One hour of lecture; nine hours of laboratory. **Prerequisite: Chem. 20.**

129a, b SELECTED PROBLEMS IN QUANTITATIVE ANALYSIS. (3, 2) I, II, III, IV Stewart
Laboratory, 9 hours and 6 hours respectively. Offered upon request. **Prerequisite: Chemistry 20.**

130a-c ORGANIC CHEMISTRY. (5 ea.) I, II, III, IV Barkenbus
A systematic study of organic compounds. Lectures, 3 hours; laboratory, 4 hours. **Prerequisite: Chemistry 1b or 2b.**

133 QUALITATIVE ORGANIC ANALYSIS. (5) I, III, IV Barkenbus
A systematic study of the separation and identification of organic compounds. Lecture, 1 hour; laboratory, 12 hours. **Prerequisite: Chemistry 130c or 30c.**

136a, b SYNTHETIC ORGANIC CHEMISTRY.
(2, 3) I, II, III, IV Barkenbus
A critical comparison of preparation methods accompanied by laboratory work and reports. Elective. Laboratory, 6 hours and 9 hours respectively. Offered upon request. **Prerequisite: Chemistry 130c or 30c.**

140a-c PHYSICAL CHEMISTRY. (5 ea.) I, II, III 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, 4, 3, and 3 hours; laboratory, 3, 6, and 3 hours, respectively. **Prerequisite: Chemistry 20, Math. 20b; Physics 3a or concurrent.**

141 INTERMEDIATE PHYSICAL CHEMISTRY. (4) I Bedford
Intermediate course. Lectures, 4 hours. Offered upon request. **Prerequisite: Chemistry 140c.**

142 INTERMEDIATE PHYSICAL CHEMISTRY. (2) I, II Bedford
Intermediate course. Laboratory, 6 hours. Offered upon request. **Prerequisite or concurrent: Chem. 141.**

143a, b PHYSICAL CHEMISTRY. (4, 4) II Bedford
For students in Agriculture and the Biological Sciences. Lectures and recitations, 3 hours; laboratory, 3 hours. Given yearly. **Prerequisites: Chemistry 37, 20; Physics 1c; Mathematics 17.**

150a-c PHYSIOLOGICAL CHEMISTRY.
(4 ea.) I, II, III Barkenbus
A study of the chemistry of living processes. Lectures, 2 hours; laboratory, 6 hours. Offered upon request. **Prerequisite: Chemistry 20, 130c.**

160 INDUSTRIAL CHEMISTRY. (3) I
A survey of the chemistry of manufacturing processes. Lecture, 3 hours. **Prerequisite: Chemistry 140c.**

161 INDUSTRIAL CHEMICAL CALCULATIONS. (4) II Bedford
Lecture and recitations, 4 hours. Given yearly. **Prerequisite: Chemistry 140c.**

181 CHEMICAL LITERATURE. (1) II
Training in the use of Chemical Literature. One hour weekly. Given yearly.

183 ELECTRO CHEMISTRY. (3) II Bedford
Elementary electro-analysis, electroplating and preparation of some inorganic and organic substance by electrolysis. Laboratory, 9 hours. Offered upon request. **Prerequisite: Chemistry 143b or 140c, 20, 130c.**

188a-c UNDERGRADUATE SEMINAR. (0, 1, 1) Staff
Reports and discussions on recent research and current chemical literature. Required of all seniors. Each senior is required to present a minimum of three reports to the student-faculty group for each quarter hour of credit earned. Attendance at the seminar for two quarters is required before the first quarter hour of credit is earned. One meeting per week.

210 SELECTED TOPICS IN INORGANIC CHEMISTRY.
(3) III Dawson
Some topics are: The chemistry of the rare earth elements; radiochemistry; the chemistry of the less common elements, etc.

The Following Courses Offered Upon Request

219 INORGANIC CHEMISTRY. (3) I, II, III Dawson and Meadow
Laboratory course on selected topics or research in inorganic chemistry. Laboratory, 9 hours. **Prerequisites: Chemistry 110a, b, and 111.**

229a QUANTATIVE ANALYSIS. (3) I, II, III, IV Stewart
Research. Laboratory, 9 hours.

229b QUANTITATIVE ANALYSIS. (3) I, II, III, IV Stewart
Continuation of 229a. Laboratory, 9 hours. **Prerequisite: 229a.**

239a ORGANIC CHEMISTRY. (3) I, II, III, IV Barkenbus
Laboratory, 9 hours. **Prerequisite: Chemistry 136b.**

239b ORGANIC CHEMISTRY. (3) I, II, III, IV Barkenbus
A continuation of 239a. Laboratory, 9 hours. **Prerequisite: Chemistry 239a.**

239c ORGANIC CHEMISTRY. (3) I, II, III, IV Barkenbus
A continuation of 239b. Laboratory, 9 hours. **Prerequisite: Chem. 239b.**

239d ORGANIC CHEMISTRY. (3) I, II, III, IV Barkenbus
A continuation of Chemistry 239c. Laboratory, 9 hours. **Prerequisite: 239c.**

240a PHYSICAL CHEMISTRY. (3) I Bedford
Lectures, 3 hours. **Prerequisite: Chemistry 141.**

240b PHYSICAL CHEMISTRY. (3) II Bedford
Continuation of 240a. Lectures, 3 hours. **Prerequisite: Chemistry 240a.**

249a PHYSICAL CHEMISTRY. (3) I, II, III Bedford
Laboratory course on selected topics, in advanced physical or electrochemistry. Laboratory, 9 hours. **Prerequisite or concurrent: Chemistry 240a.**

249b PHYSICAL CHEMISTRY. (3) I, II, III Bedford
Continuation of Chemistry 249a. Laboratory, 9 hours. **Prerequisite or concurrent: Chemistry 240a, 249a.**

288a-f GRADUATE SEMINAR. (1) I, II, III 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: Sixty quarter hours of advanced work in the field of Social Studies during the junior and senior years, including the major work.

Requirements for a Major. Prerequisites: Two courses in Economics, including Economics 1. **Required:** A minimum of 28 quarter hours 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 and 16b must be taken in the senior year to prepare for the required comprehensive examination.

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; *4—Resources and Industries; *7a and 7b—Principles of Accounting; *9—Business Organization; 15—Applied Economics; 16a and 16b—Tutorial Work in Economics; 102—Labor Problems; 103—Transportation; 104—Public Finance; 105—Money and Banking; 107—Statistical Method; 110—Business Cycles; 114—War Economics; 115—Value and Distribution Theory; 124—State and 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, Brady, and Gallaway; Associate Professor Fowler†; Assistant Professors Sutherland and Ward; Instructors Cutler, Irvine, Briggs and Harris; and Graduate Assistants Mrs. Clay, Miss Shropshire, Mr. Buckler, and Miss Thompson

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

Requirements in the Field of Concentration: Sixty quarter hours of advanced work in the field of Literature, Philosophy, and 3b. **Required:** A minimum of thirty quarter hours of advanced work in English, including English 100a, and 100b.

Requirements for a Major. Prerequisite: English 1a, 1b, 1c, 3a, and 3b. **Required:** A minimum of thirty quarter hours of advanced work in English, including English 100a and 100b.

English Language and Rhetoric

***1aD, bD ENGLISH COMPOSITION. (5, 5) I, II** Staff
This course is designed especially for students in the lowest two deciles.

***1a-c ENGLISH COMPOSITION. (3 ea.) I, II, III, IV** 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.

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* Open to Freshmen.
† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

***4a WRITTEN AND ORAL ENGLISH. (3) I** Cutler
This course is designed for freshmen primarily in the College of Arts and Sciences who are less proficient in writing and speaking English. It will differ from the regular freshman course in that emphasis will be placed upon oral expression. The work of the fall quarter will consist primarily of drill in grammar, written and spoken exercises, and some reading as a basis for oral expression. Admission by consent of the Head of the Department and the Dean.

***4b WRITTEN AND ORAL ENGLISH. (3) II** Cutler
This course is a continuation of English 4a. Less drill in grammar, with an increase in oral English. Systematic exercises in correct, expository spoken and written English. A minimum of reading as a basis for oral work.

***4c WRITTEN AND ORAL ENGLISH. (3) III** Cutler
This course is a continuation of 4b. It will be assumed that the student has a fair command of correct expression. Systematic practice in more extended expository expression. The reading required will be based upon the students' individual interests. Some letter writing will be done.

2a ADVANCED COMPOSITION. (3) 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. **Prerequisite: English 1a, 1b, and 1c.**

2b THE SHORT STORY. (3) 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. **Prerequisite: English 1a, 1b, and 1c.**

30 BUSINESS ENGLISH. (3) I, II, III
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. **Prerequisite: English 1a, 1b, and 1c.**

102 HISTORY OF THE ENGLISH LANGUAGE. (5) II Dantzler
A survey of the development of the language, based upon a text; other readings upon various phases of language development. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

125 PRONUNCIATION OF MODERN ENGLISH. (5) III Dantzler
A study of present day pronunciation; dialectical peculiarities. Students will become proficient in using a phonetic alphabet. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

English Literature

3a, b HISTORY OF ENGLISH LITERATURE. (5, 5) I, II, III, IV 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. **Prerequisite: English 1a, 1b, and 1c.**

* Open to Freshmen.

100a, b SENIOR REVIEW OF ENGLISH LITERATURE. (5, 5) I Staff
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. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b; and nine quarter hours in advanced courses in English.**

106a ENGLISH ROMANTIC POETRY. (5) 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; emphasis on Wordsworth, Byron, Shelley, Keats, and other prominent poets of the first quarter of the 19th century. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

106b ENGLISH ROMANTIC PROSE. (5) 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. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

107a VICTORIAN POETS. (5) II, IV 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, Swineburne, and Rossetti. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

107b VICTORIAN PROSE. (5) III Brady
A study of Carlyle, Ruskin, Newman, Spencer, 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. Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

108a, b PRINCIPLES OF LITERARY CRITICISM. (5, 5) I, II, IV 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. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

110a SHAKESPEARE—COMEDY. (5) I Farquhar
Shakespeare's comedies will be studied in detail. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

110b SHAKESPEARE—TRAGEDY. (5) II, III, IV Farquhar
A continuation of English 110a, which is not prerequisite, although desirable. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

111a, b THE EIGHTEENTH CENTURY NOVEL. (5, 5) II, III, IV Knight
Defoe, Richardson, Fielding, Sterne, Smollett, Fanny Burney and Jane Austen. This course is designed to serve as the first panel in a sequence of courses for the three regular quarters together with the Age of Pope and the Age of Johnson. **Prerequisite: English 1a, b, and 1c; 3a and 3b.**

123a AMERICAN LITERATURE BEFORE 1830. (5) I Knight
A survey intended to show the development of American life, thought, and letters up to the Transcendental movement. Emphasis upon Edwards, Paine, Franklin, Irving, Cooper, Bryant. **Prerequisite: 1a, 1b, and 1c; 3a and 3b**

123b AMERICAN LITERATURE AFTER 1830. (5) II, IV Knight
A continuation of 123a, which is not prerequisite. Beginning with the Transcendentalists, it studies the triumphant years of American romanticism, with especial attention to Emerson, Thoreau, Hawthorne, Melville, Poe, and Whitman. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

124 THE RENAISSANCE. (5) 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. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

127a, b LITERATURE OF THE BIBLE. (5, 5) II, III Farquhar
A literary study of the Bible by books. The purpose of the course is to develop an appreciation of literature because of the demand that literature identify itself with the highest thought and feeling. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

130a, b COMPARATIVE LITERATURE. (5, 5) II, III, IV 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. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

131a-d INDEPENDENT WORK. (3 ea.) I, II, III, IV Staff
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. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

133 THE DEVELOPMENT OF AMERICAN REALISM. (5) III 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. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

147 AGE OF JOHNSON. (5) I, IV Gallaway
From the death of Pope to 1798. Johnson and his circle: Burke, Goldsmith, Gray, Walpole, and Cowper. The pre-romantic movement. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

152 AGE OF POPE. (5) III Gallaway
Addison and Steele, Swift, Pope, and Defoe. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

155a, b CONTEMPORARY AMERICAN POETRY. (5, 5) I, II Farquhar
An examination of the forces which have created modern poetry in England and America since 1900. The course is historical, tracing literary and esthetic movements displayed in matter and style. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.**

170a, b BACKGROUNDS OF MODERN LITERATURE. Gallaway
(5, 5) I, II
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 surrealism will be evaluated. Mann, Proust, Romains, Yeats, Huxley, Lawrence, Joyce, and others. **Prerequisite: English 1a, 1b, and 1c; 3a and 3b.** Other courses open to Juniors and Seniors will be offered as registration may require.

210 SEMINAR. (5) I, II, III, IV 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.

213a, b SEMINAR. (5 ea.) I, II, III, IV 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.

216a SEMINAR (American Literature, 1890-1900). (5) Knight
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.

Other seminars for graduate students, as Old English, Victorian Literature, Cultural Studies in Criticism, and Contemporary American Literature will be offered from time to time as they may be requested.

Public Speaking

***6 THE ESSENTIALS OF SPEECH. (3) I, II, III** 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, b ELEMENTS OF PUBLIC SPEAKING. Sutherland
(5, 5) I, II, IV
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. **Prerequisite: English 1a, 1b, and 1c.**

10a PUBLIC SPEAKING. (3) I, II, III 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. **Prerequisite: English 1a, 1b, and 1c.**

10b PUBLIC SPEAKING. (3) II, III Sutherland
A continuation of English 10a. Reading, informal discussion, and argument.

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* Open to Freshmen.

11a, b ARGUMENTATION AND DEBATE. (5, 5) 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 economic phases of life. **Prerequisite: English 1a, 1b, and 1c.**

12a DEBATE PRACTICE. (3) I, III 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.

15a, b ORATORY. (3, 3) I Sutherland
The work in this course is devoted to advanced extempore speaking and to the study of the art of formal address. **Prerequisite: English 7a and 7b, or 10a and 10b.**

20 SPEECH TRAINING. (5) III, IV 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. **Prerequisite: English 1a, 1b, and 1c.**

Dramatic Arts

32 VOICE DEVELOPMENT. (5) I Briggs
This course is designed especially for those students interested in speech and dramatics. It attempts to establish good habits of speech through analyzing each student's voice and articulation, and to point out methods of correcting speech faults. Exercises for flexibility, range, relief from tension, and articulation. **Prerequisite: English 1a, 1b, and 1c.**

33 EXPRESSIVE READING. (5) II Briggs
This is a course in reading which is the logical successor to Voice Development although it may be taken without previous training. Emphasis is placed on the development of flexibility, musical quality, audibility, and clarity, in the reading of prose and poetry. The interpretation of logical content, attitude, emotional quality, and imaginative quality of literature is studied. A section of the course is devoted to the study and practice of choral reading. Recommended to those who plan to teach English. **Prerequisite: English 1a, 1b, and 1c.**

***34 HISTORY OF THE STAGE. (3) I** Briggs
This course is designed to give the student a knowledge of dramatic history in relation to the problems of staging. Emphasis is placed on those aspects of the development which are of specific interest to players and directors. The course of the drama is traced upon the background of the existing knowledge of the physical stage of each period studied. Laboratory work is offered to acquaint the student with the present day developments of historic devices and techniques of staging.

***35 STAGECRAFT. (3) II** Briggs
This is a course designed to teach the student the fundamentals of play production. It offers laboratory work which presents the technical problems of construction, painting of scenery, properties, and costuming. It is recommended to prepare the student to meet the problems presented in public school and community theatre staging.

***36 STAGING TECHNIQUES. (3) III** Briggs

This course is a continuation of Stagecraft which is not prerequisite, but desirable. Advanced problems of stage management, stage lighting and equipment, and specific types of modern staging, are considered, and practical experience is given the student in the design and execution of the various techniques. The student is given instruction in model-building and experimental stage design.

***37 STAGE PRODUCTIONS IN SCHOOL AND COMMUNITY. (3) IV** Briggs

This course is designed to meet the particular needs of teachers and community theatre workers. It will consider the problems of staging under circumscribed conditions and will discuss minimum essentials of play production and means of constructing or supplying these needs. Individual student problems will be considered in discussing practice of staging.

38 ORAL INTERPRETATION. (5) III Briggs

An advanced course in study, appreciation, and oral interpretation of selections chosen from the dramatic literature of the world. Training is given in vividness of expression in writing and in the rhythmic nature of oral expression. Each student will be required to prepare a program of interpretations as a quarter's project. Recommended to those who plan to teach English.

160 THEORY AND TECHNIQUE OF ACTING. (4) I Briggs

Theory of acting applied to individual problems and groups. Development of skill, effectiveness, and grace in the use of the body. Attention to establishing mood, reactions between characters, suspense, three voice modulations, pause, and other modes of emphasis, sustaining tone and emotion, projecting voice and characterization, procuring audience response, timing, and analysis of characterization. This course is designed to be helpful to public speakers, actors, teachers, and to those who wish to overcome self-consciousness and awkwardness and to develop grace of movement, and coordination of mind and body. **Prerequisite: English 1a, 1b, and 1c; 34a and 34b.**

161 THEORY AND TECHNIQUE OF THEATRE DIRECTING. (4) II Briggs

Practice in directing, theory of plotting and interpreting a play for directors. Study of movement, interpretation of lines, creation of atmosphere, use of stage areas, arrangement of furniture for actors, picturization, balance, use of levels, methods of achieving a climax, handling of groups, planning of mob scenes. Attention is given to the psychology of actors and audience reaction. Each student will have opportunities to direct plays under supervision. This course is designed for future workers in all types of theatres, especially for teachers who will have to direct plays as part of their regular work. **Prerequisite: English 1a, 1b, and 1c; 34a and 34b.**

162 THEORY AND TECHNIQUE OF THEATRE PRODUCING. (4) III Fowler

Intensive study of the practical problems of play production. Application of modern esthetic principles and theories of the theatre. Practice and demonstration of non-professional theatre producing. Attention to coordination of the playwright, designer, technical director, electrician, stage manager, and the actor, etc. **Prerequisite: English 1a, 1b, and 1c; 34a, and 34b.**

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* Open to Freshmen.

GEOGRAPHY

Professor Schwendeman

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

Requirements in the Field of Concentration: Sixty quarter hours of advanced work in the field of social studies and certain closely allied physical science fields.

Requirements for a Major: Prerequisites: Geography 1a and 1b; either Geography 2 or 10. A minimum of 24 hours of advanced work is required of which 16 hours will be in regional geography. The eight additional hours may be 4 hours in Cartography and 4 hours of field study and report. This latter selection will be especially for those planning graduate or professional work in geography.

***1a ELEMENTS OF GEOGRAPHY.**
(4) I, II, III, IV Schwendeman
This course will cover geographic concepts and skills necessary (1) for further work in geography, and (2) for certification requirements for students in elementary education; and a desirable course (a) for students as a credit in science in their program of general education, and (b) for students desiring a geographic background in other fields. **Topics:** Overview of the field of geography, location on the earth as a globe, maps as global representation, global reference systems, latitude, longitude and time, map projections with elementary projection, land forms, water bodies.

***1b ELEMENTS OF GEOGRAPHY—CLIMATOLOGY.**
(4) III Schwendeman
This course will cover the elements of climate as a major factor in man's natural environment. **Topics:** Nature and distribution of the climatic elements, and climatic controls and the classifications of world climates. Required of students specializing in Geography. **Prerequisite: Geography 1a.**

***2 REGIONAL GEOGRAPHY OF THE WORLD.**
(4) I, II, IV Schwendeman
An overview of man's adjustment to his natural environment on the basis of the great natural regions of the world. (Required for education students for elementary certificates). **Prerequisite: Geography 1b.**

***10 ECONOMIC GEOGRAPHY. (4) III, IV** Schwendeman
This will include a study of the natural resources of the world and the physical factors of the environment which influence their utilization.

101 GEOGRAPHY OF NORTH AMERICA.
(4) I, IV Schwendeman
This course considers the adjustment of man to the physical factors of the environment in each of the natural regions of North America, with the exception of Mexico.

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* Open to Freshmen.

102 REGIONAL GEOGRAPHY OF LATIN AMERICA.
(4) II, IV Schwendeman
This course will cover Mexico, West Indies, Central America, and South America. Adjustments to natural environment will be considered from the political and natural regions viewpoint. Occupations, resources, and products will thus be studied in both their national and regional development with trade relations.

104 GEOGRAPHY OF EUROPE AND AFRICA.
(4) III Schwendeman
An excellent study of contrasts in natural environment and progress. Comparisons are made with the western continents in their similar latitudinal extension.

106 GEOGRAPHY OF ASIA. (4) I, IV Schwendeman
Emphasis is given to the great population concentrations of India, China, and Japan, and to the problems of the Near East.

108 GEOGRAPHY OF OCEANIA AND THE PACIFIC AREA.
(4) II Schwendeman
The geographic factor in relation to some sixty million natives in the East Indies is analyzed. Special reference is made to the few million whites trying to develop the lands of Australia and New Zealand in the South Pacific. Also included are the strategic and economic significance of the Pacific Islands.

120 GEOGRAPHY OF KENTUCKY. (4) III, IV Schwendeman
Topics: Kentucky's geopolitical and geomatical position and relations as viewed on graphic and cradle globes and the Air-Age azimuthal equidistant map projected from the Lexington Airport. The surface features and drainage of Kentucky with Lobeck's physiographic diagram as a basis and McFarlan's Geology of Kentucky as a reference. Weather and climate with special reference to converging air masses and our changeable weather, using Visher as a reference. More recent climatological data from the U. S. Weather Bureau will be added. Population distribution in relation to the physical regions. Agricultural and industrial development and adjustments in relation to geographic factors. Kentucky's products in national and foreign markets. The geography of Kentucky's participation in national and foreign affairs. Geography and a program for the future. **No prerequisites.**

GEOLOGY

Professor McFarlan, Associate Professor Branson†, Assistant Professor and Curator Young, Assistant Professors Nelson† and Freeman, and Miss Quirke, Curator of Fossil Collections.

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

Requirements in the Field of Concentration: Sixty quarter hours in the field of Physical and Biological Science, including the major work, in courses not open to freshmen.

Requirements for a Major. Required: Geology 10a, 10b, 10c, 30a, 30b, 30c, 31a, 31b, 101a, 101b, 106a, 106b, 107a, 107b, 107c, 123a,

† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

123b, 118a or 118b, and 124a, 124b, and 124c. **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. (4) III** Branson
A course in general geology including the common minerals and rocks, geologic processes, and a brief discussion of historical geology. Three recitations and lectures and one laboratory conference a week.

10a FIELD GEOLOGY. (3) I Young
An introduction to field methods involving the identification and tracing of formations, areal mapping, and structure contouring. **Prerequisite: Geology 30a, 30b, and 30c.**

10b FIELD GEOLOGY. (3) II Young
The first half is devoted to the completion of the work outlined under 10a and the second half to an introduction of the work of 10c.

10c FIELD GEOLOGY. (3) III
Topographic mapping. Six hours of field work a week. **Prerequisite: Geology 30a, 30b, and 30c.**

12a ELEMENTARY GEOLOGY FOR ENGINEERS. (4) I Branson
An introduction to the principles of geology. Three recitations and one laboratory conference a week.

12b ELEMENTARY GEOLOGY FOR ENGINEERS. (3) II Branson
The practical application of geology to engineering work. A treatment of metallic and non-metallic mineral resources. Geologic Maps. Two lectures, one laboratory. **Prerequisite: Geology 12a.**

***14a-d ELEMENTARY FIELD GEOLOGY. (1 ea.) I, III, IV**
Visits are made to localities in the vicinity of Lexington to study local geologic phenomena.

***20a, b LABORATORY WORK IN ELEMENTARY GEOLOGY. (1, 1)**

***23a-b ELEMENTARY FIELD WORK IN REGIONAL GEOLOGY. (3, 3) IV** McFarlan and Young
Two weeks in the field in selected areas. The course is offered as a part of the first summer term and is planned for the student with only an introductory course in geology. The party works in conjunction with that in Geology 118a. **Prerequisite: Elementary Geology.**

30a GENERAL GEOLOGY. (5) I
Geological processes—a study of the forces and processes responsible for the features of the earth. Four lectures and one laboratory conference per week.

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* Open to Freshmen.

30b GENERAL GEOLOGY. (5) II
Historical Geology. A study of continental evolution and the development of plant and animal life. Four lectures and one laboratory conference per week.

30c GENERAL GEOLOGY. (5) III
Historical Geology. A continuation of Geology 30b.

31a LABORATORY WORK IN REGIONAL HISTORICAL GEOLOGY. (2, 2)
A study of selected geological maps and specimens covering the principal geologic regions of the United States. Two laboratory conferences per week. **Prerequisite: Geology 30a, 30b, and 30c.**

***50a, b OUTLINES OF GEOLOGY. (4, 4) I, II, III** McFarlan and Young
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 preceded by eight weeks' introduction to geological principles. Four lectures per week.

52 ELEMENTARY METEOROLOGY. (4)
An introduction to the physical processes controlling weather. Four lectures and recitations per week. **No prerequisite.**

53 PHYSIOGRAPHY OF NORTH AMERICA. (4)
A regional study of the physical regions of North America, land forms, their nature and origin. Four lectures per week. **Prerequisite: a course in Elementary Geography.**

101a PALEONTOLOGY. (4) I McFarlan
A study of fossil invertebrates, their nature, classification, and geological distribution. One lecture, three laboratory periods a week. **Prerequisite: Geology 30a, 30b, and 30c, and General Zoology, or a Zoological background.**

101b PALEONTOLOGY. (4) II McFarlan
A continuation of 101a directed toward the study of geological faunas and the determination of their age. One lecture, three laboratory periods a week. **Prerequisite: Geology 101a.**

105a, b INDEPENDENT WORK IN GEOLOGY. (4 ea.)
Directed work in independent investigations. Thesis required.

106a ECONOMIC GEOLOGY. (4) I Branson
Non-metallic mineral deposits. A study of the distribution, mode of occurence, origin, methods of search for and uses of deposits of economic importance. Three lectures, one laboratory conference per week. **Prerequisite: Geology 30a, 30b, and 30c; 31a and 31b; 123a and 123b.**

106b ECONOMIC GEOLOGY. (4) III Nelson
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. Three lectures, one laboratory conference per week. **Prerequisite: Geology 30a, 30b, and 30c; 31a and 31b; 123a and 123b.**

107a-i ADVANCED FIELD GEOLOGY. (3 ea.) I, II, III McFarlan
A field course in geologic mapping involving problems of local structure and stratigraphy. Six hours a week in the field. **Prerequisite: Geology 10a, 10b, and 10c**

* Open to Freshmen.

118a-d FIELD WORK IN REGIONAL GEOLOGY.
(3 ea.) IV McFarlan and Young
Three weeks in the field in selected areas, in a study of regional geology 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 term coming in between Commencement and the opening of the summer term. Required of major students at the end of their junior year. **Prerequisite: Geology 30a, 30b, and 30c; 31a and 31b.**

120a GEOLOGY OF KENTUCKY. (4) IV 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 characteristics and an explanation of its scenic and natural wonders. **No prerequisite.**

120b GEOLOGY OF KENTUCKY. (4) IV McFarlan
The mineral resources of the state, their distribution, origin, and uses. Fossil record. **No prerequisite.**

122 PETROLEUM GEOLOGY. (4) III Branson
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. Geology of the principal producing fields. Three lectures and one laboratory conference per week. **Prerequisite: Geology 30a, 30b, and 30c; 31a and 31b, and General Elementary Physics.**

123a MINERALOGY. (4) I Nelson
A study of geometrical crystallography and other physical properties useful in mineral identification. Two lectures and four hours' laboratory per week. **Prerequisite: Geology 30a, 30b, and 30c; 31a, and 31b; Chemistry 1a and 1b, or a background in Chemistry.**

123b MINERALOGY. (4) II Nelson
The determination of minerals by physical properties, blowpipe analysis, and the petrographic microscope. Includes a study of the origin, occurrence, and associations of these minerals. One lecture, six hours' laboratory per week. **Prerequisite: Geology 123a.**

124a-c REGIONAL GEOLOGY. (3 ea.) I, II, III Branson
A study of the geological regions of the United States.

125 METHODS OF SUBSURFACE CORRELATION. (4) Freeman
Methods and practice in subsurface stratigraphic work in petroleum geology. **Prerequisites: Geology 123a and 123b.**

126a-c SEMINAR. (1 ea.) I, II, III Staff

208 STRUCTURAL GEOLOGY. (4) 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. Four lectures and recitations or three lectures and one laboratory. **Prerequisite: Physics 1a and 1b; Geology 30a, 30b, and 30c; 31a and 31b; 124a, 124b, and 124c.**

210a STRATIGRAPHIC PALEONTOLOGY. (4) McFarlan
The succession of Paleozoic faunas and their use for stratigraphic correlations. One lecture, three laboratory periods per week. **Prerequisite: Geology 30a, 30b, and 30c; 31a and 31b; 101a and 101b.**

210b STRATIGRAPHIC PALEONTOLOGY. (4) McFarlan
A continuation of 210a dealing with Mesozoic and Cenozoic faunas. One lecture, three laboratory periods per week.

212a PETROLOGY: OPTICAL MINERALOGY. (4) 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 three laboratory periods per week. **Prerequisite: Geology 123a and 123b; Physics 1a and 1b.**

212b SEDIMENTARY PETROLOGY. (4) Nelson
A study of sedimentary rocks based on microscopical analysis. One lecture and three laboratory periods per week. **Prerequisite: Geology 212a.**

217a-f SEMINAR. (1 ea.) I, II, III

GERMAN LANGUAGE AND LITERATURE

Professor Bigge†, Associate Professor Hegeman, Assistant Professor Whitaker†, and Miss Odor.

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

Requirements in the field of Concentration: Sixty quarter hours 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, and 2b. **Required:** A minimum of 27 quarter hours of advanced work, independent of tutorial courses. Major students are required to enroll in tutorial courses, giving one hour each quarter in the junior and two in the senior year, 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 quarter 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. (5) I, II, III, IV** 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. (5) I, II, III, IV** Staff
Continuation of German 1a, with more extended exercise in easy reading, writing and pronunciation. **Prerequisite: German 1a or one high school unit.**

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to Freshmen.

2a INTERMEDIATE GERMAN. (4) I, II, III, IV 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. (4) I, II, III, IV Staff
Continuation of German 2a. Selected readings. **Prerequisite: German 2a.**

3a-b SELECTED READINGS. (4, 4) I, II, III, IV Bigge
Prose and poetry from standard German authors with brief outline of German literature. **Prerequisite: German 2b.**

10a-b GERMAN CONVERSATION AND COMPOSITION. (3, 3) I, II, III Staff
This course is conducted mainly in German. The first quarter's work will be closely based upon a textbook, but in the second quarter opportunity will be given for the composition of original themes. **Prerequisite: German 1b or its equivalent.**

101a, b NINETEENTH CENTURY LITERATURE. (4, 4) I, II Staff
Studies in German literature of the 19th Century with special emphasis on selected authors. **Prerequisite: 3a or 3b.**

102a, b TWENTIETH CENTURY LITERATURE. (4, 4) III, IV Bigge
Reading, discussions, and reports. **Prerequisite: 3a or 3b.**

103a, b LIFE AND WORKS OF GOETHE. (4, 4) I, II, III 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. **Prerequisite: 3a or 3b.**

105a-d INDEPENDENT WORK IN GERMAN. (4 ea.) I, II, III, IV Staff
This course is designed for students who wish to do advanced work on any topic in the field of German literature. It is not limited to majors in the department.

106a, b SCIENTIFIC GERMAN. (4, 4) I, II, III, IV Staff
This course is designed primarily for the students of the physical 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. **Prerequisite: 2b.**

120a, b JUNIOR TUTORIAL WORK IN GERMAN. (1, 1) I, II Staff

130a, b SENIOR TUTORIAL WORK IN GERMAN. (2, 2) III, IV Staff

201a, b MIDDLE HIGH GERMAN. (4) I, II, III 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.

203a, b GERMAN LITERATURE FROM LUTHER TO LESSING. (4, 4) I, II, III 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.

HISTORY

Professors Tuthill†, Clark, Knapp, and Dupre†; Assistant Professors Lunde and Carson; and Instructors Hopkins†, Wall, and Taylor

The introductory courses—2a and 2b in British history, 4a and 4b in European history, and 5a and 5b in American history—will aid freshmen in subsequent courses in history, commerce, law, education, journalism, and literature.

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

Requirements in the Field of Concentration: Sixty quarter hours 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 and 2b, **or** 4a, 4b, 5a, **and** 5b. Required: a minimum of 27 quarter hours of advanced courses in history, including the Senior Seminar.

*1a **THE ANCIENT WORLD. (3) I**
The Near East and Pre-Grecian Period. Egypt, Babylonia, Assyria, Persia, and Palestine.

*1b **THE ANCIENT WORLD. (3) II**
History of Greece. A continuation of Course 1a.

*1c **THE ANCIENT WORLD. (3) III**
History of Rome and the Roman Empire. Continuation of 1a, 1b.

*2a **HISTORY OF THE BRITISH PEOPLE TO THE RESTORATION. (5) I, II, III, IV**
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. (5) I, II, III, IV**
From the Stuart period to the present. A continuation of 2a.

*4a **MODERN EUROPE TO THE FRENCH REVOLUTION.**
(5) I, II, III, IV Lunde and Carson
A survey of the growth of Europe from the decline of the Roman Empire to the French Revolution.

*4b **MODERN EUROPE SINCE THE FRENCH REVOLUTION.**
(5) I, II, III, IV Lunde and Carson
A survey of European developments from the French Revolution to the present. A continuation of course 4a.

*5a **HISTORY OF THE UNITED STATES THROUGH 1865.**
(5) I, II, III, IV Clark, Knapp, Wall, and Taylor
This course traces the nation's development through 1865. It is designed to meet the demands for a general understanding of American history. This course fulfills the requirements for the elementary teachers' certificate.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to Freshmen.

*5b **HISTORY OF THE UNITED STATES SINCE 1865.**
(5) I, II, III, IV Clark, Knapp, Wall, and Taylor
A continuation of Course 5a, from 1865 to the present.

*30 **RISE OF THE AMERICAN NATIONALITY.**
(5) I, II, III, IV Wall and Taylor
This course will survey the story of the American People with the major emphasis upon the influence of inventions and discoveries and technological and industrial improvements which have molded and influenced their social and cultural achievements. Factors which have tended to promote social and industrial development of American life will be related to the Nation's growth. Not open to students who have had History 5a or 5b.

40 **HISTORY OF KENTUCKY. (3) I, II, III, IV** Clark
A general survey of the chief periods of Kentucky's growth and development from 1750 to the present.

I. American History

100a **THE DIPLOMACY AND FOREIGN POLICY OF THE UNITED STATES TO 1898. (4) II** Hopkins
A survey designed to acquaint the student with the principles of American foreign policy and its historical evolution. **Prerequisite: Course 5a or equivalent.**

100b **THE DIPLOMACY AND FOREIGN POLICY OF THE UNITED STATES SINCE 1898. (4) III**
A continuation of course 100a. Foreign policy after the United States becomes a world power. **Prerequisite: Course 5b or equivalent.**

105 **COLONIAL AMERICA. (4) II** Knapp
A study of the origins of the English colonies; their political, social, and economic development; extension of their frontiers, intercolonial wars, and external relations with the Dutch, French, and Spanish. Emphasis on imperial policies and imperial control and the colonial controversies.
Prerequisite: One year of American or European History.

106a **COLONIAL LATIN AMERICA. (3) II** Knapp
A survey of the origins and development of the Latin American Colonies and their struggle for independence.

106b **LATIN AMERICAN REPUBLICS. (3) III** Knapp
This course will involve a study of the political, economic, and social institutions, and problems of the Latin American Republics from attainment of independence to the present.

116a, b **SENIOR SEMINAR. (2, 2)** Staff
A course for seniors designed to present the bibliography and literature in selected fields of history.

140a, b **INDEPENDENT WORK. (3 ea.)** Staff
Under special conditions selected students may investigate special problems, with weekly reports to the instructor.

141 **TUTORIAL READING. (1)** Staff

* Open to Freshmen.

147 RECENT HISTORY OF THE UNITED STATES. (4) I 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. (4) I Clark
A course dealing specifically with American westward expansion. This course will consider the westward movement in respect to population, political, economic, social, and cultural development; analyze the process of national adjustments; and weigh the contributions of each succeeding period. **Prerequisite: History 5a and 5b** or equivalent

151b THE AMERICAN FRONTIER. (4) II Clark
A continuation of Course 151a. It will consider the Trans-Mississippi West.

180a HISTORY OF THE OLD SOUTH. (4) II Clark
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. (4) III 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. (3) III 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.

The "200" Group

These are content courses presented by the lecture and discussion method and as such are distinct from those numbered "300" and which are concerned with problems and the practice of research.

280 EUROPEAN HISTORIOGRAPHY. (3) I Carson and Tuthill

281 AMERICAN HISTORIOGRAPHY. (3) Clark and Knapp

282 HISTORICAL CRITICISM. (3) Staff

The "300" Group

Seminars—Basically research in character. These are not content courses. They provide intensive 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, b SEMINAR IN AMERICAN FOREIGN POLICY. (4, 4) I, II
Problems selected in critical periods in American foreign policy, particularly from the Spanish-American War. A seminar paper,

based upon research in source materials, to be presented and defended in the seminar group.

342 **SEMINAR IN KENTUCKY HISTORY.** (3) I 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.

II. England and the British Empire

131a **ENGLISH CONSTITUTIONAL HISTORY TO 1603.** (4) I
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. **Prerequisite: History 2a or equivalent.**

131b **ENGLISH CONSTITUTIONAL HISTORY SINCE 1603.** (4) II
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. **Prerequisite: History 2b or equivalent.**

134 **HISTORY OF CANADA.** (4)
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. **Prerequisite: One year of College History.**

135a **THE BRITISH EMPIRE TO 1860.** (4) I
Origin of the British Empire, 1873 to 1860; development of British sea power: The early growth and development of Canada, Australia, New Zealand, South Africa, and India. Lectures, class discussions, readings, and reports.

135b **THE BRITISH EMPIRE SINCE 1860.** (4) II
A continuation of 135a. Great Britain and the growth of the Dominions and the Commonwealth since 1860. Emphasis will be placed upon the Dominion of Canada and extension of the dominion idea to other parts of the Empire. **Prerequisite: 2a, b.**

138 **BRITISH SOCIAL HISTORY DURING THE TUDOR PERIOD. 1485-1603.** (3) III
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, dis cussions, and reports. **Prerequisite: History 2a.**

III. European History

114 **THE RENAISSANCE IN THE SOUTH.** (4) I Tuthill and Carson
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.** (4) II Tuthill and Carson
A continuation of Course 114 with reference to the awakening of the new spirit in France, England, and Germany; and the background of the Reformation period.

119a THE FRENCH REVOLUTION AND NAPOLEON. Tuthill and Carson
(4) III
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.

119b EUROPE IN THE NINETEENTH CENTURY. Tuthill and Carson
(4) II
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 developments of European life after 1815; the expansion of Europe in Africa and Asia, and the reactions upon the great states of the world.

120 EUROPE IN THE TWENTIETH CENTURY. Tuthill and Carson
(4) III
A study of recent and contemporary movements. 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.

121 SOCIAL AND POLITICAL FACTORS IN CONTEMPORARY CIVILIZATION. (3) IV Carson
The crisis in world history due to the challenge to the capitalistic democracies by communism and fascism, and to the revolution in international relations precipitated by the Second World War; special emphasis upon tensions, conflicts, and solutions in the United States.

171 EUROPE IN THE EIGHTEENTH CENTURY. (3) I Lunde
A study of the development of the absolute monarchies from Louis XIV; the European rivalries at home and abroad; benevolent despotism, and the age of the Enlightenment. Considerable attention will be given to the social and cultural aspects of the period. **Prerequisite: History 4a or equivalent.**

176 FRANCE SINCE 1870. (3) IV Carson
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. (5) I, III Carson
German politics, culture, colonies, and international relations under Bismarck's Germany; the Empire, the Weimar Republic, and Nazi Germany under Hitler. Readings, reports, lectures, and discussions. **Prerequisite: History 4b or equivalent.**

320a, b ORIGINS OF WORLD WAR I (4, 4) Tuthill and Carson
Seminar

331 SEMINAR IN MODERN BRITISH HISTORY. (4)

350a, b SEMINAR IN THE FRENCH REVOLUTION. (4, 4) I, II Carson
Problems selected in the decade of revolution, 1789-1799. A seminar paper based upon research in the official **Moniteur,** in the public documents, and in the memoirs of the period, to be presented and defended in the seminar group. **A reading knowledge of French is essential.**

HYGIENE AND PUBLIC HEALTH

Professor Chambers; Associate Professors Griffin†, Heinz, and Hamilton; Assistant Professor Cawood; and Dr. McChord, Dr. Doyle, Dr. Thomas†, and Dr. Frey.

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

Requirements in the Field of Concentration: Sixty quarter hours 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. Prerequisite: 18 quarter hours in Biological Sciences. **Required:** Bacteriology 103 or its equivalent. A minimum of 22 quarter hours of advanced work in Hygiene and Public Health.

***1 PERSONAL AND COMMUNITY HEALTH.**
(2) I, II, III Heinz and Hamilton
Lectures and recitations. An introduction to the principles of personal and community health.

7 FIRST AID. (3) I, III Staff
Meets the standard Red Cross requirements in first aid and leads to a Red Cross certificate which will be awarded to each member of the class who completes the course and satisfactorily passes the final examination. Special consideration also given to the first aid problems of playground directors, coaches, and athletes. Lectures, discussions, demonstrations, and explanation of first aid methods and principles, followed by actual practice work for each student.

***9 HYGIENE FOR TEACHERS. (3) I, II, III, IV** Heinz
The purpose of the course is to acquaint the student 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 or Secondary School Certificate. Open only to prospective teachers.

51 PERSONAL HEALTH PROBLEMS. (3) I, II, III, IV
Heinz and Hamilton
A course involving the detailed study of certain practical health problems of the present day. Presentation of essential health knowledge with enough anatomy, physiology, and other underlying sciences to clarify and support the health teaching. Not available for credit to students who have had Hygiene 1. The course may be used by Sophomores, Juniors, and Seniors to meet the general hygiene requirement.

100a PUBLIC HEALTH. (4) I, III, IV Heinz
A consideration of the cause, prevalence, transmission, and control of preventable diseases.

100b PUBLIC HEALTH. (4) II, IV Heinz
A continuation of 100a. Environmental and organization approach to disease prevention.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to Freshmen.

104 MATERNAL AND CHILD HEALTH. (3) II, IV Griffin

Problems in maternal and child health from the standpoint of the public health nurse.

110 HEALTH EDUCATION. (4) II, IV Heinz

A course dealing primarily with principles of health education, health service, and health protection. Intended to consider also the co-operative nature of school health work through study of problems in the solution of which contributions are made by parents, the school, and the community.

111a, b INDEPENDENT WORK IN HYGIENE AND PUBLIC HEALTH. (4, 4) I, II, III, IV Heinz

115 COMMUNICABLE DISEASES. (4) II, IV 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.

118 VITAL STATISTICS. (4) III, IV Heinz

Statistics of population, deaths, births, and morbidity; the collection and analysis of vital statistics.

120a MENTAL HYGIENE. (4) I, III Ratliff

An introduction to mental hygiene including a consideration of the cause, treatment, and prevention of mental disorders. Not open to students who have credit in Psychology 124.

120b MENTAL HYGIENE OBSERVATION. (4) II Ratliff

A continuation of Hygiene 120a. Students are given the opportunity to apply to concrete cases the principles and concepts developed in 120a.

122 SCHOOL AND COMMUNITY HEALTH. (3) I, III 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.

125a COUNTY HEALTH PRACTICE FOR PUBLIC HEALTH NURSES. (3) IV Cawood

Lectures and recitations on the purposes, development, practice, and techniques of local health work.

125b-e COUNTY HEALTH PRACTICE FOR PUBLIC HEALTH NURSES. (4 ea.) I. II, IV 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.

150a, b PROBLEMS IN HEALTH EDUCATION. (3, 3) III, IV Heinz

An individual problems course for students and teachers in service, based upon a systematic attack upon the health problems of a school.

Other courses for Upper Division and Graduate Students, such as Public Health Nursing (124a, b), 200 courses for Health Officers (225a, b), and others are given from time to time.

JOURNALISM

Professor Plummer, Associate Professor Tucker, and Assistant Professors McLaughlin and Portmann

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

Requirements in Field of Concentration: Sixty quarter hours 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. Prerequisite: Journalism 2, 20a, and 20b. **Required:** Journalism 104a, 104b, 105, 106, 107, 108, 123a, 123b, 127, and 90.

The Degree of A.B. in Journalism. Three sequences leading to the degree of A.B. in Journalism are outlined on pages 64, 65.

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.

*2 **INTRODUCTION TO JOURNALISM.** (3) I, II, III, IV Plummer
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 its branches.

10a, b **SURVEY OF JOURNALISM.** (4, 4) I, II, III, IV 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.

20a **NEWS REPORTING.**
(5) I, II, III, IV Plummer, Tucker, and Portmann
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 2.**

20b **NEWS REPORTING.**
(5) II, III, IV Plummer, Tucker, and Portmann
A continuation of Journalism 20a with emphasis on specialized reporting such as society, sports, crime, politics, weather, and science. **Prerequisite: Journalism 20a.**

21 **ETYMOLOGY.** (4) I, II, III, IV Plummer and Tucker
A study of words and their fundamental values with reference to development of a writing vocabulary.

102 **COMMUNITY JOURNALISM.** (4) I, IV Portmann
A study of the problems which confront the community weekly and the small city daily. **Prerequisite: Journalism 20b.**

* Open to Freshmen.

103 NEWSPAPER ADMINISTRATION. (4) II, IV Portmann
A study of the business, circulation, advertising, and accounting divisions of the newspaper with special emphasis on the community newspapers. **Prerequisite: Journalism 20b.**

104a COPYREADING AND TYPOGRAPHY. (5) I Tucker and Portmann
Instruction and practice in newspaper desk work. Lectures and practice in copyreading and headline writing, exercises in news typography. No credit for 104a until 104b is completed. Lecture, 1 hour; copyreading laboratory, 4 hours; typography laboratory, 4 hours. **Prerequisite: Journalism 20b.**

104b MAKEUP AND TYPOGRAPHY. (5) II Tucker and Portmann
A continuation of Journalism 104a. Instruction and practice in newspaper desk work, copy editing and page makeup, coordination of editing and typography for makeup practice. Lecture, 1 hour; copyreading laboratory, 4 hours; typography laboratory, 4 hours. **Prerequisite: Journalism 104a.**

105 LAW OF THE PRESS. (3) III Plummer
A study of the special laws of libel, copyright, and regulatory provisions that pertain to the press. **Prerequisite: Journalism 20b.**

106 INFLUENCE OF THE NEWSPAPER. (4) 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. **Prerequisite: Journalism 20b and senior standing.**

107 EDITORIAL WRITING. (3) III Tucker
A study of editorials, editorial columns, and editorial pages. Publication of copy encouraged. **Prerequisite: Journalism 20b and senior standing.**

108 HISTORY OF JOURNALISM. (4) II Portmann
A study of the rise and development of American journalism and newspapers. **Prerequisite: Journalism 20b and senior standing.**

110 SUPERVISION OF HIGH SCHOOL PUBLICATIONS. (4) III, IV 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.

111 VERBAL CRITICISM. (4) I, III, IV Tucker
A study of words and their synonyms with reference to developing accuracy in use of the English language in journalistic work.

112 CRITICAL WRITING FOR THE PRESS. (4) I, II, III, IV 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.

115 ADVERTISING TYPOGRAPHY AND LAYOUT. (4) I, III, IV Portmann
A study of the principles of typographic families and illustrations and decorations that pertain to layout in modern advertising. Practical work with merchants included in the latter part of the course. Lecture, 2 hours; laboratory, 4 hours.

118 PUBLICITY. (4) III, IV Plummer
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.

120 SEMINAR IN PUBLIC OPINION. (4) III 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. **Prerequisite: Senior or graduate standing.**

123a FEATURE WRITING. (3) II Tucker
Instruction and practice in writing features. Lectures, readings, and reports directed toward discovering, gathering, organizing, writing, and marketing feature articles. **Prerequisite: Journalism 20b.**

123b FEATURE WRITING. (3) III Tucker
A continuation of Journalism 123a with emphasis on writing, illustrating, and marketing features for newspaper supplements, trade journals, and other periodicals.

125 MAGAZINE ARTICLE WRITING. (4) IV 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.

127 REPORTING PUBLIC AFFAIRS. (3) III Plummer
Instruction and practice in reporting the news originating in courts and other public institutions and the news of politics, finance, and labor. Lecture, 2 hours; laboratory, 2 hours. **Prerequisite: Journalism 20b and senior standing.**

90 TUTORIAL WORK IN JOURNALISM. (1) III Staff
Open only to majors and candidates for the degree in journalism. **Prerequisite: Senior standing.**

LIBRARY SCIENCE

Margaret I. King, Acting Head; Professor Logsdon†; Associate Professors Martin and Wofford; and Miss Bull, Miss Galloway, and Miss Wallace

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

Requirements in Field of Concentration: Sixty quarter hours of advanced work in the Field of Literature, Philosophy and the Arts, or acceptable equivalent, including the major work.

Requirements for a Major. Prerequisite: Senior standing. Prospective majors should consult with the Head of the Department regarding courses to be taken during the first three years of college. A broad academic program with emphasis on literature, language, and the social sciences is recommended. Previous experience in library work and facility in the use of the typewriter are considered assets. **Required courses:** The full professional curriculum of 45 quarter hours.

† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

Courses recommended for teacher-librarians: High schools with enrollment of 100 or less, 9 quarter hours in courses 126 and 150b; High schools with enrollment of 100 to 200 students, 18 quarter hours in courses 126, 128, 129a, 133a, and 150b.

Requirements for the Degree of Bachelor of Science In Library Science

Prerequisites: A Bachelor's degree from an approved college or university. Undergraduate preparation should emphasize academic rather than professional courses, with emphasis on literature, languages, and the social sciences. Previous experience in library work and facility in the use of the typewriter are considered assets. **Required courses:** The full professional curriculum of 45 quarter hours.

General Courses

*25 **USE OF THE LIBRARY. (3) I, II, III** King and Martin

A practical survey of library book resources, tools, and services; designed to aid the college student in his study, research, and recreational reading.

Professional Courses

126 **PLACE, FUNCTION, AND ADMINISTRATION OF THE LIBRARY. (5) I, IV** Wofford

A study of the place, function, and administration of the library in the modern school, college, and community, and of the relationship of the library and librarian to the faculty, students, and public. Major 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.**

128 **CHILDREN'S LITERATURE. (3) III, IV** Martin

A survey of children's books with a comparative study of representative types from pre-school to junior high school age; illustrations and editions, book reviewing periodicals, aids in the selection of children's books and magazines. **Closely correlated with L.S. 132.**

129a, b **CATALOGING AND CLASSIFICATION. (3, 3) I, IV** Wofford

A study of the principles and forms of classification and cataloging as devices for organizing and arranging printed materials to facilitate library service. Practice work under supervision is required.

132 **LIBRARY WORK WITH CHILDREN. (3) III, IV** Martin

A study of the origin and present status of library work with children in school and public libraries. Units of the course include story-telling and other methods of developing the child's appreciation of literature; administration of library work with children; and elementary school library service. **Prerequisite: L.S. 126.**

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* Open to Freshmen.

133a, b REFERENCE AND BIBLIOGRAPHY. (3, 4) I, IV Bull
A study of the essential reference works, particularly those most valuable in school and college libraries, including dictionaries, encyclopedias, atlases, yearbooks, 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.

138 INTERPRETATION OF LIBRARY SERVICES. (3) III Wofford
The course emphasizes various means of interpreting library service to readers. General topics covered are: formal and informal instructions in the use of the library, library publicity, and public relations of the library. Special attention is given to newer types of instructional devices available to libraries. **Prerequisite: L.S. 126, 133a, 150a.**

139 FIELD WORK. (3) III Galloway and Wofford
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 School and nearby school systems. The course is supplemented by seminar discussions. Six hours per week. **Prerequisite: L. S. 126, 129a, 129b, 133a, 133b 144, 150a, and 150b.**

144 LIBRARY RECORDS AND METHODS. (3) II, IV Wofford
A course presenting the fundamental knowledge and techniques necessary to the development of efficient library procedures for the acquisition, preparation, care, circulation, and use of books and of non-book materials, including periodicals, and audio visual aids. The application of modern business methods to library procedures is emphasized.

150a BOOK SELECTION. (4) I, IV Martin
Study of principles and standards in the choice of books and pamphlets. Includes practical problems in the selection of books; brief study of American publishers and publishing; critical examination of book reviewing periodicals, manuals, and lists. Practice in oral and written reviews, reading and evaluation of typical books on philosophy, religion, social and natural science, useful and fine arts, travel, and history.

150b BOOK SELECTION. (4) II Martin
Continuation of the reading and evaluation of typical books in the fields of biography, fiction, and literature (short stories, essays, poetry, and drama). Attention is given to reading interests of young people and the values in books selected for them. Book selection aids for high school libraries are examined, and one unit each is devoted to magazines and to problems leading to and methods of dealing with remedial reading.

154 SEMINAR. (3) III Wofford
A survey of the field of library science through a brief study of the modern library movements 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 librarian. **Prerequisite: L.S. 126, 129a, b, 133a, b, 150a, b.**

Note: The following courses will be given as a demand for them justifies: 101a-d (Independent Work); 105 (Reading Guidance); 107 (Function and Use of the Library in the School).

MATHEMATICS AND ASTRONOMY

Dean Boyd, Professors Latimer, Downing and Cohen†; Associate Professors LeStourgeon†, South, and John†; Assistant Professors Brown and Pence; and Mrs. Fischer, Mr. Donaldson, and Mrs. Crawley

Mathematics

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

Requirements in the Field of Concentration: Sixty quarter hours of advanced work in the field of Physical Science during the junior and senior years, including the major work.

Requirements for a Major. Prerequisite: Math. and Ast. 2, 3, 17, 19, 20a, and 20b. **Required:** A minimum of 27 quarter hours of advanced work in mathematics, including one course in Algebra, one in Geometry, one in Analysis, and one in Applications. Major students are required to enroll in tutorial courses for four quarters 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 18 quarter hours of mathematics beyond elementary calculus before counting work toward an advanced degree.

***D ELEMENTARY MATHEMATICS. (0) I, II**
A study of the elementary mathematical principles and operations that are essential to the comprehension of college courses in science.

***2 SOLID GEOMETRY. (4) II, III** Staff
For those who have not had the subject in high school. It is a prerequisite for analytics.

***3 PLANE TRIGONOMETRY. (5) I, II, III, IV** Staff
The usual course in plane trigonometry. **Prerequisite: 1½ units High School Algebra, or 5a.**

***5a COLLEGE ALGEBRA. (4, 2) I, II** Staff
A course designed for those students who have had high school algebra but whose preparation is inadequate for a standard course in college algebra. **Prerequisite: Math. and Ast. D or its equivalent as determined by the Department of Mathematics and Astronomy from the University placement tests. The course will carry 2 quarter hours' credit for students who have presented 1½ or more units of Algebra for entrance.**

***5b COLLEGE ALGEBRA. (4, 3) II, III** Staff
A continuation of 5a. Completion of material in Math. and Ast. 17. **Prerequisite: Math. and Ast. 5a. The course will carry 3 quarter hours for students who have presented 1½ or more units of algebra for entrance.**

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to Freshmen.

*15 **MATHEMATICS OF FINANCE.** (4) II — Staff
A study of simple interest, simple discount, compound interest, annuities. Applications to solutions of problems in amortization, sinking funds, valuations of bonds. Primarily for Commerce students. **Prerequisite: Math. and Ast. 5a and 5b or 17.**

*17 **COLLEGE ALGEBRA.** (5) I, II, III, IV — Staff
The standard course. A review of quadratic equations; includes simultaneous quadratics, variations, permutations and combinations, and theory of equations. **Prerequisite: 1½ units high school algebra and an adequate preparation for a standard course in college algebra, as determined by the Department of Mathematics and Astronomy from the University placement tests, or 1 unit high school algebra and an adequate knowledge of the fundamental mathematical operations as determined by the department from the University placement tests.**

*19 **PLANE AND SOLID ANALYTIC GEOMETRY.** (5) II, III, IV — Staff
The standard elementary course. **Prerequisite: Math. and Ast. 5a and 5b or 17, 2, and 3**

20a **DIFFERENTIAL CALCULUS.** (5) I, II, IV — Staff
The course covers elementary differential calculus and an introduction to the integral. **Prerequisite: Math. and Ast. 19.**

20b **INTEGRAL CALCULUS.** (5) I, II, III, IV — Staff
Completing the course in elementary calculus. **Prerequisite: Math. and Ast. 20a and 2.**

11 **SPHERICAL TRIGONOMETRY.** (3) III — Downing
Primarily for Civil Engineers. Three hours a week. **Prerequisite: Math. and Ast. 3.**

12 **LEAST SQUARES.** (3) III — Downing
Primarily for Civil Engineers. Three hours a week. **Prerequisite: Math. and Ast. 19.**

16a-f **TUTORIAL WORK IN MATHEMATICS.**
(1 ea.) I, II, III — Senior Staff
Open only to A. & S. majors in mathematics.

*24 **ELEMENTARY THEORY OF STATISTICS.** (3) III — 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.**

25 **INTERMEDIATE CALCULUS.** (4) II, III — Downing
Purpose: To bridge the gap between the Integral Calculus and Advanced Calculus. Contents: To include such topics as Limits, Continuity, Curvature, Mean Value Theorem and Indeterminate Forms, Series Expansions of Functions, Hyperbolic Functions, Partial Differentiation, Properties of Definite Integrals, Reduction Formulas in Integration, and other advanced forms of Integrals.

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* Open to Freshmen.

102 VECTOR ANALYSIS. (4) II LeStourgeon
An elementary course in the algebra and calculus of vectors with numerous applications to geometry and physics. **Prerequisite: Math. and Ast. 20b.**

103 THEORY OF EQUATIONS. (4) I Latimer
This course is based on Dickson's First Course in the Theory of Equations, which is used as a text. **Prerequisite: Math. and Ast. 20a.**

105a DIFFERENTIAL EQUATIONS.
(4) I, II, III LeStourgeon and Pence
A first course in differential equations based on A. Cohen's text. **Prerequisite: Math. and Ast. 20b.**

107 PROJECTIVE GEOMETRY. (4) III Pence
A brief course in synthetic projective geometry. **Prerequisite: Math.** and Ast. 20a.

110a-f INDEPENDENT WORK IN MATHEMATICS.
(4 ea.) I, II, III Senior Staff
Limited to upper division and graduate students of high standing. **Prerequisite: Math. and Ast. 20b.**

116 ANALYTICAL MECHANICS. (4) III Downing
Topics included: Composition and resolution of forces; statics of a particle; moments; couples; center of gravity; friction; simple harmonic motion; constrained motion; work; energy; inertia; impulse. **Prerequisite: Math. and Ast. 20b.**

119 MODERN GEOMETRY. (4) II Boyd
A course covering the subject substantially as presented in Altschiller-Court's text. **Prerequisite: Math. and Ast. 20a.**

120 MATHEMATICAL STATISTICS. (4) III South
Topics considered: Averages, coefficients of dispersion and skewness, graphical representation, Bernoulli's Theorem, curve-fitting, theory of sampling, correlation, and regression lines. **Prerequisite: Math. and Ast. 20a.**

123 CURVE TRACING. (4) II Boyd
This course is designed to cover a survey of various methods and devices for sketching algebraic curves. Use is made of both non-homogeneous and homogeneous coordinates. The theory of algebraic curves is developed as it is needed.

124 ELEMENTARY THEORY OF STATISTICS. (3) III 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.

132 THE CALCULUS OF FINITE DIFFERENCES. (4) I South
A study of the methods of differencing, finite integration, interpolation, summation of series and difference equations. Topics will include Gregory-Newton formula of interpolation, divided differences, central differences, Euler-Maclaurin formula, Gregory's formula of numerical integration. Lubbock and Woolhouse formulae. **Prerequisite: Math. 20b.**

201a GEOMETRIC TRANSFORMATIONS. (4) III Pence
A course covering briefly linear and quadratic transformations.

203a-d THESIS. (4 ea.) I, II, III — Senior Staff
Required in addition to other requirements for advanced degrees.

211 HIGHER ALGEBRA. (4) II — Latimer
This course covers the material in Chapters 2-11 inclusive and Chapter XX in Bocher's "Introduction to Higher Algebra." **Prerequisite: Math. and Ast. 20a.**

220a-d MATHEMATICS SEMINAR. (3 ea.) II — Latimer

Astronomy

***51a, b DESCRIPTIVE ASTRONOMY.** (4, 4) II, III — Fischer
An elementary, non-mathematical course.

Note.—Other courses such as Fourier's Series, Potential Function, Partial Differential Equations, Actuarial Mathematics, Axiomatics, Theory of Numbers, Real Variable, Algebraic Numbers, Tensor Analysis, Orthogonal Systems of Numbers, Practical Astronomy, Elementary Observations in Astronomy, Integral Equations, Calculus of Variations, Differential Geometry, Complex Variable, Algebraic Curves, Modern Solid Geometry, Algebraic Invariants, Celestial Mechanics, Groups, Advanced Calculus, Advanced Analytics, Series, Solid Analytics, and second courses in various subjects will be given from time to time.

MILITARY SCIENCE

Colonel Chipman and Colonel Brewer†; Captain Stivers; First Lieutenant Duggan; Second Lieutenant Trachtenberg; Technical Sergeants Kinker and Tittle; Sergeant (Technician, Third Grade) Watson, and Sergeant Himes.

Branch Immaterial

First Year Basic Course, R O T C

Introductory course in Military Science, covering the following subjects: Concealment and Camouflage; Cover and Movement; Dismounted Drill; Equipment and Clothing; Extended Order; Field Sanitation; First Aid; Formations, Ceremonies, and Processing; Interior Guard Duty; Map and Photograph Reading; Marches and Bivouacs; Military Courtesy and Discipline (Articles of War); Organization of the Army; Patrol Operations; Personal and Sex Hygiene; Protection against Carelessness; Rifle, cal. .30, M1 or M1903, Mechanical Training; Safeguarding Military Information and Military Censorship; Scouts, Observers, and Messengers; Tent Pitching. The subjects listed above will be offered in the three quarters of the course as local conditions permit.

***1a FIRST YEAR BASIC COURSE, ROTC.**
(2) I — Trachtenberg and Kinker
Five hours a week.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to Freshmen.

*1b **FIRST YEAR BASIC COURSE, ROTC.**
(2) II Trachtenberg and Kinker
Five hours a week.

*1c **FIRST YEAR BASIC COURSE, ROTC.**
(2) III, IV Trachtenberg and Kinker
Five hours a week.

Second Year Basic Course, R O T C

Course in Military Science, covering the following subjects: Administration; Application of Military Law; Articles of War; Associated Arms; Communications (basic); Field Sanitation; First Aid; Formations, Ceremonies, and Processing; Map and Photograph Reading; Marches and Bivouacs; Safeguarding Military Information; Personal and Sex Hygiene; Tactical Training and Combat Organization; Training Management; Unit Supply (Battalion). The subjects listed above will be offered in the three quarters of the course as local conditions permit.

6a **SECOND YEAR BASIC COURSE, ROTC.**
(2) I Stivers and Watson
Five hours a week. **Prerequisites: 1a, 1b, 1c.**

6b **SECOND YEAR BASIC COURSE, ROTC.**
(2) II Stivers and Watson
Five hours a week. **Prerequisites: 1a, 1b, 1c.**

6c **SECOND YEAR BASIC COURSE, ROTC.**
(2) III, IV Stivers and Watson
Five hours a week. **Prerequisites: 1a, 1b, 1c.**

MUSIC

Professor Capurso; Assistant Professors Horton, Lewis, and Richardson; Mrs. Cullis and Mr. Kuhlman.

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

Requirements in Field of Concentration: Sixty quarter hours of advanced work in the 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 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. Prerequisite: Junior standing; Music 33a, b, c: Applied Music 18 quarter hours; Psychology 1.

Required: A minimum of 22 quarter hours of advanced work in music: 12a, b, 13a, b, 19a, b, 34a-c, and 114 a or 115 (depending on instrumental or choral major). Other courses, such as Music

* Open to Freshmen.

4a, b, 7, 8, 9, or 26 may be elected. 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 required to take part in **Either Orchestra or Glee Club** for each quarter without credit. Students participating in both orchestra and glee club may receive credit for one of the organizations.

MUSIC A. NOTATION AND TERMINOLOGY.
(0) I, II, or III Horton
(Required of all beginning music majors)
Fundamentals and essentials of music notation and terminology; the physical properties of sound. A prerequisite to all courses in theory of music, unless the student passes an examination in the subject.

4a PUBLIC SCHOOL MUSIC. (3) I, IV Lewis
A course in music methods and materials for use in **Primary Grades** stressing care of the child voice; rote-song singing, and repertoire; rhythmic development; listening experiences of standard musical literature; beginning phases of notation.

4b PUBLIC SCHOOL MUSIC. (3) II, IV Lewis
A course in music methods and materials for use in the **Intermediate Grades.** Continuation of 4a with the development of two and three-part singing; minor mode; chromatics, and rhythmic notation, as found in typical music texts for fourth, fifth, and sixth grades.

7 STRINGS—Methods, Materials, and Techniques. (3) I, IV Capurso
This course includes a practical study in the elementary techniques of the violin, viola, violoncello, and string bass, together with the study of teaching methods and materials as related to instrumental music in public schools. **Prerequisite: Junior standing.**

8 BRASSES AND PERCUSSION—Methods, Materials, and Techniques.
(3) II, IV Capurso
This course includes a practical study in the elementary techniques of the cornet and trumpet, horns, trombone, baritone, tube, timpani, bass and snare drums, together with the study of teaching methods and materials as related to instrumental music in the public schools. **Prerequisite: Junior standing**

9 WOODWINDS—Methods, Materials, and Techniques.
(3) III, IV Capurso
This course includes a practical study in the elementary techniques of the flute, oboe, clarinets, saxophones, and bassoon together with the study of teaching methods and materials as related to instrumental music in the public schools. **Prerequisite: Junior standing.**

12a COUNTERPOINT. (3) I, III, IV Horton
A study of melody writing and the combining of melodies; melodic and rhythmic dictation; study of scales and intervals at the keyboard; drill in sight singing. Study of master works in two voices; the writing of counterpoint in two voices on original or given **canti fermi,** leading to the composition of original two-part inventions and free forms in vocal style. Required of all music majors. **Prerequisite: Music A** (unless excused by instructor) and ability to play piano music of the difficulty of simple hymns.

12b COUNTERPOINT. (3) II, IV Horton
A continuation of Music 12a. A study of master works in three and four voices, leading to the writing of short fugues on given and original themes. Required of all music majors. **Prerequisite: Music 12a.**

13a FORM AND ANALYSIS. (3) II, IV Horton
A study of the design and harmonic structure of simple and complex forms of music through analyses of standard musical compositions. **Prerequisite: Music 33a, b.**

13b FORM AND ANALYSIS. (3) III, IV Horton
A continuation of Music 13a. **Prerequisite: Music 13a.**

***15a-1 APPLIED MUSIC (Piano).**
(3 ea.) I, II, III, IV Richardson, Cullis, and Kuhlman

***17a-1 APPLIED MUSIC (Voice). (3 ea.) I, II, III, IV** Kuhlman

***18a-1 APPLIED MUSIC (Organ). (3 ea.) I, II, III, IV** Cullis

19a, b HISTORY OF MUSIC. (4, 4) I, IV Capurso
A general study of the history of music development from the standpoint of form. Open only to music majors.

20a SURVEY OF MUSIC LITERATURE. (3) II, IV Capurso
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 composers and works representing the polyphonic and classic periods. Opportunity is afforded for extensive listening to recorded music together with lecture presentation, demonstrations, and collateral reading.

20b SURVEY OF MUSIC LITERATURE. (3) III, IV Capurso
Continuation of Music 20a. A study of the symphony, piano music, songs, and opera from Beethoven to the present era. (Not open to music majors.)

***22a-c BAND. (2 ea.) I, II, III** Capurso
For Freshmen enrolled in Military Science.

***22b BAND. (2) II** Capurso
Continuation of 22a.

***22c BAND. (2) III** Carpuso
Continuation of 22b.

23a-c BAND. (2 ea.) I, II, III, IV Capurso
For sophomores enrolled in Military Science.

26 HIGH SCHOOL METHODS. (3) III, IV Lewis
Development of knowledge and skills in handling the music programs in junior and senior high schools. This includes study of the adolescent in the junior high school; general music classes; music appreciation and theory classes; organization and training of special music groups as band, orchestra, and glee clubs; material for assemblies and integrated units.

28a-c CONCERT BAND. (2 ea.) I, II, III, IV Capurso
For juniors.

*** Courses a, b, c open to Freshmen; d, e, f, courses for Sophomores; g, h, i, courses for Juniors, and j, k, l, courses for Seniors.**

29a-c CONCERT BAND. (2 ea.) I, II, III, IV — Capurso
For Seniors.

***33a ELEMENTARY HARMONY, SIGHTSINGING, AND DICTATION.** (4) I, III, IV — Horton
Melodic and rhythmic dictation, Drill in sightsinging and keyboard harmony. Harmonizing of given and original melodies, using tonic, dominant, and dominant seventh chords and their inversions. Required of all music majors. **Prerequisite: Music 12b.**

33b ELEMENTARY HARMONY, SIGHTSINGING, AND DICTATION. (4) II, III, IV — Horton
A continuation of Music 33a. Introduction of the dominant ninth and the incomplete dominant dissonance; the sub-dominant triad and the dominant seventh chord and non-harmonic tones. Required of all music majors. **Prerequisite: Music 33a.**

***33c ELEMENTARY HARMONY, SIGHTSINGING, AND DICTATION.** (4) I, III, IV — Horton
Continuation of 33b. A study of subordinate triads and the chords of the seventh; modulations to closely related keys. Analysis of master works. Required of all music majors. **Prerequisite: Music 33b.**

34a ADVANCED HARMONY, SIGHTSINGING, AND DICTATION. (4) I, III, IV — Horton
A continuation from Elementary harmony. Modulation by common chord and by diminished seventh; chromatic alterations of all principal and subordinate triads and seventh chords. Required of all music majors. **Prerequisite: Music 33c.**

34b ADVANCED HARMONY, SIGHTSINGING, AND DICTATION. (4) II, III, IV — Horton
Continuation of Music 34a. Modulation by chromatic alterations and further study of chromatic dissonances. Required of all music majors. **Prerequisite: 34a.**

34c ADVANCED HARMONY, SIGHTSINGING, AND DICTATION. (4) III, IV — Horton
Continuation of Music 34b. Modulation by common tone. Further study of chromatic dissonances; scales other than the diatonic, and survey of contemporary harmonic experiments. Required of all music majors. **Prerequisite: 34b.**

***39a-1 GLEE CLUB.** (1 ea. I, II, III, IV — 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-1 ORCHESTRA.** (1 ea.) I, II, III, IV — Capurso
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) III, IV — Capurso
A general study of any particular phase of music or music education; preparation for comprehensive examination, and graduation recital.

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* Courses a, b, c, open to Freshmen; d, e, f, courses for Sophomores; g, h, i, courses for Juniors, and j. k, l, courses for Seniors.

43a, b SURVEY OF MUSICAL THEORY. (3, 3) II, IV Lewis
A course designed particularly for the layman in music covering the theoretical aspects of music, such as musical notation and terminology; harmonization of melodies; contrapuntal analysis; and sightsinging.

110 RESEARCH PROBLEMS IN PEDAGOGY OF THEORY. (3) I, II, III, IV Horton
An independent course in the teaching of counterpoint and theory to be selected by the instructor on the basis of prerequisite training and practical need. **Prerequisite: Music 33a, b; 34a, b or equivalent; and 12a, b.**

111a RESEARCH PROBLEMS IN MUSIC. (3) I, II, III, IV Capurso
A research course in some phase of music other than history or pedagogy of music theory. The student will confer with the instructor whenever either or both of them deem it advisable.

111b RESEARCH PROBLEMS IN MUSIC. (3) I, II, III, IV Capurso
Continuation of 111a. This course permits research in some phase of music which may, or may not, lead to the Master's Degree.

114a INSTRUMENTATION AND CONDUCTING. (3) II, IV Capurso
This course includes a study of the individual instruments of the symphony orchestra and concert band; practice in arranging primarily for the string orchestra; the technique and practice of the fundamentals of orchestral conducting and score reading; and the problems of organizing and developing school bands and orchestras.

114b INSTRUMENTATION AND CONDUCTING. (3) III Capurso
A continuation of 114a which includes a further study of orchestral conducting and arranging for woodwind and brass ensembles and symphony orchestra. Recommended for instrumental majors.

115 CHORAL METHODS AND CONDUCTING. (3) III, IV Lewis
This course is intended for music supervisors majoring in the choral field and will be a study of materials, techniques, and problems of presenting choral literature on the secondary level. Recommended as elective for choral supervisors.

208 SEMINAR IN MUSIC. (2) III, IV Capurso
One two-hour meeting is held each week for discussion of current developments in music found in recent books and periodicals.

NOTE: Courses from the following list will be given as a demand for them justifies; 16a-1, Applied Music-Strings; 31a-1, Applied Music-Woodwind Instruments; 32a-1, Applied Music-Brass and percussion Instruments; 215a-d, Applied Music (Piano); 216a-d, Applied Music (Strings); 217a-d, Applied Music (Voice); 218a-d, Applied Music (Organ); 228a-d, Concert Band; 202, History of Musical Thought; 203, Choral Literature and Technique; and 204, Advanced Band Technique.

PHILOSOPHY

Professor Kuiper and Assistant

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

Requirements in Field of Concentration: Sixty quarter hours 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. Prerequisite: 8 quarter hours in Philosophy. **Required:** A minimum of 22 quarter hours in Philosophy; Philosophy 35a-c; and a comprehensive examination in the senior year.

21 INTRODUCTION TO PHILOSOPHY. (4) I, III, IV Kuiper
An elementary study of the principal types of philosophy, past and present.

31 LOGIC. (4) I, II, IV Kuiper
A study of the logical principles underlying valid thought.

35a-c TUTORIAL WORK IN PHILOSOPHY. (1 ea.) I, II, III Kuiper
Weekly conferences with major students; reports on assigned readings; readings in preparation for the comprehensive examination. Required of senior majors in Philosophy.

51 ETHICS. (4) II, III, IV Kuiper
A study of morality and right action, and an introduction to a general theory of value.

Four of the following courses will be offered during 1945-46.

101a HISTORY OF PHILOSOPHY. (4) Kuiper
A survey of the philosophical thought of ancient Greece and Rome, and of medieval Christendom.

101b HISTORY OF PHILOSOPHY. (4) Kuiper
A survey of modern European and American philosophy from the Renaissance to contemporary times.

102 CONTEMPORARY PHILOSOPHY. (4) Kuiper
A study of contemporary philosophic tendencies, notably naturalism, empiricism, pragmatism, idealism, and neoscholasticism. Bertrand Russell, John Dewey, George Santayana, A. N. Whitehead, and Henri Berguson are among the philosophers to be discussed.

106 REPRESENTATIVE MODERN PHILOSOPHERS. (4) Kuiper
A study in the original works of the chief figures in modern philosophy. Special attention will be given to Descartes, Spinoza, Locke, Hume, and Kant.

109a-d INDEPENDENT WORK. (4 ea.) I, II, III, IV Kuiper
Open only to students who have distinguished themselves in Philosophy or in allied subjects.

110 MAKING OF THE MODERN MIND. (4) Kuiper
A survey of the intellectual and cultural background of the present age. This course considers the most revolutionary cultural, religious, and scientific developments of the last three centuries and their effect upon the philosophic outlook of modern man.

115 INTERMEDIATE LOGIC. (4) Kuiper
A second course in logic, including the logic of classes, of relations, of propositions, and of propositional functions; the theory of deductive systems; and a consideration of the rival schools of contemporary logical theory.

118 PLATO AND ARISTOTLE. (4) Kuiper
A study in English of the chief dialogues of Plato and of Aristotle's **Ethics, Politics,** and **Metaphysics.**

120 **GREAT RELIGIONS OF THE WORLD.** (4) Kuiper
A study of six religions in relation to the culture in which they arose: Shinto, Hinduism, Buddism, the religion of ancient Greece, Judaism, and Christianity.

201a, b **SEMINAR IN PHILOSOPHY.** (2, 2) Kuiper
One 2-hour meeting a week for discussion of current developments in Philosophy as found in books and periodicals. Readings and reports.

210a, b **TYPES OF LOGICAL THEORY.** (4, 4) Kuiper
An intensive study of recent and contemporary contributions to logical theory: Whitehead and Russell, C. I. Lewis, R. Carnap, John Dewey, and others.

220a, b **RESEARCH IN PHILOSOPHY.** (4, 4) Kuiper
This course is primarily intended for advanced students who desire and are prepared to do research in logic and epistemology.

PHYSICAL EDUCATION

Professors Potter† and Stout†; Associate Professor Hackensmith, Assistant Professors Huddleston† and Karsner†; and Mr. Kurachek†, Mr. Edwards; Miss Markwell†, Miss Johnson, and Assistants

Service Courses for Men

For information on uniforms and fees see Part II, page 70.
Note.—The following courses may be elected to meet the physical education requirements for graduation.

*1 **SPORTS SKILLS AND PHYSICAL FITNESS.** (1) I, II, III, IV Edwards
All students required to take physical education must enroll in this course for their first quarter's work. Three hours per week.

*2 **TAP DANCING.** (1) I, II, III, IV Staff
Fundamental steps designed for beginners. Three hours per week.

*3 **BOXING.** (1) I, II, III Edwards
Fundamentals of Boxing. For beginners. Three hours per week.

*4 **HANDBALL.** (1) I, II, III, IV Staff
Fundamentals of Handball. For beginners. Three hours per week.

*5 **BASKETBALL.** (1) I, II, III Edwards
Fundamentals of Basketball. Three hours per week.

*6 **WRESTLING.** (1) I, II, III Edwards
Fundamentals of Wrestling. For beginners. Three hours per week.

*7 **GOLF.** (1) I, III, IV Staff
Fundamentals of Golf. For beginners. Special charge of $3.00 to $5.00 for greens fee. Three hours per week.

*9 **SOFTBALL.** (1) I, III, IV Edwards
Fundamentals of Softball. Three hours per week.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to Freshmen.

*11 **TENNIS.** (1) I, III, IV — Edwards
Fundamentals of Tennis. For beginners. Three hours per week.

*12 **TOUCH FOOTBALL.** (1) I — Edwards
Fundamentals of Touch Football. Three hours per week.

*13 **FENCING.** (1) I, II, III — Hackensmith
Fundamentals of Fencing. For beginners. Three hours per week.

*14 **VOLLEYBALL.** (1) I, II — Staff
Fundamentals of Volleyball. Three hours per week.

*15 **APPARATUS AND TUMBLING.** (1) I, II, III — Hackensmith
Fundamental activities on gymnasium apparatus and tumbling stunts. For beginners. Three hours per week.

*16 **SOCCER.** (1) I, II — Staff
Fundamentals and team play of Soccer Football. Three hours per week.

*18 **ARCHERY.** (1) I, III, IV — Staff
Fundamentals of Archery. Three hours per week.

*19 **FOLK DANCING.** (1) I, III, IV — Staff
Participation in folk dances of various countries. Three hours per week.

*20 **BADMINTON.** (1) I, II, III, IV — Staff
Fundamentals of Badminton. For beginners. Three hours per week.

*21 **RECREATIONAL SPORTS.** (1) I, II, III, IV — Staff
Instruction and participation in Deck Tennis, Aerial Dart, Clock Golf, and other recreational sports. Three hours per week.

*25a-f **INDIVIDUAL PHYSICAL EDUCATION.**
(1 ea.) I, II, III — Hackensmith
Students are assigned to this class on recommendation of the University physician. Special exercise programs, and game activities are taught to meet the indivdual needs. Three hours per week.

Service Courses for Women

For information on uniforms and fees see Part II, page 70.
Note.—The following courses may be elected to meet the physical education requirements for graduation.

*1 **SPORTS SKILLS AND PHYSICAL FITNESS.**
(1) I, II, III, IV — Staff
All students required to take physical education must enroll in this course for their first quarter's work. Three hours per week.

*2 **TAP DANCING.** (1) I, II, III, IV — Staff
Fundamental steps designed for beginners. Three hours per week.

*5 **BASKETBALL.** (1) I, II, III — Markwell
Fundamentals of Basketball. Three hours per week.

*7 **GOLF.** (1) I, II, III — Staff
Fundamentals of Golf. For beginners. Special charge of $3.00 to $5.00 for greens fee. Three hours per week.

* Open to Freshmen.

*9 **SOFTBALL.** (1) I, III, IV — Staff
Fundamentals of Softball. Three hours per week.

*11 **TENNIS.** (1) I, III, IV — Staff
Fundamentals of Tennis. For beginners. Three hours per week.

*13 **FENCING.** (1) I, II, III — Staff
Fundamentals of Fencing. For beginners. Three hours per week.

*14 **VOLLEYBALL.** (1) I, II — Staff
Fundamentals of Volleyball. Three hours per week.

*15 **APPARATUS AND TUMBLING.** (1) I, II, III — Staff
Fundamental activities on gymnasium apparatus and tumbling stunts. For beginners. Three hours per week.

*17 **HOCKEY.** (1) I, III — Markwell
Fundamentals of Hockey. Three hours per week.

*18 **ARCHERY.** (1) I, III, IV — Staff
Fundamentals of Archery. Three hours per week.

*19 **FOLK DANCING.** (1) I, III, IV — Staff
Participation in Folk Dances of various countries. Three hours per week.

*20 **BADMINTON.** (1) I, II, III, IV — Staff
Fundamentals of Badminton. For beginners. Three hours per week.

*21 **RECREATIONAL SPORTS.** (1) I, II, III, IV — Staff
Instruction and participation in Deck Tennis, Aerial Darts, Clock Golf, and other recreational sports. Three hours per week.

*23 **BALLET.** (1) I, II, III, IV — Staff
Fundamentals of Ballet. Three hours per week.

*25a-f **INDIVIDUAL PHYSICAL EDUCATION.** (1 ea.) I, II, III — Staff
Students are assigned to this class on recommendation of the University physician. Special exercise programs are prescribed to meet the individual needs. Three hours per week.

*27 **MODERN DANCE.** (1) I, II, III, IV — Staff
Class work in technique, dance form, and rhythmical activities with creation of patterns by class. Three hours per week.

*28 **HORSEBACK RIDING.** (1) I, II, III — Staff
Fundamentals of riding. Beginners, and elementary class. Special fee of $8.00 to $12.00. Three hours per week.

Professional and Teacher Training Courses

*30 **CALISTHENICS, APPARATUS AND TUMBLING.** (3) I, II — Hockensmith
Theory and practice of various systems of Calisthenics, including the German and Swedish. Demonstration and practice of the fundamentals of tumbling, pyramid building, and exercises on the various pieces of gymnasium apparatus. Six hours per week.

*31 **SPORTS AND GAMES.** (3) II, III, IV — Markwell
Instruction and practice in individual and team sports, low organized games, relays, contests, and mass athletics. Six hours per week.

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* Open to Freshmen.

*32 **RHYTHMICAL ACTIVITIES.** (3) I, II, III, IV — Staff
Fundamentals of rhythm and basic dance steps in social, tap, and folk dancing. Development of appreciation of the dance and skill in executing dances. Six hours per week.

*33 **FOOTBALL COACHING FUNDAMENTALS.**
(3) I, IV — Shively
Theory and Practice in coaching fundamentals involved in football. Men only. Six hours per week.

*34 **BASKETBALL COACHING FUNDAMENTALS.**
(3) II, IV — Shively
Theory and Practice in coaching fundamentals involved in basketball. Men only. Six hours per week.

*35 **TRACK AND BASEBALL COACHING FUNDAMENTALS.**
(3) III, IV — Shively
Theory and Practice in coaching fundamentals involved in track and baseball. Men only. Six hours per week.

*36 **FIELD SPORTS FOR WOMEN.** (3) I, III, IV — Markwell
Theory and practice of techniques and teaching procedure of field sports for women including hockey, soccer, field ball, speed ball, etc. Six hours per week.

*37 **BASKETBALL AND VOLLEYBALL COACHING FUNDAMENTALS FOR WOMEN.** (3) II, IV — Markwell
Theory and practice of techniques and teaching procedures of basketball and volleyball for women. Special emphasis on coaching fundamentals of these sports. Six hours per week.

*38 **GOLF AND TENNIS.** (3) I, III, IV — Markwell
Theory and practice in methods and principles involved in the teaching of the fundamental skills and advanced coaching techniques in golf and tennis for women. Six hours per week.

42 **PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL.**
(4) I, II, III, IV — Gilb
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. Five hours per week.

55 **TECHNIQUE AND PROCEDURE OF THE DANCE.**
(3) II, III, IV — Staff
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. Women only. Three hours per week.

60a-c **TUTORIAL WORK IN PHYSICAL EDUCATION.**
(1 ea.) I, II, III — 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.

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* Open to Freshmen.

115 HISTORY AND SURVEY OF THE DANCE.
(4) II, III, IV Staff

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. Four hours per week.

120a, b KINESIOLOGY. (3, 3) I, II, III Hackensmith

A study of the principle types of exercise with special consideration to the muscular and mechanical factors involved in bodily movement and function. A detailed study of the effects on bodily development and efficiency of muscular activity. A study of the prevention and treatment of certain physical defects and deformities through a knowledge of body mechanics. **Prerequisite: Anatomy and Physiology 4 and 5.** Three hours per week.

123 HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION. (5) II, III Hackensmith

Study of the historical development of Physical Education, and contributions of the individual and organizational movements. An interpretation of the biological, psychological, and sociological principles of physical education. Five hours per week.

125 ADMINISTRATION AND ORGANIZATION OF RECREATION. (4) III, IV Markwell

A study of policies and procedures involved in organization and administration of recreation for children, youth, and adults. Four hours per week.

129 PHYSICAL EDUCATION IN THE SECONDARY SCHOOL.
(4) I, IV Staff

Required of all physical education majors who wish to qualify for teacher certification as physical education teachers on the secondary school level. Study of theory, practice, and methods of teaching physical education activities and programs for secondary school pupils. Four hours per week.

131 ADVANCED BASKETBALL. (3) III, IV Rupp

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. Three hours per week. **Prerequisite: For undergraduates, P. E. 34. Men only.**

142 ADVANCED FOOTBALL. (3) II, IV 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: For undergraduates, P. E. 33, Men only.** Three hours per week.

149 ADMINISTRATION OF PHYSICAL EDUCATION AND ATHLETICS. (4) I, IV Hackensmith

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. Four hours per week.

151 ORGANIZATION OF INTRAMURAL SPORTS.
(3) I, IV Hackensmith

A study of the history and development of intramural sports on the elementary, secondary, and college levels. Lecture, recitation, and practice in accepted methods of organizing and administering intramural sports. Three hours per week.

200 GRADUATE SEMINAR IN PHYSICAL EDUCATION.
(3) I, IV Hackensmith

Graduate students majoring in physical education who are engaged in writing theses should register for this course. Three hours per week.

201a RESEARCH IN PHYSICAL EDUCATION.
(4) I, II, III, IV Hackensmith

The theory and practice of the measurement of strength, size and maturity, power, motor educability, and agility. Tests of track and field events, general motor capacity and ability, endurance, and special abilities. A study of the requirements of a good physical efficiency test and the use of scoring tables. Four hours per week.

201b RESEARCH IN PHYSICAL EDUCATION.
(4) I, II, III, IV Hackensmith

The use of tests in classification and achievement. Paper and pencil tests, rating scales, measurement in health field, scoring and using the medical examination, cardiovascular tests, body mechanics, problems in grading physical education activities, and methods of test construction. Four hours per week.

202 PROBLEMS COURSE IN CONTEMPORARY MOVEMENTS IN PHYSICAL EDUCATION. (4) II, IV 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. Four hours per week.

203 CURRENT STUDIES IN THE ADMINISTRATION OF PHYSICAL EDUCATION. (3) II, IV Hackensmith

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. Three hours per week.

204 CURRENT STUDIES IN THE ADMINISTRATION OF ATHLETICS. (3) III, IV Shively

For Athletic 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. Three hours per week.

PHYSICS

Professors Webb, Koppius, and Pardue†; Associate Professors Crawley†, Hahn†, Ramsey†, and Warburton; Assistant Professors Schroeder and Todd†; Instructor Pauls; and Instrument Maker Schneider.

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

Requirements in Field of Concentration: Sixty quarter hours of advanced work in the field of Physical Sciences, including the major work.

Requirements for a Major. Prerequisite: Physics 3a-c; Mathematics 17, 3, and 19. **Required:** Mathematics 20a, 20b, Physics 125c, and a minimum of 22 quarter hours of advanced work in Physics; and a comprehensive examination in the senior year.

*1a **GENERAL ELEMENTARY PHYSICS. (5) I** Staff
An elementary course covering Mechanics of Solids, Liquids, and Gases. Lectures and recitations, four hours; laboratory, two hours.

*1b **GENERAL ELEMENTARY PHYSICS. (5) II** Staff
Continuation of Physics 1a, covering Magnetism and Electricity. Lectures and recitations, four hours; laboratory, two hours. **Prerequisite: Physics 1a.**

*1c **GENERAL ELEMENTARY PHYSICS. (5) III** Crawley and others
Continuation of Physics 1b, covering Heat, Sound, and Light. Lectures and recitations, four hours; laboratory, two hours. **Prerequisite: Physics 1a.**

3a **GENERAL COLLEGE PHYSICS. (6) I, II, IV** Staff
An advanced general course covering Mechanics of Solids, Liquids, and Gases. Lectures and recitations, four hours; laboratory, four hours. **Prerequisite: College Algebra and Trigonometry, Mathematics 19; College Chemistry or equivalent; concurrent: Mathematics 20a.**

3b **GENERAL COLLEGE PHYSICS. (6) I, II, III, IV** Staff
An advanced general course, covering Electricity and Magnetism. Lectures and recitations, four hours; laboratory, four hours. **Prerequisite: Physics 3a.**

3c **GENERAL COLLEGE PHYSICS. (6) II, III, IV** Staff
An advanced general course, covering Heat, Sound, and Light. Lectures and recitations, four hours; laboratory, four hours. **Prerequisite: Physics 3a.**

*15a-c **TUTORIAL WORK IN PHYSICS. (2 ea.)** Staff
A conference course for prospective major students in Physics. Conference and laboratory work, three hours.

*51 **INTRODUCTION TO PHYSICS. (3) I, IV** Webb and Schroeder
A lecture demonstration course covering the subjects of Mechanics of Solids, Liquids, and Gases.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* **Open to Freshmen.**

*52 **INTRODUCTION TO PHYSICS.** (3) II Webb and Schroeder
A lecture demonstration course covering the subjects of Electricity and Magnetism.

*53 **INTRODUCTION TO PHYSICS.** (3) III Webb and Schroeder
A lecture demonstration course covering the subjects of Heat, Sound, and Light.

104 **THEORETICAL MECHANICS.** (6) I Crawley
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, six hours. **Prerequisite: Physics 3c, Mathematics 20b.**

108 **THEORY OF LIGHT.** (5) Crawley
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. **Prerequisite: Physics 3c, Mathematics 20b.**

111 **ELECTRICITY AND MAGNETISM.** (5) 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. **Prerequisite: Physics 3c, Mathematics 20b.**

113 **FUNDAMENTALS OF RADIO.** (4) IV 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 1c or equivalent.**

114 **VACUUM TUBES AND CIRCUIT THEORY.** (4) Hahn and Pardue
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. **Prerequisite: Physics 3c, Mathematics 20b.**

117 **THEORY OF HEAT.** (3) I Koppius
A lecture and problems course dealing with the fundamental principles of heat phenomena. Topics included are: high and low temperatures; elementary kinetic theory; specific heat relations, both classical and modern; expansion; conduction; radiation; temperature dependence of physical quantities such as viscosity, surface tension, elasticity; etc. **Prerequisite: Physics 3c, Mathematics 20b.**

119 **PRINCIPLES OF X-RAYS.** (4) I Hahn and Crawley
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. **Prerequisite: Physics 3c, Mathematics 20b.**

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* Open to Freshmen.

120 X-RAY TECHNIQUE. (3) II Crawley and Hamilton
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. **Prerequisite: Physics 1c.**

122 X-RAY ANALYSIS OF CRYSTALS. (4) 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.**

123a PRINCIPLES OF THERMODYNAMICS. (3) II Koppius
A lecture and problems 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: Equation of state for ideal and real gases, specific heat relations, continuity and changes of state, vapor and osmotic pressure, thermodynamic functions and thermodynamic equilibrium. **Prerequisite: Physics 117 or equivalent.**

123b PRINCIPLES OF THERMODYNAMICS. (3) III Koppius
A continuation of Physics 123a. The phase rule and phase equilibria, equilibrium in liquid systems, ionic equilibrium, electromotive force and free energy, the solid state, surface phenomena, radiation, Nernst's heat postulate. **Prerequisite: 123a.**

125a-d INDEPENDENT WORK IN PHYSICS. (4 ea.) Staff

131 EXPERIMENTAL PHYSICS: ELECTRICITY. (3) Warburton
The course provides advanced laboratory practice in electrical measurements. It includes calibration and use of the quadrant electrometer, 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. **Prerequisite: Physics 111, or equivalent.**

137 EXPERIMENTAL PHYSICS: HEAT. (3) Koppius
An advanced laboratory course in modern methods of measuring thermal quantities. Opportunity is provided for using the gas thermometer, resistance thermometer, thermopiles 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. (3) Koppius and Schroeder
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. (5) Crawley
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. **Prerequisite: Physics 3c, Mathematics 20b.**

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, 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, b SEMINAR. (1, 1) Staff
A weekly meeting of the staff and advanced students for the 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.

226a, b RESEARCH IN PHYSICS. (4, 4) Staff

227a, b RESEARCH IN PHYSICS. (6, 6) Staff

POLITICAL SCIENCE

Professors Vanderbosch† and Manning†; Associate Professors Shannon† and Trimble†; Assistant Professors Reeves† and Edelmann†; and Temporary Professor Sherwood

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

Requirements in Field of Concentration: Sixty quarter hours of advanced work in the field of Social Studies, during the junior and senior years, including the major work.

Requirements for a Major. Prerequisite: Political Science 15 and 51. **Required:** At least one course in each of four fields of 51. **Required:** At least one course in each of four fields of Political Science, including one course each in Constitutional Development and Political Theory; Political Science 190; minimum of 24 quarter hours of advanced work in Political Science; a comprehensive examination in the senior year.

***15 PROBLEMS OF CITIZENSHIP. (5) I, II, III, IV** Staff
Public opinion, the newspaper, advertising, the modern economic system, labor problems, unemployment, agriculture, conservation, and the race problem.

***51 AMERICAN GOVERNMENT. (5) I, II, III, IV** Staff
A survey course in the structure and operation of the Federal Government.

52 MUNICIPAL GOVERNMENT. (5) I Reeves
An introductory course in the study of the structure and functions of modern city governments.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to Freshmen.

80 STATE GOVERNMENT. (5) II Reeves
A study of the forms and functions of government in operation in the states of the United States.

180a-d INDEPENDENT WORK. (5 ea.) I, II, III, IV
Honors course for seniors who are majors or minors in the department. Consent of the department required for admission.

190 SEMINAR IN POLITICAL SCIENCE. (5) III Staff
Open to major students.

I. Political Parties and Public Opinion

170 POLITICAL PARTIES. (5) I, IV 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.

173 PUBLIC OPINION. (5) II, IV 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.

RELATED COURSES IN OTHER DEPARTMENTS

Psychology 104, Social Psychology.

II. Public Administration†

****172 KENTUCKY GOVERNMENT AND CONSTITUTION. (5) IV**
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.

177a PRINCIPLES OF PUBLIC ADMINISTRATION. (5) I Reeves
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.

177b PRINCIPLES OF PUBLIC ADMINISTRATION. (5) III Reeves
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.

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
Sociology 107. Community Welfare Work

** Given from time to time.

III. Theory

171a EARLY POLITICAL THEORY. (5) I Shannon
The political theories of Plato and Aristotle, and Roman Political Thought. Thomas Acquinas, Dante. Christian Political Thought.

171b MODERN POLITICAL THEORY. (5) II Shannon
Detailed study of Machiavelli, Hobbes, Locke, Rousseau, Millard, and the theories of the American and French Revolutions, the English Utilitarians, Democratic Political Theory, Socialism, and Communism.

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. (5) II, IV Trimble
A study of the governments of England, Ireland, and the British self-governing dominions.

155b COMPARATIVE GOVERNMENT—CONTEMPORARY DICTATORSHIPS. (5) III, IV Trimble
A study of the governments of Europe, including France and Switzerland, and the dictatorships of Italy, Germany, and Russia.

168 THE GOVERNMENTS AND POLITICS OF EASTERN ASIA. (5) 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.

V. Public Law

159a AMERICAN CONSTITUTIONAL DEVELOPMENT. (5) I, IV 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.

159b AMERICAN CONSTITUTIONAL DEVELOPMENT. (5) II, IV 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.

176 LEGISLATION. (5) III Reeves
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.

RELATED COURSES IN OTHER DEPARTMENTS

History 131a, b. English Constitutional History
Law 149. Municipal Corporations
Law 161a, b. Constitutional Law I and II

VI. International Law and Diplomacy

****101 LATIN AMERICAN RELATIONS. (5) III**
The relations between the United States and the Latin American countries, the Monroe Doctrine, Pan-Americanism, Pan-Hispanism, and Latin America and the League of Nations.

150 INTERNATIONAL LAW. (5) II
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; and the treatment of aliens and international claims.

****160 AMERICAN FOREIGN RELATIONS. (5) II** 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, and the status and duties of foreign service officers.

165 WORLD POLITICS. (5) I Staff
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.

RELATED COURSES IN OTHER DEPARTMENTS

Economics 127. International Economic Policies
History 100a, b. The Diplomacy and Foreign Policy of the United States
History 120. Europe in the Twentieth Century
Law 164. Conflict of Laws

****202 NATIONAL AND REGIONAL PLANNING. (5) III, IV** 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.

204 INTERNATIONAL RELATIONS AND ORGANIZATION. (5) II
Social and economic factors leading to the establishment of international administrative organs, the Mandates System, the International Labor Organization, and the League of Nations.

‡205 PACIFIC SETTLEMENT, WAR, AND NEUTRALITY. (5) III, IV
Methods of pacific settlements; neutrality; conflicts between belligerent and neutral rights; methods short of war; nonbelligerency; insurgency; belligerency; recent developments and trends.

206 SPECIAL PROBLEMS IN PUBLIC ADMINISTRATION. (5) II, IV Shannon
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.

211 THE CONSTITUTION AND CIVIL RIGHTS. (5) I, IV Trimble
The American Conception of civil rights as expounded by the Constitutional Fathers and as interpreted by the courts. The social, econ-

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** Offered from time to time.
‡ Not given for duration of war.

omic, and political aspects and implications of these rights. Special attention will be given to the decisions of the United States Supreme Court.

‡213 **FEDERAL CENTRALIZATION. (5) 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.

‡215 **ADMINISTRATION OF JUSTICE. (5)**
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, and relation of the courts to other departments of the government.

‡217 **CONTEMPORARY AMERICAN DIPLOMATIC PROBLEMS. (5) IV**
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.

271 **SEMINAR IN CONTEMPORARY POLITICAL THEORY. (5) IV Shannon
An intensive study of the nature of the contemporary ideologies of socialism, communism, syndicalism, pluralism, anarchism, fascism, and political and social democracy.

PSYCHOLOGY

Professors White and Dimmick; Associate Professors Asher and Beaumont; Assistant Professors Newbury, Ratliff†, and Croft†; Instructor Pfeffer†; Graduate Assistants Betty Estes, Jean Adams, and Judith Key; and Student Assistant Ann Ensminger.

For information regarding the Industrial Psychological, Child Guidance, Mental Hygiene, and Educational Testing Services, see "Special Services of the University," p. 301.

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

Requirements for a Major. Prerequisites: A minimum of 10 quarter hours in Psychology, including Psychology 1 and 8, 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 22 of the 60 quarter hours in the field must be courses in Psychology not open to freshmen.

‡ Not given for duration of war.
** Offered from time to time.
† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

*1 **INTRODUCTION TO PSYCHOLOGY. (6) I, II, III, IV** Staff
An introduction to the study of the fundamental problems of human behavior. Recitations, demonstrations, and lectures. This course or its equivalent is the prerequisite to all other courses in the department.

*2 **APPLIED PSYCHOLOGY. (4) I, II, III, IV** Beaumont and White
The applications of psychological principles to business, industry, and public life. Special emphasis is placed on motivation, efficiency, and influencing the behavior of others. **Prerequisite: Psychology 1 or equivalent.**

5 **PSYCHOLOGY OF ADVERTISING AND SELLING. (4) IV** Asher
General principles of psychology applied to these fields as a fundamental basis for preparing advertisements and plans for selling. Attention is given to research methods and to the social significance of advertising. Given in cooperation with student publications, newspapers, and local concerns which afford opportunities for some practice. **Prerequisite: Psychology 1 or equivalent.**

*6 **PERSONALITY. (4) I, II, III** Ratliff and Pfeffer
An introductory course in the field of personality with special emphasis upon the biological and social factors involved in personality development. Four hours of lecture a week. **Prerequisite: Psychology 1 or equivalent.**

7 **PSYCHOLOGY OF THE CHILD. (4) I, II, III, IV** Asher and White
The development of behavior from birth to maturity. The problems of conduct arising during infancy, childhood, and adolescence in relation to child care and training. **Prerequisite: Psychology 1 or equivalent.**

8 **INDIVIDUAL DIFFERENCES. (4) I, II, III** Newbury and Asher
An introduction to the study of individual differences in behavior in relation to measurement in psychology. The relation of such factors as race, sex, heredity, physical constitution, environment, and training to differences in behavior will be considered. This course is a prerequisite to Psychology 101, 102, 103, and 105. Four hours of lecture a week. **Prerequisite: Psychology 1 or equivalent.**

101 **PRACTICE IN TESTING: INTELLIGENCE TESTS. (3) I** Dimmick
This course provides advanced laboratory practice in the measurement of intelligence by individual techniques. Six hours a week. **Prerequisite: Psychology 8 or equivalent.**

102 **PRACTICE IN TESTING: PERSONALITY TESTS. (3) II** Dimmick
The purpose of this course is to give the student practical training and experience in the use of a selected list of personality tests and closely related techniques, commonly used in evaluating the non-intellectual aspects of personality. Six hours a week. **Prerequisite: Psychology 8 or equivalent.**

103 **PRACTICE IN TESTING: APTITUDE AND TRADE TESTS. (3) III** Dimmick
This course provides laboratory practice in the use, scoring, and interpretation of industrial tests used in the fields of vocational and educational guidance and selection. Six hours a week. **Prerequisite: Psychology 8 or equivalent.**

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* Open to Freshmen.

104 SOCIAL PSYCHOLOGY. (4) IV White
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. **Prerequisite: Psychology 1.**

105 EMPLOYMENT PSYCHOLOGY. (4) II Beaumont
Emphasis is placed on the characteristics of an effective interview, the significance of certain items in the application blank, the use of objective tests in selection and the relation of adjustment, interests, special abilities, and experience to job fitness. Opportunities are provided for practice in interviewing and evaluating essential information in employment work. Three hours of lecture, two hours of laboratory a week. **Prerequisite: Psychology 8 or equivalent.**

106 INDUSTRIAL PSYCHOLOGY. (4) I, III Beaumont
Applications of psychology to industrial personnel problems: training and upgrading of employees, merit ratings, factors involved in industrial fatigue, surveys of attitudes, improvement of morale, reduction of turnover and absenteeism, safety promotion, providing incentives, welfare provisions, etc. Opportunities are provided for observation of successful methods in use in industrial situations. Three hours of lecture, two hours of laboratory a week. **Prerequisite: Psychology 1 or equivalent.**

109 EXPERIMENTAL PSYCHOLOGY: THE SENSES. (3) I White
The nature of the adequate stimuli, the sensory responses, and the techniques of measuring thresholds are the chief topics. Some consideration is given to spacial and form responses. One hour lecture, four hours laboratory. **Prerequisite: Psychology 1.**

110 EXPERIMENTAL PSYCHOLOGY: THE PERCEPTUAL PROCESS. (3) II White
Attention, association, thinking, feeling, and problem solving are investigated experimentally. The primary purpose of the experiments is to acquaint the student with the laboratory techniques involved in study of the above concepts. One hour lecture, four hours laboratory. **Prerequisite: Psychology 1.**

113 PSYCHOLOGY OF LEARNING. (3) III 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. **Prerequisite: Psychology 1.**

114 ABNORMAL PSYCHOLOGY. (4) I, IV 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. **Prerequisite: Psychology 1.**

115 GENETIC PSYCHOLOGY. (4) II, IV 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. **Prerequisite: Psychology 1.**

116 ANIMAL BEHAVIOR. (5) III Newbury

Three hours 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 subhuman species. Relationships to human problems indicated. **Prerequisite: Psychology 1.**

120a-d INDEPENDENT WORK IN PSYCHOLOGY. (3 ea.) I, II, III, IV 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. **Prerequisite: Major in the Department with a standing of two in psychology courses.**

121 STUDENT PERSONNEL. (4) III, IV

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.

124 MENTAL HYGIENE. (4) II 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. **Prerequisite: Psychology 1.**

125 EXPERIMENTAL CHILD STUDY. (4) III Asher

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 7.**

126 MENTAL HYGIENE OBSERVATION. (4) II Ratliff

A continuation of Psychology 124. Students are given the opportunity to apply to concrete cases the principles and concepts developed in 124. **Prerequisite: Psychology 124 or Hygiene 120a. This course is offered also as Hygiene 120b, but cannot be carried in both departments.**

201a-h SEMINAR IN PSYCHOLOGY. (1 ea.) I, II, III 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.

203a-h PROBLEMS IN PSYCHOLOGY. (3 ea.) I, II, III The Staff

Shorter research problems are registered under this number. A minimum of six hours per week is required in consultation with the instructor.

210a-h RESEARCH IN PSYCHOLOGY. (5 ea.) I, II, III 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.

211 MENTAL WORK AND FATIGUE. (4) II White
A laboratory course. Four hours devoted to experiments and one hours discussion each week. **Prerequisite: An advanced course in Experimental Psychology and Elementary Statistics or their equivalent.**

212 THE EMOTIONS. (5) III White
A laboratory course. Four hours devoted to experiments and one hour discussion each week. **Prerequisite: An advanced course in Experimental Psychology and Elementary Statistics or their equivalent.**

213 THE OBSERVATION PROCESS. (5) I White
A laboratory course. Four hours devoted to experiments and one hour discussion each week. **Prerequisite: An advanced course in Experimental Psychology and Elementary Statistics or their equivalent.**

215 PSYCHOMETRICS. (5) III 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. (4) 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.

219 CLINICAL PSYCHOLOGY. (5) III 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.

220 HISTORY OF PSYCHOLOGY. (3) I
An historical presentation of the origin and development of psychological thought in Ancient Greece, rational, modern, empirical, and the beginning of experimental psychology, with the discussion of the various approaches to the science.

221 SYSTEMATIC PSYCHOLOGY. (3) II
The evaluation of the fundamental concepts and current schools of Psychology.

ROMANCE LANGUAGES AND LITERATURES

Professor Ryland†, Associate Professors Server and Hernandez*, and Assistant Professors Haselden, Holmes†, Horsfield, and Schick.

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

Requirements in Field of Concentration: Sixty quarter hours 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. Prerequisite: Junior standing; in French: R. L. 1a, 1b, 2a, 2b; 4a, 4b, or 5a, 5b; 3a, 3b, or 8a, 8b; in

† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

Spanish: R. L. 5a, 5b, 7a, 7b, 10a, 10b, 10c; 1a, 1b or 4a, 4b. **Required:** A minimum of 22 quarter hours of advanced work in Romance Languages; R. L. 80a-c. Comprehensive examination in the senior year.

*1a **ELEMENTARY FRENCH.** (5) I, II, III — 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.** (5) II, III — 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, b **INTERMEDIATE FRENCH.** (4, 4) I, II, III — Staff
Supplementary reading. A good pronunciation, a thorough knowledge of grammar and verbs, and reading and conversation are the aims of course. Rapid reading of ordinary French and the ability to express oneself in French are stressed. **Prerequisite: 1a, b or two years of high school French.**

3a, b **FRENCH CONVERSATION AND COMPOSITION.** (3, 3) II — Schick
This course is designed 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. **Prerequisite: 2a, b.**

6a, b **FRENCH NOVEL AND DRAMA.** (4, 4) I, II, III — 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. **Prequisite: 2a, b.**

8a, b **FRENCH PHONETICS.** (4, 4) I, II — Schick
A scientific study of French sounds based on the International System of Phonetic Symbols. **Prerequisite: R. L. 2a, b.**

16a, b **CIVILIZATION OF FRANCE, SPAIN, SPANISH AMERICA, AND ITALY.** (1, 1) I, II, III — Staff
Lectures and correlated readings. Required of Romance Languages majors.

80a-c **TUTORIAL SEMINAR.** (1 ea.) I, II, III — Schick and Server
To prepare seniors for the Comprehensive Examination. Required of all Majors in Romance Languages during the senior year.

103a, b **ADVANCED PHONETICS.** (4, 4) I, II, III — Schick
This course is especially planned for teachers of phonetics both in high school and college. **Prerequisite: R. L. 8a, 8b and four years of French.**

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* Open to Freshmen.

109a, b FRENCH LITERATURE OF THE XIX CENTURY.
(4, 4) I, II, III Schick
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.

110a, b FRENCH LITERATURE OF THE XVII CENTURY.
(4, 4) I, II, III 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 works of Corneille, Racine, and Moliere. Work will be assigned to be done outside of the classroom. Reports to be written in French.

113a, b ADVANCED FRENCH GRAMMAR. (4, 4) I, II, III Schick

114a-f INDEPENDENT WORK. (4 ea.) I, II, III Staff

115a, b FRENCH LITERATURE OF THE XVIII CENTURY.
(4, 4) I, II, III Schick

116a, b FRENCH LITERATURE OF THE XX CENTURY.
(4, 4) I, II Horsfield

Spanish

***5a, b ELEMENTARY SPANISH. (5, 5) I, II, III** Staff
Fundamentals of the Spanish Language; simple reading. The purpose of this course is the learning of the essentials of Spanish Grammar and the acquisition of a practical vocabulary.

7a, b INTERMEDIATE SPANISH. (4, 4) I, II, III Staff
Review of grammatical principles, composition work, and reading of selected Spanish works. **Prerequisites: 5a, 5b or two years of high school Spanish.**

9a, b SPANISH NOVEL AND DRAMA. (4, 4) I, II, III Server
Reading of standard texts; brief survey of Spanish literature; composition; and outside reading. **Prerequisite. 7a and 7b.**

10a-c SPANISH CONVERSATION AND COMPOSITION. (4 ea.) Server
This course is designated to give the student a fair amount of fluency in the use of the spoken language. Dictation, vocabulary building, special emphasis on pronunciation; grammar developed by oral exercise. Class conducted entirely in Spanish.

102a, b ADVANCED SPANISH GRAMMAR AND COMPOSITION.
(4, 4) Server
Prerequisite: Three years of college Spanish.

104a, b SPANISH LITERATURE OF THE XVII CENTURY.
(4, 4) I, II, III Server
Selected literature of the Golden Age; Cervantes; the picaresque novel. **Prerequisite: Three years of college Spanish.**

106a, b SPANISH LITERATURE OF THE XX CENTURY.
(3, 3) IV Server
Beginning with the later works of the Generation of 1898, the novel, short story, drama, essay, poetry, and criticism of the period. Lectures, recitations, readings, and reports. **Prerequisite: Three years of college Spanish.**

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* Open to Freshmen.

108a, b **SPANISH AMERICAN LITERATURE.** (4, 4) Server
A study of the representative writers and principal literary productions of Spanish America. Outside reading of 2000-2500 pages of selected works. **Prerequisite: Three years of college Spanish.**

112a **SPANISH LITERATURE OF THE XIX CENTURY.**
(4) I, II Server
A study of Spanish Romanticism and the works of leading Costumbristas. **Prerequisite: Three years of college Spanish.**

112b **SPANISH LITERATURE OF THE XIX CENTURY.**
(4) II, III Server
A study of the novel and drama of the second half of the XIX century. **Prerequisite: Three years of college Spanish.**

Italian

*4a, b **ELEMENTARY ITALIAN.** (5, 5) I, II, III Schick
A study of the grammar and composition of Italian.

15a, b **INTERMEDIATE ITALIAN.** (4, 4) I, II, III Schick
Prerequisite: 4a-b.

SOCIAL WORK

Professor Wetzel, Mr. Isackes, and Visiting Lecturers

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

Requirements in the Field of Concentration: Sixty quarter hours of advanced work in the field of social study and the biological sciences during the junior and senior years, including the major work in the department.

Requirements for a Major: A minimum of twenty-two hours in social work with additional courses in psychology and the social studies. Students desiring this major should consult the department as early as possible for guidance in establishing a broad background for specialization.

Graduate Work. The graduate curriculum is offered to students interested in social work as a profession and leads to a certificate on successful completion of forty-five quarter hours. Prerequisite: graduate standing, thirty-six quarter hours in courses in the social sciences and the consent of the department. Students lacking the prerequisite number of hours in the social sciences will be required to carry additional courses to make up the deficiency in this field. Application should be made to the department in advance of registration.

100 **PUBLIC WELFARE ADMINISTRATION.** (2) III Wetzel
Philosophy, background, and methods of tax-supported social work. The inter-relationship of federal, state, and local services; standards and supervision as influenced by federal security legislation. **Prerequisite: S. W. 122 and 151.**

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* Open to Freshmen.

105 CHILD WELFARE SERVICES. (4) II, IV Wetzel
A study of community and national programs for child care and protection, including aid to dependent children and other social security services.

110 PSYCHIATRIC INFORMATION FOR SOCIAL WORKERS. (2) III
An analysis of personality development and behavior patterns with special reference to psychiatric interpretation and their implication for social case work. For majors in the department. **Prerequisite: eight hours in social work.**

113 GENERIC SOCIAL CASE WORK I. (2) III
An introductory course in the generic principles of social case work. Discussion based on selected readings and case records. For majors in the department. **Prerequisite: eight hours in social work.**

115 SOCIAL STATISTICS I. (2) II Wetzel
A study of the application of statistics to social work problems. Emphasis is placed on the critical evaluation and interpretation of statistical material drawn from selected studies.

116 SOCIAL INVESTIGATION. (2) I Wetzel
A consideration of social work problems. Successive steps in the process are considered, with illustrations drawn from pertinent welfare studies.

122 FIELDS OF SOCIAL WORK. (4) I, II, III, IV Wetzel
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.

124 ORIENTATION TO FIELD WORK PRACTICE I. (4) I Wetzel
An introduction to field work practice. Lectures, discussions, and observational visits.

130a, b COMMUNITY ORGANIZATION FOR SOCIAL WELFARE. (2) II, III Isackes
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. **Prerequisite or concurrent, S.W. 122.**

131 INTRODUCTION TO FIELD WORK PRACTICE IN COMMUNITY ORGANIZATION. (2) III Isackes
One hundred clock hours of supervised work in planning and execution of simple projects in community organization.

151 PUBLIC ASSISTANCE. (2) II, IV Wetzel
A study of the current function of public assistance upon the federal, state, and local levels with emphasis on the public assistance provision of the social security act, general relief, and work relief policies. **Prerequisite or concurrent, S.W. 122.**

217 GENERIC SOCIAL CASE WORK II. (2) II
A continuation of course 113 with emphasis upon the application of case work principles in problems of increasing complexity.

220a SUPERVISED FIELD WORK. (3) I, IV
150 clock hours of supervised field work in a public or a private agency.

220b SUPERVISED FIELD WORK. (3) II, IV
150 clock hours of supervised field work in a public or private agency.

220c SUPERVISED FIELD WORK. (4) III, IV
200 clock hours of supervised field work in a public or private agency.

221 ADVANCED SOCIAL CASE WORK I. (2) III
An advanced course built around the theoretical aspects of case work problems encountered by the students in their field work, and supplemented by cases presenting other problems.

225 SOCIAL INSURANCE. (2) III Wetzel
A study of social insurance in Europe and the United States. Emphasis will be given to the problems in administration, financing, and coverage.

227 RURAL SOCIAL WORK PROBLEMS. (4) III
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.

SOCIOLOGY

Professors Sanders† and Best, Part-Time Professor Bower, and Assistant Professor Holmes.

UPPER DIVISION REQUIREMENTS—Junior and Senior Years

Requirements in the Field of Concentration: Sixty quarter hours of advanced work in the field of Social Studies during the junior and senior years, including the major work.

Requirements for a Major. Prerequisite: Sociology 1, and one of the following: 2, 7, 18. **Required:** Minimum of 22 quarter hours of advanced work in Sociology, including at least 8 quarter hours in Theory and Methodology, 8 quarter hours in one of the other sub-divisions below, and Sociology 20a, b, c. Comprehensive examination in senior year.

I. Introductory and General Sociology

***1 INTRODUCTORY SOCIOLOGY. (5) I, II, III, IV** Best and Holmes
A survey of the basic elements of culture, collective behavior, communities, social institutions, and social change. Basic concepts required for the analysis of sociological data are systematically considered. Not open to seniors.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to Freshmen.

*2 **MODERN SOCIAL PROBLEMS. (5) II, IV** **Best**
An introductory course involving an examination of selected social problems of the present day. Some topics dealt with are: family disorganization, poverty, crime, racial issues, handicapped classes, housing conditions, population movements, social implications of industrial development, etc. Not open to seniors.

*7 **SOCIAL INSTITUTIONS. (4) I**
A comparative analysis of the familial, economic, aesthetic, religious, and other basic institutions of human society.

20a-c **TUTORIAL WORK IN SOCIOLOGY. (4) I**
Conferences, assigned readings, reports, etc. For senior majors.

RELATED COURSES IN OTHER DEPARTMENTS

Anthropology *1a, b, c. General Anthropology (9)
Philosophy 21. Introduction to Philosophy (4)
Zoology 108a, b. Principles of Zoology (6)
Political Science *51. American Government (5)
Psychology *1. Introduction to Psychology (6)
Economics *1. Principles of Economics (5)
Geography *1a. Elements of Geography (4
Lower division history courses

II. Theory and Methodology

105 **SOCIAL THEORY: PLATO TO COMTE. (4) I** Sanders
The social theories of representative social thinkers, together with a brief study of their lives and the time in which they lived. Extensive reading of their works.

114a, b **INDEPENDENT WORK IN SOCIOLOGY. (1, 1) II, III, IV** Staff
Study of some special topic by duly authorized students.

122a, b **SOCIOLOGICAL THEORY AND METHODOLOGY. (4, 4) I, II**
A study of the leading developments in sociological theory and methology from Comte to the present time.

124 **TECHNIQUES OF SOCIAL INVESTIGATION. (4) III**
A study of the practical applications of sociology in organizing, conducting, and interpreting social surveys and other forms of concrete research. Some background in statistics desirable for the student.

201a, b **SOCIOLOGY SEMINAR. (2, 2) II, III**
Consideration mainly of methods of research and of current sociological literature.

225 **SYSTEMATIC SOCIOLOGY. (4) I**
An intensive study of certain selected sociological theorists such as Weber, Durkheim, Simmel, Pareto, and others.

RELATED COURSES IN OTHER DEPARTMENTS

Philosophy 31. Logic (4) (And all upper division philosophy courses through 118.)
Political Science 171a. Early Political Theory (5)
Political Science 171b. Modern Political Theory (5)
Mathematics 24. Elementary Theory of Statistics (3)
Mathematics 124. Elementary Theory of Statistics (3)
Social Work 122. Fields of Social Work (4)
Journalism 123a, b. Feature Writing (6)

*Open to Freshmen.

III. Social Organization and Process

18 COMPARATIVE SOCIOLOGY. (4) III Sanders
A study of the dynamics of culture as shown in a primitive, a peasant, and a modern culture system.

27 RELIGION AND CULTURE. (4) III Bower
A functional approach to the understanding of religion as a form of social behavior. Cultural sources of religious ideas and practices are traced, and special attention is given to the church as a social institution, ceremonials as symbols, secularization and other trends. Open to sophomores who have had Sociology 1, and to all upper division students.

28 THE CULTURAL PROCESS AND THE HEBREW-CHRISTIAN RELIGION. (4) IV Bower
A study of the reciprocal relation of religion and culture in the Hebrew-Christian religion as a specific social phenomenon. Cultural substrata of cultic life in Palestine and the Near East as disclosed by archaeological remains. Effects of cultural change upon Hebrew religious thought. Social origins of Christianity. Open to sophomores who have had Sociology I and to upper division students.

109 THE FAMILY. (4) I, III Sanders
A study of the family, both in its historical aspects and in connection with modern life.

112 THE COMMUNITY. (4) II Sanders
Major structural and functional aspects of modern American community types are viewed in terms of developmental processes, human ecology, and current problems of control and planning.

121 POPULATION PROBLEMS. (4) I
A study of movements and trends in population, with respect to race, age, birth-rates, etc.

125 AMERICAN REGIONALISM. (4) I
Regional similarities and differences in American society and culture are delineated, and derived problems are subjected to a sociological analysis.

126 OCCUPATIONAL ORGANIZATION. (4) II
A sociological analysis of the division of labor in contemporary society, including detailed consideration of professionalism through a study of the social organization of several selected professions.

127 DIFFERENTIATION AND STRATIFICATION. (4) III
A systematic treatment of the factors underlying differentiation and stratification, with particular attention to problems of caste and class.

209 SEMINAR IN THE FAMILY. (2) IV Sanders
A seminar for advanced students interested in family research, family counselling, or dealing with family relationships in some other professional capacity.

224 MINORITY GROUPS. (4) III
A sociological scheme of analysis is applied to the special problems of adjustment arising from ethnic group relations and culture contacts.

RELATED COURSES IN OTHER FIELDS

Anthropology 105. Ethnology (3)
Anthropology 106. Ethnology of Europe (3)
Anthropology 107. Ethnology of the New World (3)
Economics 9. Business Organization (4)
Economics 125. Evolution of Economic Institutions (4)
Economics 153. The Economics of Consumption (3)
English 130a, b. Comparative Literature (10)
History 40. History of Kentucky (3)
History 151a, b. The American Frontier (8)
History 180a. History of the Old South (4)
History 138. British Social History during the Tudor Period (3)
History 121. Social and Political Factors in Contemporary Civilization (3)
Journalism 102. Community Journalism (4)
Political Science 52. Municipal Government (5)
Political Science 80. State Government (5)
Political Science 155a, b. Comparative Government (10)
Political Science 168. Government and Politics of Eastern Asia (5)
Romance Languages 16a, b. Civilization of France, Spain, Spanish America, and Italy (2)
Education 101. School Organization (5)
Education 117a, b. History of Education (8)
Education 114. Educational Sociology (4)
Education 35. Introduction to Education (4)
Ancient Languages 120. Survey of Greek Civilization (3)
Ancient Languages 121. Survey of Roman Civilization (3)
Home Economics 154. Family Living (4)
Courses in Social Geography.

IV. Social Disorganization and Reorganization

6 AMERICAN IMMIGRANTS AND RACES. (2) II Best
A study of ethnic groups in the United States, and of national policies for dealing with related problems, including special attention to the Negro problem.

101 POVERTY AND DEPENDENCY. (4) I 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.

102 SOCIAL PATHOLOGY. (4) II Sanders
A systematic examination of the various types of social disorganization, with particular emphasis upon the sociological explanation of underlying factors.

103 CRIMINOLOGY. (4) II, IV 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.

223 SOCIAL TREATMENT OF DELINQUENCY. (4) III Best
Methods for dealing with delinquents are analyzed and evaluated in historical perspective.

226 SOCIAL LEGISLATION. (4) IV Best
Leading developments in the field of social legislation are traced, and current measures and proposals are evaluated.

RELATED COURSES IN OTHER DEPARTMENTS

Psychology 114. Abnormal Psychology (4)
Psychology 124. Mental Hygiene (4)
Psychology 126. Mental Hygiene Observation (4)
History 166. Division and Reunion (4)
Hygiene 100a, b. Public Health (8)
Physical Education 125. Administration and Organization of Recreation (4)
Economics 102. Labor Problems (4)
Economics 114. War Economics (4)
Economics 130. Labor Legislation (4)
Economics 155. Industrial Relations (4)
Education 175a-i. Modern Educational Problems (4 each)
Home Economics 61. Housing (4)
Philosophy 51. Ethics (4)
Courses in Social Work.

V. Personality and the Group

9 INDIVIDUAL DEVELOPMENT AND THE GROUP. **(4) I, II, III, IV** Newbury and Asher
(Same course as Psychology 8, Individual Differences)
A study of socialization from a differential point of view.

21 THE CHILD IN SOCIETY. (4) I, II, III, IV Asher and White
(Same course as Psychology 7, Psychology of the Child)
The development of behavior from birth to maturity. The problems of conduct arising during infancy, childhood and adolescence in relation to child care and training.

25 COLLECTIVE BEHAVIOR. (4) II 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.

104 SOCIAL PSYCHOLOGY. (4) II, IV White
(Same course as Psychology 104, Social Psychology)
Description and explanation of social phenomena in terms of the original and acquired reaction systems of the individual. Topics given special attention: crowd and mob behavior, propaganda, and nationalism.

111 PSYCHO-SOCIAL RELATIONS IN INDUSTRY. (4) I, III Beaumont
(Same course as Psychology 106, Industrial Psychology)
A psycho-social approach to problems arising from the division of labor in modern industrial society.

RELATED COURSES IN OTHER DEPARTMENTS

Psychology 102. Practice in Testing: Personality Tests (3)
Psychology 125. Experimental Child Study (4)
Political Science 170. Political Parties (5)
Political Science 173. Public Opinion (5)
Journalism 120. Seminar in Public Opinion (4)
Commerce 140. Advertising Campaigns (4)

VI. Rural Sociology

(See course offerings under Rural Sociology in the College of Agriculture.)

ZOOLOGY

Professors Funkhouser, Allen, and Brauer; and Dr. Lincicome†, Mr. Muller, and Mr. Schneider.

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

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

Requirements for a Major. Prerequisite: Junior standing; Zoology 1a, 1b, 1c. **Required:** Zoology 7a, 7b, 7c, or 157a, 157b, 157c; Zoology 106; Zoology 108a, 108b; Zoology 114a, 114b, 114c; a minimum of twenty-two quarter hours' work above 1a, b, c, 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 quarter is devoted primarily to the study of the invertebrates.

*1b **GENERAL ZOOLOGY. (4) II** Funkhouser and others
A continuation of Course 1a, but open to students beginning the course. The second quarter is devoted primarily to a study of the higher invertebrates.

*1c **GENERAL ZOOLOGY. (4) III** Funkhouser and others
A continuation of course 1a and 1b, but open to students beginning the course. The third quarter is devoted to the vertebrates.

7a **COMPARATIVE ANATOMY. (3) I** Allen and Muller
Lower 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. **Prerequisite: Zoology 1a, 1b, and 1c.**

7b **COMPARATIVE ANATOMY. (3) II** Allen and Muller
Higher invertebrates. Comparative organology and physiology. Continuation of 7a.

7c **COMPARATIVE ANATOMY. (6) III** Allen and Muller
Systematic consideration of classes, orders, and some families of the vertebrates. Detailed dissection of a few selected types.

11 **NATURE STUDY. (4) IV** Allen
A course in general nature study intended primarily for teachers who desire preparation in the use of natural history material in the elementary schools. Intimate studies of local plants and animals based largely on field work.

101a **HISTOLOGY. (4) I, IV** Brauer and Muller
Histology of the tissues. A course in the technique of the preparation of animal tissues for microscopic study. Practice in imbedding, staining, sectioning, mounting, and identification of tissues. **Prerequisite: Zoology 1a, 1b, 1c.**

101b **HISTOLOGY. (4) II, IV** Brauer and Muller
Histology of the organs. A continuation of Course 101a in which the studies are based on the organs and special attention given to pathology. **Prerequisite: Zoology 101a.**

† See appended list of leaves of absence, resignations, deaths, etc. p. 332.
* Open to freshmen.

102 ORNITHOLOGY. (4) III, IV Funkhouser and 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.

103a GENERAL ENTOMOLOGY. (4) I Allen
A beginning course in the study of insects. Gross anatomy, morphology, and life-histories of representatives of the most important orders.

103b GENERAL ENTOMOLOGY. (4) II Allen
A continuation of Course 103a. Taxonomy and entomotaxy are given special attention during the second quarter.

106 EMBRYOLOGY. (6) III, IV Brauer and Muller
A general course in ontogeny. Studies in maturation, fertilization, cleavage, organogenesis and anomalies of development with laboratory work based on the chick and the pig. **Prerequisite: Zoology 1a, 1b, 1c, and 101a.**

108a PRINCIPLES OF ZOOLOGY. (3) I, IV Funkhouser
(Evolution.) An advanced lecture course open only to juniors, seniors, and graduate students on the fundamental principles of biology. The first quarter is devoted primarily to the study of organic evolution. Three times a week.

108b PRINCIPLES OF ZOOLOGY. (3) II, IV Funkhouser
(Heredity.) A continuation of Course 108a. The second quarter is devoted to the study of heredity, eugenics, and animal instincts. Three times a week.

110a-f INDEPENDENT WORK. (4 ea.) I, II, III Staff
Special problems for individual students who are capable of pursuing independent investigations. **For Zoology Majors.**

114a-d ZOOLOGICAL SEMINAR. (1 ea.) I, II, III Staff
Presentation of results of research; reports on technical papers in current literature; book reviews; news notes; discussions of recent developments in zoology; and 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.

157a INVERTEBRATE ANATOMY. (3) I Allen and Muller
An advanced course on the comparative anatomy of invertebrate animals with special attention paid to phylogeny, organology, and taxonomy. **Prerequisite: Zoology 1a, 1b, and 1c.**

157b, c INVERTEBRATE ANATOMY. (3, 6) II, III Allen and Muller
A continuation of Course 157a devoted to the higher invertebrates.

160 ONTOGENY. (3) II Brauer
Lectures on theories and philosophies of organismic development. Reports on the literature. **Prerequisite: Zoology 1a, 1b, 1c, and at least one course numbered above 100.**

210a-c PROBLEMS IN ZOOLOGY. (4) I, II, III Staff
Students qualified to undertake graduate work will be assigned to appropriate research problems to be pursued independently. Conferences, laboratory, field, and library work. Eight hours per week. Written reports.

Ichthyology and Animal Ecology and Field Biology are offered in alternate years.

COLLEGE OF AGRICULTURE AND HOME ECONOMICS

ORIENTATION

Agriculture and Home Economics

Dean Cooper, Assistant Dean Horlacher, and Staff

A FRESHMAN ORIENTATION. (1) I, II, III Horlacher, Steele, and Barkley
The purpose of freshman orientation is to aid freshmen in becoming acquainted with the College and the University and in solving problems which confront them as students. Required of freshmen during their first quarter in the college. Lecture, one hour.

101 SENIOR ASSEMBLY. (0) Cooper and Horlacher
The purpose of the senior assembly is to present to graduating seniors various aspects of their relationships to work which may be undertaken after graduation.

AGRICULTURAL ENTOMOLOGY

Professor W. A. Price and Associate Professor Townsend

1 AGRICULTURAL ENTOMOLOGY. (4) I, II, III, IV Townsend
A general consideration of the fundamentals of insect structure, biology, and classification, with frequent discussions of current topics relating to both beneficial and destructive insects. Lectures, 3 hours; laboratory, 2 hours.

2 APICULTURE. (4) III Price and Townsend
The anatomy of the bee; the colony; location and equipment of the apiary; production of comb and extracted honey; diseases and enemies of bees. Much of the laboratory work has to do with manipulation of beekeeping equipment and with the bees themselves. Lectures, 3 hours; laboratory, 2 hours.

3 INSECTS OF THE HOME AND FLOWER GARDEN. (3) II Townsend
Life histories, habits and control of the more common insects which are injurious and troublesome in the home and flower garden. Lectures, 2 hours; laboratory, 2 hours.

102 ECONOMIC ENTOMOLOGY. (4) IV Townsend
Especially planned for those intending to take up vocational agricultural teaching and county agent work. The life history, control, and means of identification of the common and important economic insects of Kentucky are considered. The making and care of school collections, cages, etc., are described. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite: A. E. 1.**

103 ECONOMIC ENTOMOLOGY: FRUIT AND GARDEN INSECTS. (4) I Townsend
Life histories, habits, distribution, and control of insects injurious to fruit and garden crops, with special attention to those species found in Kentucky. The various diseases, parasites, and predators of these injurious species are also given attention. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite: A. E. 1.**

104 ECONOMIC ENTOMOLOGY: FARM CROP INSECTS AND ANIMAL PARASITES. (4) III Townsend
Life histories, habits, distribution, and control of insects injurious to common farm crops including those of stored grain and forage; also insect parasites of the common farm animals. The various diseases, parasites, and predators of these injurious species are given attention. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite: A. E. 1.**

105a-d SYSTEMATIC AND TECHNICAL AGRICULTURAL ENTOMOLOGY. (3 ea.) I, II, III, IV Townsend
Insect physiology, anatomy, ecology, and taxonomy, entomological literature and technique; studies of special groups of insects. Time to be arranged. **Prerequisite: A. E. 1, and any of the following: 102, 103, 104.**

201a-d ENTOMOLOGICAL PROBLEMS. (3 ea.) I, II, III, IV Price
Investigations of chosen insect problems, including original work. Discussion and assignment of current insect subjects. Time to be arranged. **Prerequisite: A. E. 1, 103, 104, 105a-d.**

AGRICULTURAL EXTENSION

Professor Bryant

101 METHODS IN AGRICULTURAL EXTENSION. (1) III Bryant
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. Lecture, 1 hour.

AGRONOMY

Professors Kinney, Fergus, Karraker, Kelley, and Valleau, and Associate Professors Ligon, and Young

Courses in Crops

1 ELEMENTARY FARM CROPS. (5) I, III Fergus and Ligon
A survey course considering geographical distribution, science of production, and uses of important field crops. Lectures and recitations, 4 hours; laboratory, 2 hours.

2 MARKET GRAIN GRADING AND GRAIN JUDGING. (3) I Fergus
Studies of federal classes and grades of market grains. Attention is also given to show standards. Laboratory, 6 hours. **Prerequisite: Agr. 1.**

104 ADVANCED CROPS: FORAGE CROPS. (4) I, IV (Alternate Years) Fergus
A comprehensive study of forage crops with special emphasis upon their production in Kentucky. Lectures and recitations, 4 hours. **Prerequisite: Agr. 1; Bot. 1b.**

105 ADVANCED CROPS: TOBACCO AND CEREALS. (4) II Kinney
Tobacco and the important cereal crops are studied in considerable detail as regards distribution, soil, climatic adaptation, and technique of production. Lectures and recitations, 4 hours. **Prerequisite: Agr. 1; Botany 1b.**

106 FIELD CROP IMPROVEMENT. (3) II Kinney
A sudy of the principles involved and the technique used in breeding crop plants. Lectures and recitations, 3 hours. **Prerequisite: Agr. 1; A. I. 61.**

107 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. Lecture, 1 hour; laboratory, 2 hours.

200a-c AGRONOMY SEMINAR. (1 ea.) I, II, III Agronomy Staff

204a, b SPECIAL PROBLEMS IN PRODUCTION OF FORAGE CROPS. (3, 3) III, IV Fergus
Intensive studies of research relative to particular problems in forage crop production. **Prerequisite: Approval of Instructor.**

205a, b SPECIAL PROBLEMS IN PRODUCTION OF TOBACCO OR CEREALS. (3, 3) I, II Kinney

Courses in Soils

10 SOILS. (4) I, III Ligon
A general study of the origin, classification, properties, and management of soils. It is desirable that students take Agronomy 11 Concurrently. Lectures and recitations, 4 hours. **Prerequisite: Chem. 1b.**

11 SOILS LABORATORY. (3) I, III Ligon
Laboratory and field exercises on important soil properties and processes, designed to accompany Agronomy 10. Two three-hour laboratory periods. **Prerequisite or parallel: Agr. 10.**

110 SOIL BIOLOGY. (4) II Ligon
A study of soil organisms and biological soil processes in relation to soil productivity. Lecture, 1 hour; laboratory, 6 hours. **Prerequisite: Agr. 10; Bact. 52 desirable.**

112a, b SPECIAL PROBLEMS IN SOILS. (3, 3) I, II, III, IV Karraker
study of some special phases of soils not covered in other courses. Only three quarter hours may be taken in a term. **Prerequisite: Agr. 10 and approval of instructor.**

113 METHODS AND RESULTS IN AGRONOMY EXPERIMENTATION. (4) II Ligon
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, 4 hours. **Prerequisite: Agr. 10.**

115 SOIL MANAGEMENT. (4) II Ligon
Deals with erosion, soil moisture, tillage operations, soil organic matter and nitrogen, including animal and green manures, lime, and fertilizers. Lectures, 4 hours. **Prerequisite: Agr. 10.**

119 GENESIS, NATURE, AND CLASSIFICATION OF SOILS. (3) III Ligon
The origin and nature of soils are considered with particular reference to soil classification. Lectures and recitations, 3 hours. **Prerequisite: Agr. 10 and approval of instructor.**

200a-c AGRONOMY SEMINAR. (1 ea.) I, II, III Agronomy Staff

212a-d RESEARCH IN SOILS. (3 ea.) I, II, III, IV Karraker and Ligon
Each course offered each quarter, but only three hours may be taken in a quarter. **Prerequisite: Approval of instructors.**

Courses in Plant Pathology

23 PLANT PATHOLOGY. (6) I Valleau
A general survey of the causes, effects of, and methods of control of plant diseases. Recitations, 3 hours; laboratory, 6 hours. **Prerequisite: Bot. 1a, and 1b**

200a-c AGRONOMY SEMINAR. (1 ea.) I, II, III Agronomy Staff

223a, b LITERATURE OF PLANT PATHOLOGY. (4, 4) I, II Valleau
A survey of the literature of plant pathology. **Prerequisite: Agr. 23.**

Courses in Farm Engineering

1 MECHANICS OF THE FARMSTEAD. (4) I, II, IV Kelley and Young
A study of the fundamentals of engineering as applied to agriculture. The course includes: mechanics of materials, transmission of power, farm implements, farm sanitation, equipment, and farm electrical and heating problems. Lectures and recitations, 3 hours; laboratory, 2 hours.

2 FARM MOTORS. (4) III Kelley and Young
A study of the fundamental principles governing the selection, construction, operation, and repair of motors, tractors, and tractor equipment for farm use. Lectures and recitations, 3 hours; laboratory, 2 hours.

3 FARM STRUCTURAL ENGINEERING. (3) I, II Young
A combination drawing and shop course in the construction, care, and repair of farm buildings and equipment; drawing, use of lumber, and farm woodworking. Lecture, 1 hour; laboratory, 4 hours.

4a FARM SHOP. (3) II, III, IV Young
Principles and practices in farm tool sharpening, soldering, painting, and concrete work; selection, use, and care of tools; shop exercises and projects in repair and construction of farm equipment. Lecture, 1 hour; laboratory, 4 hours.

4b FARM SHOP. (3) I, III, IV Young
Principles and practice in farm metal work including cold metal work, forging, gas and electric welding, pipe fitting, and machinery repair; selection, use, and care of tools; shop exercises and projects in repair and construction of farm equipment. Lecture, 1 hour; laboratory, 4 hours.

101a-d SPECIAL PROBLEMS. (4 ea.) I, II, III, IV Kelley and Young
This course is designed to permit advanced students to make an intensive study of some phase of agricultural engineering in which they are particularly interested. **Prerequisite: F. E. 1 and approval of instructor.**

102 DAIRY ENGINEERING. (4) II 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, 3 hours; laboratory, 2 hours. **Prerequisite: F. E. 1.**

104 RURAL ELECTRIFICATION. (3) II 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. Lecture and recitations, 3 hours.

105 ENGINEERING PRACTICES IN SOIL MANAGEMENT. (4) III, IV Kelley
Surveying, mapping, and determinating areas of farm land; designing farm drainage systems; problems in controlling erosion with terraces and other mechanical structures. Lectures, 2 hours; laboratory, 4 hours.

ANIMAL INDUSTRY

Professors Garrigus, Horlacher, Wilford, Ely, Insko, and Steele; Associate Professor Morrison; and Assistant Professors Barkman, Pifer, and Wightman.

Courses in Animal Husbandry

1 FARM LIVESTOCK PRODUCTION. (5) II, IV Pifer
Importance and use of livestock products; types, market classes, and grades of beef cattle, sheep, swine, horses, and mules; the origin, development, and characteristics of the more important breeds. Lectures, 3 hours; laboratory, 4 hours.

2 LIVESTOCK JUDGING. (4) III Pifer
Judging beef cattle, sheep, swine, draft horses, and mules. Practice in writing reasons and giving reasons orally. Laboratory, 8 hours. **Prerequisite: A. I. 1.**

3 LIVESTOCK MANAGEMENT. (1) III Pifer and Garrigus
Strictly practical livestock management problems are handled in this course, including preparation of animals for show and sale ring. Laboratory, 2 hours. **Prerequisite: A. I. 1.**

4 ADVANCED LIVESTOCK MANAGEMENT. (1) I Pifer
Intensive training in approved livestock management practices, primarily for those who intend to manage livestock farms. Laboratory, 2 hours. **Prerequisite: A. I. 1 and A. I. 3.**

5 LIGHT HORSE HUSBANDRY. (4) III Garrigus
A brief study of the breeds of light horses; selection, feeding, and management; fundamental instruction in equitation. Not open to freshmen. Lectures, 2 hours; laboratory, 4 hours.

100 ANIMAL BREEDING. (5) II Steele
Breeding plans, inbreeding, linebreeding, outcrossing; disease resistance; inheritance of lethal characters; genetics of sex; heredity in cattle, sheep, swine, horses, and laboratory animals. Given alternate years. Lectures, 5 hours. **Prerequisite: A. I. 61.**

101 FARM BUTCHERING AND CURING MEATS. (5) I, II Wilford
Slaughtering and blocking of beeves, veals, hogs, and lambs; judging on foot and on the hook; wholesale and retail cuts; meat curing, with special emphasis on pork. Lectures, 2 hours; laboratory 6 hours. **Prerequisite: A. I. 1.**

102 ADVANCED LIVESTOCK JUDGING. (4) I Pifer
Primarily for judging team candidates. Open only to those who have made good standings in the prerequisite courses. Lecture and laboratory. **Prerequisite: A. I. 1 and A. I. 2.**

103 WORK STOCK PRODUCTION. (3) II Horlacher
History and importance of the horse and mule industry; selection, breeding, feeding and management of horses and mules. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: A. I. 1 and A. I. 81.**

104 SHEEP PRODUCTION. (4) III Horlacher
History and importance of the sheep industry; selection, breeding, feeding, and management of sheep; production and handling of wool. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite: A. I. 1, and A. I. 81.**

105 BEEF PRODUCTION. (4) III Garrigus
History and importance of the beef cattle industry; selection, breeding, feeding, and management of beef cattle. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite: A. I. 1, and A. I. 81.**

106 PORK PRODUCTION. (4) I Wilford
History and importance of the swine industry; selection, breeding, feeding, and management of swine. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite: A. I. 1, and A. I. 81.**

109a-d SPECIAL PROBLEMS IN ANIMAL HUSBANDRY. (3 ea.) I, II, III, IV Animal Husbandry Staff
Approval of instructor required.

200a-c ANIMAL INDUSTRY SEMINAR. (1 ea.) I, II, III Staff

201a-d RESEARCH IN MEATS. (3 ea.) I, II, III, IV Wilford
Problems involving original investigation.

203a-d RESEARCH IN HORSE HUSBANDRY. (3 ea.) I, II, III, IV Horlacher
Problems involving original investigation.

204a-d RESEARCH IN SHEEP HUSBANDRY. (3 ea.) I, II, III, IV Horlacher
Problems involving original investigation.

205a-d RESEARCH IN BEEF CATTLE HUSBANDRY. (3 ea.) I, II, III, IV Garrigus
Problems involving original investigation.

206a-d RESEARCH IN SWINE HUSBANDRY. (3 ea.) I, II, III, IV Wilford
Problems involving original investigation.

Courses in Dairying

21 FARM DAIRYING. (4) I, IV Ely and 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. Lectures, 3 hours; laboratory, 2 hours.

22 JUDGING DAIRY PRODUCTS. (2) I Barkman
A study of the accepted standards of judging market milk, butter, ice cream, cheese, and starters; practice in scoring these products in accordance with standard methods. Lecture, 1 hour; laboratory, 2 hours.

23 JUDGING DAIRY CATTLE. (3) III, IV — Ely
Selection of sires, cows, and heifers with due consideration for breed and dairy type; application of the principles involved in the problem of herd improvement. Laboratory, 6 hours. **Prerequisite: A. I. 21.**

120 DAIRY CATTLE BREEDING. (4) III, IV (Alternate) — Ely
The application of genetics to present day problems of breed and herd improvement; the progeny testing of sires; type classification, selective registration; the rise and fall in popularity of prominent families and strains within the leading dairy breeds. Lectures, 3 hours; laboratory 2 hours. **Prerequisite: A. I. 61.**

121 DAIRY CATTLE FEEDING AND MANAGEMENT. (4) I, IV (Alternate) — Ely
The application of the principles of nutrition to dairy cattle feeding; current methods contributing to maximum efficiency in the production of quality dairy products on the farm. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite: A. I. 81.**

122 ADVANCED DAIRY CATTLE JUDGING. (2) I — Ely
Primarily for judging team candidates. Open only to those who have made good standings in the prerequisite courses. Lectures and laboratory. **Prerequisite: A. I. 21, and A. I. 23.**

123 DAIRY BACTERIOLOGY. (5) II — Morrison
The application of bacteriological principles to the production and processing of milk and other dairy products, involving mode of entrance of micro-organisms into dairy products, effects of their growth and methods for their control. Lectures, 2 hours; laboratory, 6 hours. **Prerequisite: Bact. 52 or Bact. 102.**

124 BUTTER. (3) I — Barkman
A study of the various problems and processes involved in the manufacture and storage of butter. Lecture, 1 hour; laboratory, 6 hours. **Prerequisite: A. I. 21.**

125 ICE CREAM. (3) II — Barkman
A study of the problems and processes involved in the manufacture and handling of ice cream. Lecture, 1 hour; laboratory, 6 hours. **Prerequisite: A. I. 21.**

126 MARKET MILK. (3) III — Morrison
A study of the problems connected with the production and handling of market milk. Lectures, 2 hours; laboratory, 3 hours. **Prerequisite: A. I. 21.**

127 CHEESE. (3) II — Barkman and Morrison
A study of problems and processes involved in the manufacture and ripening of cheddar and other common cheeses. Lecture, 1 hour; laboratory, 6 hours. **Prerequisite: A. I. 21.**

128 TECHNICAL CONTROL OF DAIRY PRODUCTS. (3) III — Morrison
Various chemical and bacteriological tests used in the control of production or processing of dairy products. Laboratory and recitation, 6 hours. **Prerequisite: A. I. 21, and A. I. 123.**

129a-d SPECIAL PROBLEMS IN DAIRYING. (3 ea.) I, II, III, IV — Dairy Staff
Approval of instructor required.

221a-d RESEARCH IN DAIRYING. (3 ea.) I, II, III, IV Ely and Morrison
Special problems involving original investigation on the part of the student in either dairy production or dairy manufacturing.
See also A. I. 200, Animal Industry Seminar.

Courses in Poultry Husbandry

41 FARM POULTRY PRODUCTION. (4) III, IV Wightman
Principles of poultry husbandry; breeds and poultry improvement; selection and culling; incubation and brooding; feeding, housing, and disease control; marketing poultry products. Lectures, 3 hours; laboratory and demonstrations, 2 hours.

43 HATCHERY MANAGEMENT. (4) II Wightman
Principles involved in operating incubators and brooders; hatchery operation and management; factors influencing the avian embryo; practice in the operation of commercial incubators. Lectures, 2 hours; laboratory, 4 hours. **Prerequisite: A. I. 41 and approval of instructor.**

140 POULTRY BREEDING. (4) II Steele
Genetic principles involved in poultry breeding; disease resistance; inheritance of egg production and related character; development of breeding programs. To be given in alternate years. Lectures, 4 hours. **Prerequisite: A. I. 41, and A. I. 61.**

141 ADVANCED POULTRY PRODUCTION. (5) I, IV Wightman
Studies of control measures in poultry diseases, nutrition, marketing; flock management and replacement. Lectures, 3 hours; laboratory and demonstrations, 4 hours. **Prerequisite: A. I. 41.**

149a-d SPECIAL PROBLEMS IN POULTRY. (3 ea.) I, II, III, IV Wightman
Approval of instructor required.

241a-d RESEARCH IN POULTRY. (3 ea.) I, II, III, IV Wightman
Problems involving original investigation.
See also A. I. 200, Animal Industry Seminar.

Courses in Genetics

61 GENETICS. (4) I, III, IV Steele
The elementary principles of heredity and their relationship to plant and animal breeding. Attention is directed briefly to human heredity. Lectures, 4 hours. Not open to freshmen.

161 GENETICS. (4) III, IV Steele
Lectures of A. I. 61 and assigned readings. Primarily for graduate students.

162 ADVANCED GENETICS. (4) II Steele
Concerned chiefly with the physical basis of heredity, mutations and chromosomal aberrations, linkage, genetics and development, and reports on current literature. Lectures, 4 hours. **Prerequisite: A. I. 61 or A. I. 161.**

169a-d SPECIAL PROBLEMS IN GENETICS. (3 ea.) I, II, III, IV Steele
Approval of instructor required.

261a-d RESEARCH IN GENETICS. (3 ea.) I, II, III, IV Steele
Problems involving original investigation.
See also A. I. 100, Animal Breeding; A. I. 120, Dairy Cattle Breeding; A. I. 140, Poultry Breeding; A. I. 200, Animal Industry Seminar.

Course in Animal Nutrition

81 PRINCIPLES OF ANIMAL NUTRITION. (4) III, IV 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. Lectures, 4 hours. **Prerequisite: Chem. 1a.**

ANIMAL PATHOLOGY

Professors Dimock and Hull

101 ANATOMY AND PHYSIOLOGY OF DOMESTIC ANIMALS. (4) I Hull
Correlation of structure and function of the organs and systems of the animal body; a study of anatomy and physiology as related to work offered in courses in livestock judging, animal nutrition, butchering, animal breeding, infectious diseases, and animal hygiene. Lectures, 3 hours; demonstration lecture, 1 hour. **Prerequisite: Junior standing.**

102 INFECTIOUS DISEASES OF DOMESTIC ANIMALS. (4) II Dimock
Distribution, general nature, manner of dissemination, methods of control, prevention and eradication of infectious and parasitic diseases of animals. Lectures, 3 hours; demonstration lecture, 1 hour. **Prerequisite: A. P. 101, or approval of instructor.**

103 ANIMAL HYGIENE. (4) III Dimock and Hull
A consideration of both general and specific measures designed to promote health and prevent disease. Animal Hygiene includes feed and water, housing and ventilation, yards and pastures, sanitation, and environment. All are part of the many problems to be considered in a program of animal health. **Prerequisite: A. P. 101 and A. P. 102, or approval of instructor.**

104a-c SPECIAL PROBLEMS IN ANIMAL PATHOLOGY. (3 ea.) I, II, III Dimock and Hull
Prerequisites: A. P. 101, A. P. 102, and A. P. 103 or approval of instructor.

201a-c INVESTIGATIONS IN ANIMAL DISEASES. (3 ea.) I, II, III Dimock
Prerequisite: A. P. 101, A. P. 102, A. P. 103 or equivalent. This course is open only to persons who have degrees in veterinary medicine.

FARM ECONOMICS

Professors Nicholls and Beers and Associate Professor Bradford

1 AGRICULTURAL ECONOMICS. (5) I, II, III, IV Bradford
The principles of economics as applied to agriculture. A study of the agricultural industry from historic, geographic, and economic approaches. **Prerequisite: Ec. I.**

101 PRODUCTION ECONOMICS. (3) I
Economic analysis appropriate to the examination of problems of agricultural production; enterprise relationships; interregional competition. **Prerequisite: F. E. 1 and approval of instructor.**

110 FARM MANAGEMENT. (4) I, II, III, IV Bradford
A study of the organization of farms and of the factors contributing to high net earnings. Problem assignments assist students to apply the principles of production economics to farming. **Prerequisite: F. E. 1.**

111 ADVANCED FARM MANAGEMENT. (3) I Nicholls
A fuller study of the principles of farm management considered in course 110. Current and recent literature of farm organization and management will be studied and some consideration given to farm management as observed in European countries when such has a bearing on management principles in this country. **Prerequisite: F. E. 110 and approval of instructor.**

112a-c SPECIAL PROBLEMS IN FARM MANAGEMENT. (3 ea.) I, II, III Nicholls
Students are assigned some special problem such as the cost of producing some class of farm products, or profitable farm organization in a specified community. **Prerequisite: F. E. 110 and approval of instructor.**

113 TYPES AND SYSTEMS OF FARMING. (3) III Nicholls
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: F. E. 110 and approval of instructor.**

114a-c FARM MANAGEMENT FOR A CHANGING AGRICULTURE. (1 ea.) IV Bradford
Application of recent developments in agriculture to the management of individual farms; extent and methods of making adjustments in farm organization; use and influence of mechanization, credit, and governmental programs.

115 FARM ACCOUNTING. (3) II Bradford
An application of some of the fundamental principles of accounting to the study of the organization and operation of farms. Lectures, 2 hours; laboratory, 2 hours.

120 LAND ECONOMICS. (3) I
A study of land resources in relation to present and prospective needs; examination of the economic characteristic of land and of the bases for classifying land; land income, land values, and tenure in relation to land use and conservation. **Prerequisite: F. E. 1 or approval of instructor.**

121 LAND-USE PLANNING. (3) II
A study of the national needs and national policies which led to the land-use pattern; social and economic implications of the present 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. **Prerequisite: F. E. 120 or approval of instructor.**

122 LAND VALUE AND APPRAISAL. (3) II
The capitalization process, and other devices for valuing farm land; appraisal procedures of the Federal Land Banks and of other credit institutions. **Prerequisite: F. E. 120 or approval of instructor.**

123a-c CURRENT LAND PROBLEMS. (1 ea.) IV
A study of the requirements for and the supply of agricultural land in the United States.

200a-c **AGRICULTURAL ECONOMICS SEMINAR. (0) I, II, III** Staff
Discussions and papers on methods, problems, current literature, and research in the field of agricultural economics. Required of all graduate students in the department.

201a-c **RESEARCH IN FARM ECONOMICS**
(3 ea.) I, II, III, IV Nicholls and Staff
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.

202a, b **ECONOMICS OF PRODUCTION AS APPLIED TO AGRICULTURE. (3, 3) II, III**
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. **Prerequisite: Approval of instructor.**

203 **COST, PRICE, AND PRODUCTION RELATIONSHIPS IN AGRICULTURE. (3) III**
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. **Prerequisite: Approval of instructor.**

Courses in Rural Sociology

101 **RURAL SOCIOLOGY. (3) I, IV** 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, and individual reports, 3 hours. **Prerequisite: Soc. 1 or Economics 1.**

102 **RURAL LEADERSHIP AND SOCIAL CHANGE, (3) II** Beers
Rural culture and tradition; social processes in rural life, rural-urban relationships; survey of modern and contemporary changes within the rural community 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, and student projects, 3 hours. **Prerequisite: R. S. 101 or approval of instructor.**

103a-c **SPECIAL PROBLEMS IN RURAL LIFE. (3 ea.) I, II, III** Beers
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: Approval of instructor.**

104a-c **RURAL LIFE. (1 ea.) IV** Beers
The responses of rural people and their social organization to current trends in southern states and in the nation.

201a-c **RESEARCH IN RURAL SOCIOLOGY. (3 ea.) I, II, III** Beers
Individual graduate research with correlated study of rural social research types and methods. **Prerequisite: Introductory course in statistics.**

202 SEMINAR IN RURAL ORGANIZATION. (3) I Beers
Organizational behavior of farmers; social analysis of farmers' organizations and other rural interest groups, national, state, and local; comparative study of group types; trends affecting the social structure of rural communities; agricultural planning and social planning in rural communities. **Prerequisite: Approval of instructor.**

203 SEMINAR IN RURAL SOCIAL ATTITUDES. (3) II Beers
The nature and genesis of rural attitudes and their relation to rural social control; analysis of contemporary rural attitudes and opinion. **Prerequisite: Approval of instructor.**

HORTICULTURE

Professors Olney and Elliott, Associate Professors Waltman and Emmert, and Instructor Wiggin

1 GENERAL HORTICULTURE. (3) II, III Olney
A study of the principles and practices basic to the production of fruit, flowers, and vegetable crops. Lectures, 3 hours.

2 PRINCIPLES OF SPRAY PRACTICE. (2) I Waltman
A study of the principles and practice of spraying for the control of pests of horticultural crops. Lecture, 1 hour; laboratory, 2 hours.

10 VEGETABLE GARDENING. (2) III Olney
A study of the culture of vegetables for the home garden. Lectures, 2 hours.

20 ELEMENTARY LANDSCAPE GARDENING. (2) II Elliott
The principles of landscape as applied to the planting of home grounds, both rural and urban. **Lectures, 2 hours.**

22 ELEMENTARY FLORICULTURE. (2) III Elliott
The fundamentals of growing flowers and decorative plants, both outside and inside, as house plants. Lectures, 2 hours.

103 POMOLOGY: POME FRUITS. (3) I Waltman
A course dealing with the theory and practice of commercial pome fruit, with major emphasis on apple growing. Lecture, 2 hours; laboratory, 2 hours. **Prerequisite: Hort. I.**

104 POMOLOGY: STONE FRUITS. (3) I Waltman
A detailed study of commercial peach, plum and cherry growing, with special emphasis on peach production. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: Hort. 1.**

105 POMOLOGY: SMALL FRUITS. (3) I Waltman
A detailed study of the care and management of commercial plantings of strawberries, raspberries, and other bush fruits. Lectures, 2 hours; laboratory, 2 hours, first half; lectures, 3 hours a week, last half. **Prerequisite: Hort. 1.**

106a-c SPECIAL PROBLEMS IN POMOLOGY. (3 ea.) I, II, III Waltman
This course is designed to meet the need for advanced work. **Prerequisite: Hort. 1, Hort. 103, Hort. 104, and Hort. 105, and approval of instructor**

110 THE PRINCIPLES OF VEGETABLE GARDENING.
(3) III Emmert
A study of the fundamental principles underlying commercial production of vegetables. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: Hort. 1, and Hort. 10.**

111 GROWING VEGETABLE PLANTS UNDER GLASS.
(3) I Emmert
Production of vegetable plants grown for transplanting; types of hotbeds, cold frames, and simple greenhouse structures. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: Hort. 110.**

112a-c SPECIAL PROBLEMS IN VEGETABLE CROPS.
(3 ea.) I, II, III Emmert
This course is designed to meet the need for advanced work. **Prerequisite: Hort. 1, Hort. 110, and approval of instructor.**

120 LANDSCAPE GARDENING. (3) III Elliott
Adaptation of the principles of landscape as applied to present conditions; coordination of buildings with surroundings; selection and use of material and their requirements. Lectures, 2 hours; laboratory, 2 hours.

121 ADVANCED LANDSCAPE GARDENING. (3) II Elliott
A continuation of Horticulture 120, with special emphasis on design and use of materials. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: Hort. 120.**

122 FLORICULTURE. (2) III Elliott
A detailed study of certain specific groups of flowers such as roses, bulbs and iris. Lectures, 2 hours.

123 PLANT PROPAGATION. (3) II Elliott
A study of the methods of propagating horticultural plants. Lectures, 2 hours; laboratory, 2 hours. **Prerequisite: Hort. 1; Bot. 1a, and Bot. 1b.**

124a-c SPECIAL PROBLEMS IN ORNAMENTAL HORTICULTURE. (3 ea.) I, II, III Elliott
This course is designed to meet the need for advanced work. Approved of the instructor required. **Prerequisite: Hort. 1, Hort. 120, Hort. 121; Bot. 1a, and Bot. 1b.**

125 PLANTS AND PLANTING MATERIALS. (2) III Elliott
A study of woody and herbaceous plants, their identification, suitability for landscape uses and the effect produced. Lecture, 1 hour; laboratory, 2 hours. **Prerequisite: Hort. 120.**

200a-c SEMINAR. (1 ea.) I, II, III Olney and Staff

201a-c RESEARCH IN HORTICULTURE. (3 ea.) I, II, III Olney and Staff
Prerequisite: Approval of instructors.

Courses in Forestry

1 OUTLINE OF FORESTRY. (5) II Wiggin
A general introduction to forestry, dealing with the concept of forestry, what it is, how it is developing, what is being done, and why it is an essential enterprise. Fundamental problems of forest and woodland development in Kentucky are analyzed. Lectures, 4 hours; laboratory, 2 hours.

101a FARM WOODLANDS. (4) II Wiggin
History of forests and woodlands in the United States and Kentucky; silvics; important trees of Kentucky; structure and physiology of trees; ecology of woodlands; volume of woodland products. Lectures, 3 hours; laboratory, 2 hours.

101b FARM WOODLANDS. (4) II Wiggin
Principles of forest mensuration; increment and yield of growing timber; care and improvement of the farm wood lot; natural and artificial reproduction; protection; utilization and marketing. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite or concurrent: Forestry 101a.**

MARKETS AND RURAL FINANCE

Professors H. B. Price and McVey, Associate Professor Card, and Assistant Professors Clark and Brown

100 MARKETING. (4) I, II, IV Brown
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 prices; marketing costs; and cooperative marketing. Lectures, 4 hours. **Prerequisite: F. E. 1.**

101 COOPERATIVE MARKETING. (3) II Clark
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. 100.**

102 MARKETING TOBACCO. (2) I Clark
Principles, methods, and problems in marketing tobacco including systems of marketing, organization of auction markets, functional problems of warehouse operations, efficiency in the pricing of tobacco, monopolistic aspects of competition, and international movement of tobacco and tobacco products. **Prerequisite: M. & R. F. 100.**

103 MARKETING LIVESTOCK. (2) II Price
Analysis of local, auction, and terminal market organization including marketing agencies, market institutions, marketing services, public regulation, direct marketing, and cooperative organization. **Prerequisite: M. & R. F. 100.**

104 MARKETING DAIRY PRODUCTS. (2) III Price
Economic aspects of markets for the principal dairy products including factors affecting the efficiency of dairy marketing organizations, price policies, quotation systems, cooperation, and marketing agreements. **Prerequisite: M. & R. F. 100.**

110 AGRICULTURAL PRICES. (3) I Card
A study of factors influencing prices of farm products, price trends, cycles, supply-price relationships, the effects of inflation and deflation upon agriculture, price legislation, and the current outlook for individual farm products. **Prerequisite: F. E. 1.**

111 MARKET PRICES. (3) II
A study of price making forces in agricultural markets over relatively short periods of time; interregional and intermarket price relationships; effects of grading, price quoting, method of sale, extent of competition, speculation, and marketing agreements. **Prerequisite: F. E. 1, M. & R. F. 100.**

120 FARM FINANCE. (3) I 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: F. E. 1.**

130 AGRICULTURAL STATISTICS. (3) III Card
Methods of collection and use of agricultural statistics with special reference to crop and livestock estimates and the census; tabular and graphic presentation of data; analysis of time series; graphic correlation and sampling as applied to agricultural surveys. **Prerequisite: Math. 24 or Math. 124.**

140 AGRICULTURAL POLICY. (5) III Price
General development of the principles underlying agricultural policy, including analysis of the place of agriculture in the general economy, goals or objectives of agricultural policy; causes and development of the present agricultural problem; appraisal of current or proposed programs, and legislation for remedial action. **Prerequisite: F. E. 1.**

141a-c CURRENT PROBLEMS IN AGRICULTURAL ECONOMICS. (1 ea.) IV Price
This course emphasizes recent developments in agricultural marketing, production, and credit. Especial consideration of federal production adjustment programs, organization of agricultural credit, marketing agreements, and cooperation. **Prerequisite: F. E. 1.**

200a-c SEMINAR. (1 ea.) I, II, III Price and Staff
Analysis of current problems in the field of marketing and rural finance.

202a-c SPECIAL PROBLEMS IN MARKETING AND RURAL FINANCE. (3 ea.) I, II, III Price and 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.**

204 RESEARCH IN MARKETING. (3) II Price
Laying out the research project. Analysis of data. **Prerequisite: M. & R. F. 100.**

210 THEORY OF AGRICULTURAL PRICES. (3) II
The application of economic theory to the field of agricultural prices. Variability and flexibility in the price structure in terms of price behavior and with respect to some important factors in 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. **Prerequisite: M. & R. F. 110.**

211 RESEARCH METHODS 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. Student entering the course should have a broad preparation in general economics, agricultural economics, and statistics. **Prerequisite: M. & R. F. 130.**

240 **EFFECTS OF POLITICAL, ECONOMIC, AND CULTURAL FORCES ON RURAL LIFE IN AMERICA. (3) III** McVey
A course for graduate students 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, three hours a week.

HOME ECONOMICS

Professor Erikson; Assistant Professors Barkley, Seeds, Mumford, Wilmore, Helton, and Sumner; and Instructors Wooldridge and Gilliam.

Courses in Foods and Nutrition

2 **NUTRITION AND PUBLIC HEALTH. (3) III** Wooldridge
Nutrition as it affects social and family problems. Consideration is given to the food budget on different economic levels. Lectures, 3 hours. Not open for credit to students registered in home economics.

3 **DIETETICS FOR NURSES. (6) I, II, III** Wooldridge
Normal nutrition and the modification of the normal diet in the treatment of disease. The laboratory includes practice in food preparation and the planning and preparation of diets for various pathological conditions. Lectures, 3 hours; laboratory, 6 hours. **Prerequisite: A. & P. 6.**

5 **FOODS. (5) I, III, IV** Barkley
An introduction to the study of food. The course includes a study of methods of preparation and principles involved. Lectures and laboratory, 9 hours.

6 **FOODS. (4) II, III, IV** Barkley
This course includes the classification and composition of foods and the selection, purchase, and preparation of food in connection with meal planning and service. Lecture and laboratory, 9 hours. **Prerequisite: H. E. 5.**

11 **FOOD AND NUTRITION. (6) I, II, III** Erikson
The properties and nutritive values of food and its conversion into the matter and energy of the body. Lectures, 3 hours; laboratory, 6 hours. **Prerequisite: Chemistry 37, A. & P. 3.**

101 **PRINCIPLES OF NUTRITION. (4) III, IV** Erikson
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. Lectures, 4 hours. Not open for credit to students registered in home economics.

102 **DIETETICS. (6) I, II, III, IV** Wooldridge
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, 3 hours; laboratory, 6 hours. **Prerequisite: H. E. 6 and H. E. 11.**

103a, b PUBLIC SCHOOL NUTRITION. (2, 2) I, II, IV Wooldridge
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 programs in public schools. Lectures, 2 hours. **Prerequisite or parallel: H. E. 102.**

103c, d PUBLIC SCHOOL NUTRITION. (1, 1) I, II, IV Wooldridge
Opportunities are given to make and collect illustrative material for courses in applied nutrition. Observations of nutrition classes, school cafeterias and other nutrition projects are made. Laboratory, 2 hours. **Prerequisite or parallel: H. E. 103a or H. E. 103b.**

105a-c EXPERIMENTAL COOKERY. (4 ea.) I, II Wooldridge
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. Lecture, 1 hour; laboratory, 6 hours. **Prerequisite: Chem. 37, H. E. 5 or approval of instructor.**

106a-d FIELD WORK IN NUTRITION. (1) I, II, III, IV Wooldridge
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 and laboratory. **Prerequisite: H. E. 103a or H. E. 103b, or approval of instructor.**

107 WORKSHOP IN NUTRITION. (5) IV Erikson
This workshop gives opportunity to workers in the field of nutrition to obtain help in presenting community nutrition programs. The nutrition problem is analyzed in its relation to agricultural and socio-economic problems. The latest findings in technical information on nutrition are presented. Opportunity is given to collect visual aid material for teaching nutrition.

108a-d SEMINAR IN NUTRITION. (2 ea.) I, II Erikson
Investigations of recent research in nutrition. Lectures, 2 hours. **Prerequisite: Senior or graduate standing.**

111 ADVANCED NUTRITION. (6) II, IV 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, and biological tests for vitamins. It also includes practice in the planning, and biological tests for vitamins. It also includes practice in the planning, calculation, and preparation of therapeutic diets. Lectures, 3 hours; laboratory, 6 hours. **Prerequisite: H. E. 102**

114 FOOD PRESERVATION. (3) IV Helton
The principles of preserving food by drying, canning, pickling, salting, and quick freezing. Practice in the canning of fruits, vegetables, and meats; and the pickling of fruits and vegetables and making of jellies and preserves. **Prerequisite: Bact. 52 and H. E. 5.**

200a-d SEMINAR IN NUTRITION. (3 ea.) I Erikson

206a-d ADVANCED FIELD WORK IN NUTRITION. (1 ea.) I, II, III, IV Wooldridge
The course is a continuation of H. E. 106a-d with investigations of recent research in the field. Lecture and laboratory. **Prerequisite: H. E. 103, H. E. 106a, or approval of instructor.**

Courses in Clothing, Textiles, and Related Art

25 TEXTILES. (3) I, III, IV. (Alternate) Sumner
A study of fundamental weaves, yarns, fibers, and finishes, with reference to the selection of appropriate fabrics from both economic and artistic viewpoints. Lectures, 2 hours; laboratory, 2 hours.

26 COSTUME DESIGN. (4) I, II, III, IV (Alternate) 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. Lectures, 2 hours; laboratory, 4 hours. **Prerequisite: Art 30a.**

27 CLOTHING. (5) I, II, III, IV (Alternate) Sumner
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, 2 hours; laboratory, 6 hours. **Prerequisite: H. E. 25, and H. E. 26.**

125 ADVANCED TEXTILES. (3) I, IV (Alternate) Sumner
Individual term problems. Lectures, 3 hours. **Prerequisite: H. E. 25, Econ. 1.**

126 ADVANCED COSTUME DESIGN. (4) II, IV (Alternate) Seeds
A survey of costume throughout the ages. Planning of modern costumes. Lectures, 2 hours; laboratory, 4 hours. **Prerequisite: H. E. 26.**

127 ADVANCED CLOTHING. (4) I, II, IV Seeds and Sumner
Individuality in costume is emphasized. Costumes are designed, draped, and constructed without the use of commercial patterns. Lecture, 1 hour; laboratory, 6 hours. **Prerequisite: H. E. 27.**

129 INTERIOR DECORATION. (4) I, III, IV (Alternate) Seeds
A study of color, line, and texture as they are used to create effective interiors suited to modern living. Lectures, 2 hours; laboratory, 4 hours. **Prerequisite: H. E. 25, Art 30b.**

137 ADVANCED CLOTHING PROBLEMS. (4) II, III, IV Seeds
Designed to suit the needs of the individual student. Some suggested problems are children's clothing, tailoring, remodeling, clothing economics, and clothing for the family. Lectures, 2 hours; laboratory, 4 hours. **Prerequisite: H. E. 127.**

237a-d SEMINAR IN TEXTILES AND CLOTHING. (3 ea.) I, II, III, IV Seeds
Investigations of special textile and clothing problems. Lectures, 3 hours.

Courses in Institution Management

41 INSTITUTION MARKETING. (4) I, II, IV Helton
The economics of food and supplies for institutions. Field trips are made to wholesale houses, distributing centers, and food factories. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite: Econ. 1.**

42 INSTITUTION FOODS. (6) I, II, III, IV Helton
Large quantity food preparation and service. Emphasis is placed on standard methods and cost accounting. Lectures, 3 hours; laboratory, 6 hours. **Prerequisite: H. E. 6.**

141 INSTITUTION ORGANIZATION AND ADMINISTRATION. **(4) II, IV** Helton
Principles of institution organization, types of institution service, modern industrial tendencies, advertising, personnel, and financial control. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite: H. E. 41 and H. E. 42.**

142a-c INSTITUTION MANAGEMENT. (4 ea.) III, IV 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, 6 hours. **Prerequisite: H. E. 141.**

143 INSTITUTION EQUIPMENT. (4) IV Helton
Selection, arrangement, cost, and care of institution equipment. Problems of lighting, heating, ventilation, and refrigeration for institution food preparation and service units. Lectures, 3 hours; laboratory, 2 hours. **Prerequisite: H. E. 42 and H. E. 141.**

Courses in Child Development

51 HEALTH OF THE FAMILY. (4) I, III Erikson
Study of the factors that influence health, the agencies and forces to be utilized for health improvement, application of modern science to health, prevention of specific diseases, and in the technique of home nursing. Lecture, 4 hours.

152 CHILD CARE AND DEVELOPMENT. **(5) I, II, III, IV** Mumford
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; observations of pre-school children and participation in nursery school activities. Meetings with parents are required. Lectures, 3 hours; laboratory, 4 hours. **Prerequisite: A. & P. 3; Psych. 7.**

153 ADVANCED CHILD DEVELOPMENT. (4) I, II, III, IV Mumford
Detailed study of special features of child development during the first nine years. Observation in the nursery school and at the University school 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. Lectures, 2 hours; laboratory, 4 hours. **Prerequisite: H. E. 152.**

154 FAMILY LIVING. (4) II, IV 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, 4 hours. **Prerequisite: H. E. 61, H. E. 152, Econ. 1, Soc. 1 or R. S. 101.**

155 THE CHILD AND HIS CLOTHING. (3) IV Mumford
A study of the appreciation of the needs in children's clothing, the physiological and psychological functions, as well as the selection, cost, and care of children's clothing. Lectures and laboratory.

156 PLAY AND PLAY MATERIALS. (3) IV Mumford
A study of the appreciation of the importance of the right kind of play materials in the development of pre-school children; of materials to use, costs, labor, and time; and construction of toys. Lectures and laboratory.

Courses in Home Management

61 HOUSING. (4) I, III, IV Wilmore
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, 4 hours.

161 CONSUMER PROBLEMS. (4) II, III, IV Wilmore
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, 4 hours. **Prerequisite: Econ. 1.**

162a HOME MANAGEMENT AND FAMILY RELATIONSHIPS. (4) I, II, III, IV Wilmore
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, 4 hours. **Prerequisite: Econ. 1, H. E. 61.**

162b HOME MANAGEMENT AND FAMILY RELATIONSHIPS. (5) I, II, III, IV Wilmore
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. **Prerequisite: H. E. 162a; prerequisite or parallel: H. E. 102.**

262 ADVANCED HOME MANAGEMENT AND FAMILY RELATIONSHIPS. (3) II Wilmore
A course affording opportunity for special study of social and economic problems affecting family life. Lectures, 3 hours. **Prerequisite: H. E. 162a and 162b.**

General Courses

71 SURVEY OF HOME ECONOMICS. (1) III
Lectures on opportunities within the field of home economics. Lectures, 2 hours.

72 PROFESSIONAL PROBLEMS OF HOME ECONOMICS. (1) I Wilmore
Lectures, 2 hours.

170a-d SPECIAL PROBLEMS. (2 ea.) I, II, III, IV 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, and interior decoration.

270a-d SPECIAL PROBLEMS. (2 ea.) I, II, III, IV Staff
All fields.

COLLEGE OF ENGINEERING

CIVIL, ARCHITECTURAL, AND SANITARY ENGINEERING

Professors Terrell, Carrel, and Cheek; and Associate Professors, Chambers, Farris, and Shaver

Architectural Engineering

1 ARCHITECTURAL RENDERING. (3) III — Farris
Pictorial delineation of architectural subjects in the medium of pencil, ink, and water color. Drawing, 9 hours a week.

3 SANITATION, ACOUSTICS, FIRE PREVENTION. (4) I — Farris
Theory and practice as applied to architectural design. Lectures and recitations, 4 hours a week. **Prerequisite: Junior classification.**

4a ARCHITECTURAL DESIGN. (4) I — Farris
Principles of aesthetic design and functional planning of buildings. Drawing room, 12 hours a week. **Prerequisite: Junior classification.**

4b ARCHITECTURAL DESIGN. (4) II — Farris
Continuation of Arch. Eng. 4a. Drawing room, 12 hours a week. **Prerequisite: Arch. Eng. 4a.**

5 BUILDING EQUIPMENT. (3) III — Farris
Theory and practice of modern building equipment. Lectures and recitations, 3 hours a week. **Prerequisite: Mech. Eng. 103.**

6 INDEPENDENT PROBLEMS. (6) III — 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, 9 hours a week. **Prerequisite: Arch. Eng. 4a.**

7 BUILDING CONSTRUCTION. (1) III — Farris
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

***12 PLANE SURVEYING. (4) I, III** — Shaver
Theory and use of the transit, level, and compass in land surveys, leveling, and municipal and topographic surveys. General use and care of surveying instruments, note keeping, field problems, and computations. Class work, 3 hours a week; field work, 3 hours a week. **Prerequisite: Math. 3.**

15 GENERAL SURVEYING. (5) IV — Terrell and 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.**

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* Open to Freshmen.

16a ROUTE SURVEYING. (4) I **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, 4 hours a week. **Prerequisite: Civ. Eng. 12.**

16b ROUTE SURVEYING. (4) IV Terrell and 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) IV Terrell and Shaver
Given at the summer surveying camp located at Camp Robinson, Noble, Breathitt County, Kentucky. Stream gauging, sounding, and measuring the flow in Kentucky River, location surveys for bridges and power dams. Surveys for impounded water supplies, and 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. (3) III Terrell and Shaver
Construction of maps from field notes, reproductions and changing scale of maps, topographic symbols, contours, projected location, profile, line, and grade. Drafting room, 9 hours a week. **Prerequisite: Civ. Eng. 12.**

19 AIR NAVIGATION. (3) III **Shaver**
Principles of navigation as applied to aircraft. A study of charts, altimeters, compasses, drift sights, air speed indicators and navigation aids. Solution of problems in piloting and dead reckoning. Lectures and recitations, 3 hours a week.

23 SEMINAR. (1) III **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. (3) III **Chambers**
Principles of location, topographic conditions, economic considerations, benefits, and costs. Materials and types of roads, and general maintenance. **Lectures and recitations, 3 hours a week.**

32 STREETS AND PAVEMENTS. (3) III **Chambers**
Drainage, subgrade, foundations, surfacing materials; resistance to friction, safety appliances, construction, maintenance, and traffic census. Lectures and recitations, 3 hours a week. **Prerequisite: Civ. Eng. 31.**

37 HIGHWAY MATERIALS. (2) III Chambers
Methods of testing highway materials and the relation of such test to standard specifications. Laboratory, 4 hours a week. **Prerequisite or concurrent: Civ. Eng. 32.**

49 RAILWAY CONSTRUCTION AND MAINTENANCE. (3) II 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.**

81 TESTING MATERIALS. (2) I, II, III, IV 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, 4 hours a week. **Prerequisite or concurrent: Applied Mech. 100.**

107 SOIL MECHANICS. (5) III 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, 3 hours a week; laboratory, 4 hours a week. **Prerequisite: Applied Mech. 100.**

110a REINFORCED CONCRETE. (6) II Carrel
A study of concrete mixtures. Theory and design of beams, slabs, columns, bridges, buildings, retaining walls, dams, arches, and rigid frames. Lectures and recitations, 4 hours; drawing room, 2 hours; laboratory, 2 hours a week. **Prerequisite: Civ. Eng. 171a.**

110b REINFORCED CONCRETE. (5) III Carrel
Continuation of Civ. Eng. 110a. Lectures and recitations, 3 hours; drawing room, 4 hours a week. **Prerequisite: Civ. Eng. 110a.**

114 ADVANCED SURVEYING. (4) I Shaver
Triangulation and base line measurement, precise and trigonometric leveling. Methods of adjustment. Observation and calculations for determining time, azimuth, and latitude and longitude. Theory and practice of photogrammetry. Lectures and recitations, 3 hours; field work, 3 hours a week. **Prerequisite: Civ. Eng. 12.**

120 HYDRAULICS. (3) I, II, III, IV Cheek
Principles of hydraulics and hydrodynamic pressure. Flow of water through orifices, nozzles, pipes, and open channels, over weirs, and against stationary and moving vanes. Loss from friction and other sources. Lectures and recitations, 3 hours a week. **Prerequisite: Phys. 3a. Prerequisite or concurrent: Math. 20b.**

122 WATER POWER ENGINEERING. (3) III Carrel
Investigations, design, and operation of water power projects. Lectures and recitations, 3 hours a week. **Prerequisite: Civ. Eng. 120.**

123 HYDRAULICS LABORATORY. (2) I, II, III, IV Cheek
Experimental investigation of flow of water in pipes, channels, over weirs, measure of friction and hydrostatic pressure, and hydraulic machinery. Laboratory, 4 hours a week. **Prerequisite or concurrent: Civ. Eng. 120.**

171a, b THEORY OF STRUCTURES. (5, 3) I, II, III 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, 5 hours and 3 hours a week respectively. **Prerequisite or concurrent: Applied Mech. 100.**

173a STEEL STRUCTURES. (4) I, II, III Carrel
Design and detail of steel buildings and highway bridges. Lecture, 1 hour; drawing room, 9 hours a week. **Prerequisite: Civ. Eng. 171a.**

173b STEEL STRUCTURES. (3) II Carrel
Design and detail of steel railway bridges. Drawing room, 9 hours a week. **Prerequisite: Civ. Eng. 173a.**

174 GRAPHIC SOLUTIONS. (3) I, II, III Carrel
Principles and methods of determining stresses by graphic solution as applied to structural engineering. Elementary 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.**

Sanitary Engineering

24 SANITARY ENGINEERING FOR SANITARY INSPECTORS. (5) IV 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. (3) 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, 3 hours a week. **Prerequisite: Civ. Eng. 120.**

152 SEWERS AND SEWAGE DISPOSAL. (3) II Cheek
Sanitary and storm sewer system, theory of design, and method of disposal. Lectures and recitations, 3 hours a week. **Prerequisite: Civ. Eng. 120.**

153 DESIGN OF WATERWORKS AND SEWERS. (2) III Cheek
Design of water supply system, storm and sanitary sewers, and dispostal plants. Specifications and estimates of cost. Drawing room, 6 hours a week. **Prerequisite or concurrent: San. Eng. 151 and San. Eng. 152.**

156 WATER AND SEWER PLANT OPERATION. (2) III Cheek
Standard methods of control for producing best results in the treatment of water and sewage. Practice with miniature plants. Laboratory, 4 hours a week. **Prerequisite or concurrent: San. Eng. 151 and San. Eng. 152.**

157 SANITARY ENGINEERING FOR HEALTH OFFICERS. (2) IV 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, and lighting and ventilation. Lectures, recitations, and field trips, 8 hours a week for eight weeks.

158 SANITARY ENGINEERING DESIGN. (4) III 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, 12 hours a week. **Prerequisite or concurrent: San. Eng. 151 and San. Eng. 152.**

182 SANITATION. (3) III 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.**

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, b CONSTRUCTION. (10, 10) I, II Terrell
Advanced work in plain and reinforced concrete, theory, design, and experimental work. Class work, 5 hours; laboratory, 10 hours a week.

232a, b HIGHWAY ENGINEERING. (10, 10) I, II 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, and laboratory investigations on all kinds of surfacing materials. Structures, their design and maintenance. Class work, 5 hours; laboratory, 10 hours a week.

242a, b RAILROAD ENGINEERING. (10, 10) II, III Shaver
Advanced course in location, construction, maintenance, economical selection of lines, grade reduction, cost of operation, valuation, and structures and their maintenance. Class work, 5 hours; laboratory, 10 hours a week.

252a, b SANITARY ENGINEERING. (10, 10) II, III Cheek
Advanced course in sewer design, construction and maintenance; design, maintenance, and operation of sewage disposal plants; water supply and waterworks design; and construction and maintenance. (Courses in water analysis and bacteriology should be taken in connection with this course.) Class work, 5 hours; laboratory, 10 hours a week.

262a, b GEODETIC SURVEYING. (10, 10) III, IV 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, 5 hours; laboratory, 10 hours a week.

272a, b STRUCTURAL ENGINEERING. (10, 10) II, III Carrel
Advanced course in structural design, mill building, and railroad and highway bridges. The use of influence diagrams and detail drawings. Class-work, 5 hours; laboratory, 10 hours a week.

ELECTRICAL ENGINEERING

Professor Bureau and Associate Professors Barnett, Doll†, and Romanowitz

11 ELECTRICAL LABORATORY. (1) IV Barnett
(For Electrical and Architectural Engineers.) A study of the methods and materials used in connecting electrical apparatus and in the wiring of buildings. Adequacy, serviceability, safety, and costs are emphasized. Laboratory, 2 hours.

21 PRINCIPLES OF ELECTRICAL ENGINEERING. (6) III Staff
(For Electrical Engineers.) A first course in electrical engineering. A study of the application of the fundamental laws of electric,

† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

magnetic, and dielectic circuits. Classroom, 5 hours; laboratory, 2 hours. **Prerequisite: Phys. 3b; Math. 20a.**

101 FUNDAMENTALS OF ELECTRICAL MACHINERY. (4) I, III Bureau
(For Civil, Metallurgical, and Mining Engineers.) A study of the more common types of D.C. and A.C. electrical equipment and machinery. Classroom, 3 hours; laboratory, 3 hours. **Prerequisite: Phys. 3b.**

102 ELECTRICAL MACHINERY. (3) II Bureau
(For Metallurgical and Mining Engineers.) A study of electric power and its control as applied to mining machinery and metallurgical processes. Classroom, 3 hours. **Prerequisite: Elec. Eng. 101.**

105 DIRECT CURRENT CIRCUITS AND MACHINERY. (6) III, IV Barnett
(For Mechanical Engineers and Industrial Chemists.) Subjects studied are batteries, D.C. generators, motors, control apparatus, power transmission, etc. Classroom, 4 hours; laboratory, 6 hours. **Prerequisite: Phys. 3b.**

106 ALTERNATING CURRENT CIRCUITS AND MACHINERY. (6) I, IV Barnett
(For Mechanical Engineers and Industrial Chemists.) The fundamental theory of A.C. circuits and apparatus. It includes a study of single phase and polyphase generators, motors, transformers, converters, etc. Classroom, 4 hours; laboratory, 6 hours a week. **Prerequisite: Elec. Eng. 105; Math. 20b.**

107 ELECTRICAL CONTROL. (4) IV Bureau
A study of the field of electrical engineering which is concerned with the control of electric equipment. It involves a study of the individual types of contactors, relays, etc., as well as the various circuits with which they are tied together into units for automatic functioning. Classroom, 3 hours; laboratory, 2 hours. **Prerequisite: Elec. Eng. 116, and Elec. Eng. 106 or Elec. Eng. 101.**

108 ELECTRONIC CONTROLS. (4) II Romanowitz
A study of the application of thermionic and light sensitive tubes to industry in non-communication uses such as the controlling of manufacturing processes and motive equipment, safe-guarding life and property, etc. Classroom, 3 hours; laboratory, 3 hours. **Prerequisite: Phys. 114, Elec. Eng. 116, and Elec. Eng. 106, or Elec. Eng. 101.**

110a-c ELECTRICAL LABORATORY. (1 ea.) II, III, IV Barnett
(For Electrical Engineers.) An experimental study of electrical circuits and machinery. Laboratory, 2 hours. **Concurrent: Elec. Eng. 115, and Elec. Eng. 116.**

111a-c ADVANCED ELECTRICAL LABORATORY. (2, 1, 1) I, II, III Bureau
(For Electrical Engineers.) Advanced laboratory study of electrical machinery with special reference to A.C. apparatus. Laboratory 2 2-hours periods, 3 hours, and 3 hours respectively. **Concurrent: Elec. Eng. 117.**

114 ALTERNATING CURRENT CIRCUITS. (6) II Bureau
A mathematical study of electric circuits under the influence of steady state non-sinusoidal as well as sinusodial voltages. Vector algebra, Fourier series and symmetrical components as well as graphical methods are used. Classroom, 5 hours; Laboratory, 3 hours. **Prerequisite: Elec. Eng. 21, and Math. 105a.**

115 DIRECT CURRENT MACHINERY. (4) II Staff
(For Electrical Engineers.) A study of D.C. machinery operation and behavior. Classroom, 3 hours; calculating room and laboratory, 3 hours. **Prerequisite: Elec. Eng. 21 and Math. 20b.**

116 ALTERNATING CURRENT MACHINERY. (5) III Staff
(For Electrical Engineers.) A study of A.C. machinery operation and behavior. Classroom, 4 hours; calculating room and laboratory, 3 hours. **Prerequisite: Elec. Eng. 114 and Elec. Eng. 115.**

117 ADVANCED ALTERNATING CURRENT MACHINERY. (5) IV Staff
(For Electrical Engineers.) Advanced analytical study of A.C. machinery characteristics. Classroom, 5 hours. **Prerequisite: Elec. Eng. 116.**

120 ELECTRICAL CIRCUIT ANALYSIS. (3) III Bureau and Romanowitz
Application of higher mathematics to the solution of special types of electrical engineering problems. Lectures and recitations, 3 hours a week. **Prerequisite: E. E. 114, Math. 105a.**

123 ELECTRICAL EQUIPMENT PROBLEMS. (3) I Barnett
(For Electrical Engineers.) Individual problems related to engineering practice are assigned. The solutions involve economic as well as engineering considerations. A formal written report is required for each assignment. 9 hours. **Prerequisite: Elec. Eng. 116; and Math. 105a.**

124a ELECTRICAL DESIGN. (2) II Bureau and Barnett
D.C. machinery design. 6 hours. **Prerequisite: Elec. Eng. 115.**

124b ELECTRICAL DESIGN. (2) III Bureau and Barnett
A.C. machinery design. 6 hours. **Prerequisite: Elec. Eng. 116.**

135 ELECTRICAL NETWORKS. (4) I Bureau and Romanowitz
Fundamentals of networks theory in communication and power circuits. Lectures and recitations, 3 hours; laboratory, 3 hours. **Prerequisite: E. E. 114 and E. E. 120.**

136 ILLUMINATION ENGINEERING. (4) III Bureau
A study of light sources and photometry; fundamental principles of illumination as applied to home, public building, and commercial lighting; outdoor lighting. Classroom, 3 hours; laboratory, 2 hours. **Prerequisite: Phys. 3b and Math. 20b.**

137 ELECTRIC POWER TRANSMISSION AND DISTRIBUTION. (4) II Barnett
A study of the materials and equipment used and the problems involved in the design, building, and operation of electrical transmission lines and distribution systems. Classroom, 4 hours. **Prerequisite: E. E. 116 and E. E. 106 or E. E. 101.**

139 TELEPHONY. (4) IV Bureau and Romanowitz
The theory and practice of modern telephone operation. Lectures and recitations, 4 hours. **Prerequisite: E. E. 135.**

151a-c SEMINAR. (1 ea.) II, III, IV Staff
Weekly meeting with staff for reports and discussion on research and modern trends and practices in Electrical Engineering. 2 hours. **Prerequisite: Senior Standing.**

152a-c INDEPENDENT PROBLEMS. (2 ea.) II, III, IV Staff
(For Electrical Engineers.) A problem, approved by the Head of the Department, forms the background for study and research. Only students, the character of whose previous work justifies it, will be allowed to register for this work.

152d-f INDEPENDENT PROBLEMS. (3 ea.) II, III, IV Staff
(For Electrical Engineers.) A problem, approved by the Head of the Department, forms the background for study and research. Only students, the character of whose previous work justifies it, will be allowed to register for this work.

161 RADIO ENGINEERING. (4) III Romanowitz
Elements of electronic circuits. Electron behavior; thermionic emission; diodes, triodes, tetrodes, pentodes and their characteristics; qualitative performance of tubes in electronic circuits; and electronic instruments. Lectures and recitations, 3 hours; laboratory, 3 hours a week. **Prerequisite: E. E. 114 and E. E. 120.**

162 RADIO ENGINEERING-RECEIVERS. (4) I Romanowitz
Power supplies, amplifiers, oscillators, detectors, and complete receiver circuits. Lectures and recitations, 3 hours; and laboratory, 3 hours a week. **Prerequisite: E. E. 161.**

163 RADIO ENGINEERING-TRANSMITTERS. (4) III Romanowitz
Transmitter circuits, crystal oscillator, amplitude modulation, frequency modulation, high frequency lines, and antenna. Lectures and recitations, 4 hours a week. **Prerequisite: E. E. 162 and E. E. 135.**

164 RADIO ENGINEERING-HIGH FREQUENCY PHENOMENA. (5) II Romanowitz
Circuit elements; wide band amplifiers; pulse, trigger, and sweep circuits; square wave testing, and transient response. Lectures and recitations, 4 hours; laboratory, 3 hours a week. **Prerequisite: E. E. 163.**

165 RADIO ENGINEERING—FUNDAMENTALS OF ELECTRIC WAVES. (3) II Romanowitz
Equations of plane waves; application of vector analysis in electric and magnetic field theory; introduction to Maxwell's equations. Lectures and recitations, 3 hours a week. **Prerequisite: E. E. 120 and E. E. 114.**

226 RADIO ENGINEERING—ULTRA HIGH FREQUENCY. (4) Romanowitz
Negative and positive grid oscillators; the magnetron, the klystron ultra high frequency transmission lines and circuit elements. Lectures and recitations, 3 hours; laboratory, 3 hours a week. **Prerequisite: E. E. 164 or equivalent.**

227 RADIO ENGINEERING—RADIATION AND PROPAGATION. (3) **Romanowitz**
Basic laws; plane waves, polarization; short antenna fields and radiated energy; finite length antenna; propagated waves. Lectures and recitations, 3 hours a week. **Prerequisite: E. E. 165 or equivalent.**

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 candi-

date must hold a bachelor's degree in Electrical Engineering or its equivalent.

205 ADVANCED INDUCTION MOTOR THEORY. (6) Bureau
A study of the theory underlying the characteristics of single phase and polyphase induction motors. Recitation, 4 hours; laboratory, 6 hours a week.

206 ELECTRIC POWER TRANSMISSION. (6) Barnett
The theory underlying the calculation and operation of long distance transmission circuits. Special attention to relay control. Recitation, 4 hours; laboratory, 6 hours a week.

207 ELECTRIC POWER DISTRIBUTION. (6) Barnett
A study of the theory underlying the operation and control of various types of distribution circuits. Recitations, 4 hours; laboratory, 6 hours a week.

208 ELECTRIC TRACTION. (6) Bureau
An advanced study of electric power application to railways, cranes, elevators, etc. Recitations, 4 hours; drawing room, 6 hours a week.

209 TELEPHONE ENGINEERING. (4) Romanowitz
An advanced study of the theory and operation of modern telephone exchanges. Layouts and designs are made to meet different assumed conditions. Recitations, 4 hours a week.

210 SYMMETRICAL COMPONENTS. (6) Bureau
A study of the symmetrical component method of analyzing unbalanced conditions on transmission lines and its use in solving relay applications. Recitations, 4 hours; laboratory and design, 6 hours a week.

ENGINEERING—GENERAL

Dean Graham; Professors Bureau, Cheek, Crouse, Hawkins, Jett, Meyer, and Nollau; and Associate Professors Barnett, Beebe, Chambers, Farris, Horine, May†, Shaver, and Walton

Applied Mechanics

2 MECHANISMS. (3) IV Jett
Movement of machine parts such as crank and link motions, cams, gears, straight line and quick return motions. Lectures and recitations, 3 hours a week. **Prerequisite: Phys. 3a, Math. 17, Math. 3; and Eng. Draw. 18.**

3 STATICS. (5) I, II, III, IV Hawkins
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, 5 hours a week. **Prerequisite: Phys. 3a, Math. 20a. Prerequisite or concurrent: Math. 20b.**

4 DYNAMICS. (3) I, II, III, IV Hawkins
Motion of a particle, dynamics of moving bodies, impulse and momentum, work and energy. Lectures and recitation, 3 hours a week. **Prerequisite or concurrent: Math. 20b, Appl. Mech. 3.**

† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

5 ELEMENTS OF THE SLIDE RULE. (1) II Staff

Lectures 2 hours per week relative to the theory of the slide rule and exercises in the computation of numerical problems by means of the slide rule. **Prerequisite: Math. 17 and Math. 3.**

100 STRENGTH OF MATERIALS. (5) I, II, III, IV Hawkins

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, 5 hours a week. **Prerequisite: Appl. Mech. 3. Prerequisite or concurrent: Math. 20b.**

106 ADVANCED STRENGTH OF MATERIALS. (5) III, IV Hawkins

Unsymmetrical bending of beams, bending and deflection of thin plates, stress of analysis of thick walled cylinders, and rotating discs. Theory of elastic energy and curved beams, stress concentration, and fatigue. Lectures and recitations, 5 hours a week. **Prerequisite: Math. 20b and Appl. Mech. 100. Prerequisite or concurrent: Math. 105a.**

107 MECHANICAL VIBRATIONS. (5) I, III Hawkins

Vibrations of systems of one and several degrees of freedom, balancing of rotating machines, critical speeds, and torsional and lateral vibrations of shafts. Lectures and recitations, 5 hours a week. **Prerequisite: Math. 105a, Appl. Mech. 4, and App. Mech. 100.**

Engineering Administration

102 ENGINEERING ADMINISTRATION. (4) I, II, IV Farris

A study of the methods, procedures, and principles involved in engineering analyses, contracts, specifications, estimates and valuations, and administration of engineering projects. Lectures and recitations, 4 hours a week. **Prerequisite: Com. 1 or Pol. Sci. 15.**

Engineering Drawing

***1a ELEMENTARY ENGINEERING DRAWING. (3) I, II, III, IV** Nollau and Horine

Freehand lettering, care of and exercises in the use of instruments, principles of orthographic and axonometric projection, technical sketching, tracing, methods of reproduction of drawings, and chart and diagram drawings. Working drawings both detail and assembly. Three 3-hour periods a week.

***1b DESCRIPTIVE GEOMETRY. (3) I, II, III, IV** Nollau and Horine

A study of the essential principles of descriptive geometry and the solution of practical problems pertaining to the various branches of engineering. Three 3-hour periods a week. **Prerequisite: Eng. Draw. 1a.**

***2 MECHANICAL DRAWING. (2) II** Nollau and Horine

(For students in Industrial Chemistry.) Freehand lettering, exercises in the use of instruments, orthographic and axonometric projection, graphs, tracing and reproduction of drawings as well as drafting as applied to industrial engineering. Three 2-hour periods a week.

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* Open to Freshmen.

12 GRAPHICAL COMPUTATIONS. (3) IV Jett
Graphic solution of problems in mechanism, construction, and use of alignment charts and practice in the use of planimeter and mechanical integrator. Drafting room, 9 hours a week. **Prerequisite or concurrent: Phys. 3a, Applied Mech. 2. Prerequiste: Eng. Draw. 18.**

***17a MECHANICAL DRAWING. (2) I, II, IV** Nollau
Special course for non-engineering students, comprising freehand lettering, use and care of drawing instruments, elementary principles of orthographic and axonometric projection and tracing and reproduction of drawing. Three 2-hour periods a week.

***17b MECHANICAL DRAWING. (2) I, II, IV** Nollau
Continuation of Drawing 17a. Special problems to meet the need of individual students. Three 2-hour periods a week.

18 ADVANCED ENGINEERING DRAWING. (3) I, III Nollau
Comprises working drawings of parts of machines, both detail and assembly; technical sketching of simple machines and working drawings from technical sketches; and tracing in pencil and ink. 9 hours a week. **Prerequisite: Eng. Draw. 1b.**

115 PHOTOGRAPHY. (4) II, III Nollau
(Required for Metallurgical Engineers, elective for other senior 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. **Prerequisite: Chem. 1a, Phys. 3a.**

Student Assemblies

***1a, b INTRODUCTION TO ENGINEERING.**
(1, 0) I, IV 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.**
(1) II Beebe, Barnett, and 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-c CLASS SOCIETY. (Sophomore.)
(0 ea.) I, III, IV Bureau, Chambers, Crouse, and 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. 1 hour a week.

4a-c CLASS SOCIETY. (Junior.)
(0 ea.) II, III, IV Bureau, Chambers, Crouse, and Jett
1 hour a week. Content same as 3a.

5a-c CLASS SOCIETY. (Senior.)
(0 ea.) I, II, III Bureau, Chambers, Crouse, and Jett
1 hour a week. Content same as 3a.

* Open to Freshmen.

MECHANICAL ENGINEERING

Professors West†, Meyer, and Jett, and Associate Professors May† and Walton

15a-c MANUFACTURING PROCESSES. (3 ea.) I, II, III, IV Meyer
Covering modern precision machine shop methods, work layout, machine tool operation, inspection, measurement of finished work, machine assembly, as well as the technique of pattern making, welding, and foundry practice. 2 4-hour periods a week.

16 AIRPLANE SHOP PRACTICE. (3) III
Covering modern aircraft shop methods, work layout, measurement inspection of finished work, and the working and assembling of the various materials used in aircraft construction, including welding, riveting, and other methods of joining and fastening such materials. Laboratory, 2 4-hour periods a week. **Prerequisite: Eng. Draw. 12.**

100a MACHINE DESIGN. (4) I, IV Jett and Walton
(For Mechanical Engineers.) Design of machine and structural elements. Lecture, 2 hours; drawing room, 6 hours a week. **Prerequisite: Eng. Draw. 12, Mech. Eng. 15a, b. Prerequisite or concurrent Applied Mech. 100.**

100b MACHINE DESIGN. (4) I, II Jett and Walton
(For Mechanical Engineers.) Continuation of Mech. Eng. 100a. Individual work on the design and construction of complete machines or structures. Lecture, 2 hours; drawing room, 6 hours a week.

101 MECHANICAL ENGINEERING DESIGN. (4) I, II West
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. Lecture, 1 hour. Drawing room, 9 hours a week. **Prerequisite; Appl. Mech. 100; Mech. Eng. 104c; Mech. Eng. 105, Mech. Eng. 107, and Mech. Eng. 114.**

103 ELEMENTS OF HEAT-POWER ENGINEERING. (3) I Walton
(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.**

104a ENGINEERING THERMODYNAMICS. (4) I, II Walton
Covering the fundamental principles of thermodynamics. Carnot cycle, entropy and enthralpy. A study of the thermodynamic equations for gases and vapors, steam power plant cycles, reciprocating engines and turbines, and reheating and regenerative cycles. Recitations, 4 hours a week. **Prerequisite: Phys. 3a. Prerequisite or concurrent: Math. 20b.**

104b ENGINEERING THERMODYNAMICS. (4) I, III Walton
Continuation of Mech. Eng. 104a. Lectures and recitations, 4 hours a week.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

104c ENGINEERING THERMODYNAMICS—HEAT POWER. (4) IV Walton
Continuation of Mechanical Engineering 104b, including advanced thermodynamics and cycles for steam power plants, internal combustion engines, heating, ventilating, refrigeration and air conditioning equipment, as well as a study of the various kinds, types, characteristics, and efficiencies of commercial apparatus applicable to these branches of engineering, together with the development of the proper techniques for the selection, assembling, and connecting of such apparatus in the design of plants of these characters. Recitations, 4 hours a week. **Prerequisite. Mech. Eng. 104b.**

105 STEAM POWER PLANT EQUIPMENT. (4) I, IV West
Study of the characteristics and use of steam power plant equipment, including steam generators, fuel handling and burning equipment, coal and ash handling, draft producers, dust collectors, smoke abatement, prime movers, generators, air preheaters, economizers, feed water heating and treatment, pumps, continuous blow down, and combustion control. Recitations, 4 hours a week. **Prerequisite: Mech. Eng. 104c.**

107 FLUID MECHANICS. (4) IV West and Walton
Covering the statics, kinematics, dynamics, and thermodynamics of fluids, both liquids and gases, including the derivation and use of all fundamental formula for flow through orifices, nozzles, pipes, fittings, etc., together with the study of dams, weirs, metering devices, turbines, pumps, the aerodynamics of bodies moving through air and the hydrodynamics of bodies moving through water. Recitations, 4 hours per week. **Prerequisite: Mech. Eng. 104a.**

108 INTERNAL COMBUSTION ENGINES. (5) II Meyer
A study of internal combustion engine cycles and the characteristics and performance of actual engines, valve gears, and materials of construction. Recitations, 5 hours a week. **Prerequisite: Mech. Eng. 104c.**

109 REFRIGERATION. (5) I, II West
A study of the thermodynamics of refrigeration cycles, and the characteristics of refrigeration equipment. Recitations, 5 hours a week. **Prerequisite: Mech. Eng. 104c.**

110 HEATING AND VENTILATING DESIGN. (2) II Walton
Brief course for Architectural Engineers, covering the selection and layout of heating and ventilating equipment. Drawing room, 6 hours a week. **Prerequisite or concurrent: Mech. Eng. 116.**

111 ENGINEERING REPORTS. (3) I, IV 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, and contract forms and specifications. Recitations, 3 hours a week. **Prerequisite: Mech. Eng. 104, and Engl. 1b.**

112a, b MECHANICAL LABORATORY. (2, 2) I, II, III, IV 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. 104a.**

113a, b MECHANICAL LABORATORY. (2, 2) I, II, IV West

Performance tests on heating, ventilating, and power plant equipment. Lecture, 1 hour; laboratory, 3 hours a week. **Prerequisite or Concurrent: Mech. Eng. 105, and Mech. Eng. 107.**

114 HEATING, VENTILATING, REFRIGERATION, AND AIR CONDITIONING. (5) I West and Walton

Including calculations for heating and cooling loads together with a study of the characteristics of various types of heating, ventilating, air conditioning, and refrigerating systems; including air cleaning, humidifying, dehumidifying and purifying apparatus as well as duct systems, piping systems, control systems, sound controls, unit heaters, ventilators, and air conditioners. Commercial refrigeration, cold storage, food bank lockers, quick freezing of foods, dehydration of foods and products, and air conditioning for industrial processes will be covered. Recitations, 5 hours a week. **Prerequisite: Mech. Eng. 104c.**

116 ELEMENTARY HEATING, VENTILATING, AND AIR CONDITIONING. (4) II Walton

A course involving heating and ventilating calculations with descriptions of various types of equipment. Latter part of quarter devoted to a discussion of the basic principles of air conditioning. Recitations, 4 hours a week. **Prerequisite: Phys. 3a, Junior Classification.**

120 MECHANICAL ENGINEERING PROBLEMS. (4) II, III West and others

These comprise 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. Lecture, 1 hour; Laboratory, 9 hours a week. **Prerequisite: Mech. Eng. 105, Mech. Eng. 107, Mech. Eng. 114, and Applied Mech. 107.**

121 MACHINE DESIGN. (3) I, IV Jett

(For Electrical Engineers.) Similar to Mech. Eng. 100a with special attention to the mechanical features of electrical machines. Lecture, 1 hour; drafting, 8 hours a week. **Prerequisite: Eng. Draw. 18; Mech. Eng. 15a. Prerequisite or concurrent: Applied Mech. 100.**

122a-c SEMINAR. (1 ea.) I, II, III, IV West and others

Studies of current engineering literature and problems and 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.**

123 AIRPLANE INSTRUMENTS AND CONTROLS. (4) III

A study of hydraulic, pneumatic, and electric control systems for airplanes, including stabilizers, instruments, piping and wiring systems; also speedometers, altimeters, bank indicators, bombsights, range finders, and automatic sight and fire controls. Recitations, 4 hours a week. **Prerequisite: Mech. Eng. 104b.**

124 AIRPLANE DESIGN. (4) I
Design of airplane structures, including power plants, auxiliaries and controls, in accordance with the U. S. Civil Aeronautics Board's requirements and the National Advisory Committee for Aeronautics' recommendations. Lectures, 2 hours; laboratory, 6 hours a week. **Prerequisite: A. M. 106, A. M. 107, Mech. Eng. 108, and Mech. Eng. 123.**

125a, b AERONAUTICAL LABORATORY. (2, 2) I, II Meyer
Performance tests on airplane engine propellers and auxiliary engine equipment, including the assembly, disassembly, inspection micrometer measurements, and micro-weighing of various parts for the determination of wear, fit, and film deposit, also the testing of lubricants and oil consumption. Lecture, 1 hour; laboratory, 3 hours a week. **Prerequisite: Mech. Eng. 16, Mech. Eng. 108, and Mech. Eng. 123.**

126 AERODYNAMICS OF THE AIRPLANE. (4) III West and Walton
Study of the aerodynamics of airplane propellers, lifting vanes, drag, dynamic similarity, stability, wind tunnel practices, and the dynamic and thermodynamic problems of the airplane. Recitations, 4 hours a week. **Prerequisite: Mech. Eng. 107 and A. M. 4.**

127 AIRPLANE PROBLEMS. (4) IV West
Including the calculations for and design of airplane propellers, power plants, wings, streamlined parts, and control systems for airplanes. Lecture, 2 hours; drawing room, 6 hours a week. **Prerequisite: Mech. Eng. 107, Mech. Eng. 108, Mech. Eng. 123, A. M. 106, and A. M. 107.**

128 AIRPLANE STRUCTURES. (5) I
Covering the structural analysis of airplanes, with special reference to the stability of various shapes and forms with stresses developed under flight conditions. Lectures and recitations, 5 hours a week. **Prerequisite: A. M. 106 and A. M. 107.**

Prerequisite for graduate work: Students desiring to take any of the following courses should have a thorough working knowledge of Chemistry, Physics, and Mathematics. For major work, a candidate must hold a bachelor's degree in Mechanical Engineering or its equivalent.

201a, b AUTOMOTIVE ENGINEERING. (9, 9) Meyer
An advanced course in the essentials of motor vehicle design, construction, and operation. Drafting room, laboratory, and lectures by appointment.

202a, b POWER PLANT ENGINEERING. (9, 9) West
Advanced work in the design, selection, layout, and operation of heat-power plant equipment.

203a, b HEATING, VENTILATING, AND AIR CONDITIONING. (9, 9) West and others
Advanced work in the design, selection, layout, and operation of heating, ventilating, and air conditioning equipment.

204a ADVANCED MACHINE DESIGN. (9) Meyer and 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.

METALLURGICAL AND MINING ENGINEERING

Professor Crouse and Associate Professor Beebe

Metallurgical Engineering

26 ENGINEERING METALLURGY. (3) I, II, III 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, 3 hours a week. **Prerequisite: Chem. 1b or 2b.**

27 GENERAL METALLURGY. (3) I, II, III, IV 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, 3 hours a week. **Prerequisite: Chem. 1b or Chem. 2b.**

29 METALLURGY OF THE FERROUS METALS. (4) I, III 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, 4 hours a week. **Prerequisite: Met. 27.**

37 ADAPTIVE METALLURGY FOR ENGINEERS. (5) II Beebe
This course is designed to cover the fundamental principles of mechanical and physical metallurgy and heat treatment. It includes a study of the correlation of metallic structures to properties, machinability and applications, of the engineering metals, primary from the standpoint of the needs of mechanical engineers. Lectures and recitations and classroom demonstrations, 5 hours a week. **Prerequisite: Chem. 1b or Chem. 2b; and Physics 3a.**

60 METALLURGICAL LABORATORY AND SHOP PRACTICE. (5) IV Staff
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, 12 hours a week. **Prerequisite: 6 quarters in Metallurgical Engineering.**

120 ASSAYING. (2) 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, 6 hours a week. **Prerequisite: Chem. 21b and Met. 27.**

121 FUEL AND METALLURGICAL LABORATORY. (2) III 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, 6 hours a week. **Prerequisite: Chem. 21b and Met. 27.**

128 METALLURGY OF NON-FERROUS METALS. (4) II 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, 4 hours a week. **Prerequisite: Met. 27.**

132a, b METALLURGICAL CALCULATIONS. (4, 4) II, III Crouse
This course comprises a study of the calculations involved in the practical application of the principles to general metallurgy, as well as those used in both ferrous and non-ferrous metallurgical practice. Recitations and problems, 4 hours a week. **Prerequisite: Chem. 21b; Met. 29, and Met. 128.**

140 THE SCIENCE OF METALS. (4) I, III Crouse
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, 4 hours a week. **Prerequisite: Phys. 3c, Chem. 21b, and Met. 29.**

141 ALLOY STEELS. (3) III
The thermal behavior of low and high alloy steels is discussed on the basis of each particular phase diagram. The sub-critical transformation of austenite in alloy steels and the physical properties of the products of this type of decomposition of austenite are reviewed. Martensite and intermediate transformations are treated. The heat treatment of complex alloy steels such as the high speed and high alloy die steels receive particular emphasis. Lectures and recitations, 3 hours a week. **Prerequisite: Met. 37 or Met. 140.**

142a, b HEAT TREATMENT. (3, 3) I, II Crouse
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, 3 hours a week. **Prerequisite: Met. 60 and Met. 140.**

143a, b PHYSICS OF METALS. (4, 4) I, II
The study of the laws governing the formation of alloys. Subjects discussed are atomic structures of metals and alloys, atomic forces, super-lattics, 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, and 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, 3 hours; laboratory, 3 hours a week. **Prerequisite: Phys. 119, Phys. 123b; and Met. 140.**

144 NON-FERROUS METALLOGRAPHY. (3) III
The physical properties of the non-ferrous metals and the interpretation of the properties obtained on the basis of the phase diagram is the prime objective of this course. The light alloys and the age hardening theory are emphasized. Bearing metals and the bronzes receive special attention. Lectures and recitations, 2 hours; laboratory, 3 hours a week. **Prerequisite: Met. 140.**

150 INDUSTRIAL MINERAL PREPARATON AND USES. (3) III 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) 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. **Prerequisite: Phys. 123b, Chem. 140c.**

166a, b EXTRACTIVE METALLURGY. (5, 4) I, II
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 reading planned to keep the student informed of current technological development. Recitations and lectures, 5 hours and 4 hours a week respectively, with reference reading and problems. **Prerequisite: Chem. 1b, Phys. 3b, Math. 20a, Met. 27.**

167 EXTRACTIVE METALLURGY PLANT PRACTICE. (2) III
This is a course in the operation of plants studied in Met. 166a, and 166b. Laboratory, 6 hours a week. **Prerequisite: Met. 166b.**

175a-c SEMINAR. (1 ea.) I, II, III Staff
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: 9 quarters in Metallurgical Engineering.**

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. (9) Crouse
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, 3 hours; laboratory, 12 hours a week.

207 TECHNOLOGY OF ALLOYS. (9) Crouse
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, 3 hours; laboratory, 12 hours a week.

208 ADVANCED METALLOGRAPHY. (9) Crouse
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, 3 hours; laboratory, 12 hours a week.

209 ADVANCED ORE DRESSING. (9)
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, 3 hours; laboratory, 12 hours a week.

210 TECHNOLOGY OF LOW TEMPERATURE CARBONIZATION. (9) 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, 3 hours; laboratory, 12 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. (3) 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, 3 hours a week. **Prerequisite: A sufficient background of Physics, Chemistry, and Geology.**

212 OIL SHALE TECHNOLOGY. (9) 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, 3 hours; laboratory, 12 hours a week. **Prerequisite: Sufficient background in Chemistry and Physics.**

213 X-RAY METALLOGRAPHY. (6)
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 Comen's analytical method of calculating lattice parameters. Radiographs will be made and interpreted. Lectures and recitations, 3 hours; laboratory, 6 hours a week. **Prerequisite: Mat. 143b.**

214 THE METALLIC STATE. (3)
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, 3 hours a week. **Prerequisite: Met. 143b.**

230a-d RESEARCH IN X-RAY METALLOGRAPHY. (9 ea.)
Research problems in X-ray metallography either diffraction or radiographic. Lectures and recitations, 3 hours; laboratory, 12 hours a week. **Prerequisite or concurrent: Met. 213.**

Mining Engineering

126a DEVELOPMENT OF MINES. (5, 3) III, IV (2d half)
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, 5 hours and 3 hours a week respectively; reference reading and assigned reports. **Prerequisite: Chem. 2b, Phys. 3b, Geol. 12b.**

127a, b MINING UNDERGROUND. (4, 3) II, III
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, 4 hours and 3 hours a week respectively, with assigned reference reading. **Prerequisite: Min. 126a.**

128 MINING AT THE SURFACE. (3) II
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, b MINE VENTILATION AND DRAINAGE. (4, 3) I, II
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, 4 hours and 3 hours a week respectively. **Prerequisite: Min. 126a.**

130 MINE ADMINISTRATION. (5) III
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, 5 hours a week. **Prerequisite: Min. 126a.**

160 MINE SURVEYING AND FIELD PRACTICE IN MINING ENGINEERING. (10) IV (2nd half)
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 6 weeks. **Prerequisite: 6 quarters in Mining Engineering.**

175a-c SEMINAR. (1 ea.) I, II, III Staff
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: 9 quarters in Mining Engineering.**

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. (5)
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, 5 hours a week.

206 EXPLOSIVE ENGINEERING. (3)

This course comprises a study of the principles involved in the use of explosives in large scale mining and quarrying practice. Lectures and recitations, 3 hours a week.

207 ADVANCED PROSPECTING. (3)

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, 3 hours a week.

208 COAL DUST INVESTIGATION. (6)

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, 18 hours a week.

209a, b ADVANCED MINE ENGINEERING. (5, 5)

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, 6 hours a week.

COLLEGE OF LAW

Dean Evans, and Professors Eblen†, Moreland, Murray, Pittman†, Randall, and Roberts†

First Year Subjects

101a-c CONTRACTS I-II-III (3 each) I, II — Murray

Williston's Cases (4th ed.).

The formation of contracts, offer and acceptance, consideration, contracts under seal. The Statute of Frauds. Parties affected by contracts, contracts for the benefit of third persons, assignments, joint and several contracts. The performance of contracts, express and implied conditions, impossibility of performance, and illegal contracts.

102a-c TORTS I-II-III (3 ea.) I, II, III — Evans

Thurston and Seavey's Cases.

Breach of legal duty, causation, duty of care, contributory negligence, care in the use or occupation of land, extra-hazardous occupation, joint torts, deceit, defamation, slander, libel, privilege, malicious prosecution, interference with social and business relations, inducing breaches of duty, unfair competition, strikes, boycotts, and business combinations.

103 PROPERTY I. (3) I — Randall

Roberts' Cases.

Personal property: possession, the nature and rights of possession, bona fide purchase, purchase by judicial sale, gifts, loss by surrender of possession, assignability, conversion, and acts constituting conversion.

104 PROPERTY II. (3) II — Randall

Warren's Cases.

Introduction to the law of conveyancing, tenure, estates and tenancies, joint tenants, reversion and remainder, seisin and disseisin, rents, and rights incident to the ownership of land or estates therein. The land itself—air, water, fixtures, waste, profits, easements, licenses, etc.

105 AGENCY. (3) III — Murray

Mechem's Cases (3rd ed.).

Nature of relation, appointment, liabilities of principal for agent's torts, contracts, crimes, liabilities of agents, parties to writings, undisclosed principal doctrines, delegation of agency, termination, and ratification.

106a, b PLEADING I-II (3, 3) I, II — Randall

Keigwin's Cases on Common Law Pleading.

Sunderland's Cases on Code Pleading.

Pleading I: Common-law forms of action—a study of common-law pleading sufficient to aid the student in an understanding of modern code pleading.

Pleading II: Pleading under the code system with some emphasis on that of Kentucky. The topics include parties, causes of action and joinder thereof, and the different pleadings considered separately.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

107a CRIMINAL LAW. (3) I Moreland
Hall and Glueck's Cases.
Jurisdiction; the criminal act, complete and incomplete; criminal intent, actual and constructive; duress and mistake of fact, of law; justification; parties in crime; crimes against the person; and crimes against property.

107b CRIMINAL PROCEDURE. (3) III Moreland
Keedy's Cases.
Police officers, arrest, investigation of crime, the magistrate, indictment and information, jurisdiction of the trial court, venue, interstate rendition, arraignment, the petit jury, the prosecuting attorney, counsel for defense, the verdict, and methods of review.

144 LEGAL BIBLIOGRAPHY. (1) III Randall
Eldean, Finding the Law.
Practice in the library in the use of statutes, reports, digests, encyclopedias, annotated cases, citation books, reference tables, indices, and textbooks.

148 DOMESTIC RELATIONS. (3) I Moreland
Jacobs' Cases.
Contracts to marry; breach of promise; marriage: formal requisites, capacity, etc.; property rights of husband and wife; status of married women at common law and under statute; transactions between husband and wife; torts affecting the marital relations, divorce and separation; parent and child; custody, services, and earnings; torts to children; torts by children; adoption, bastardly; infancy—voidable acts; disaffirmance, ratification; contracts for necessaries; liability for torts; insanity; drunkenness; and aliens.

120 TRIAL PROCEDURE. (6) I Randall
Sunderland's Cases.
Procedure in the trial courts and also in the appellate courts. Discovery before trial, pre-trial hearings, as well as all the steps in the trial of cases and selection of juries. Students draw the usual instruments in the trial court and a complete set of pleadings and papers in the Court of Appeals of Kentucky.

121a, b EQUITY I-II. (4, 4) I, II Moreland
Chafee and Simpson's Cases.
Basis of equity jurisdiction, specific performance of contracts, reformation, reexecution, rescission and cancellation, injunctions in relation to torts, bills of peace, quia timet, interpleaders, and position of equity in the legal system.

122 PROPERTY III. (3) III Murray
Martin's Cases.
Titles and conveyancing. Adverse possession; prescription; accretion; dedication; mode of conveyance at common law, under the Statute of Uses, and under modern statutes; execution of easements by implication; estates; covenants for title; estoppel by deed; and priorities.

123 NEGOTIABLE INSTRUMENTS. (4) I Murray
Britton's Cases on Bills and Notes.
A general study of the law of bills and notes following the Uniform Negotiable Instrument Law, including: operative facts of negotiability; transfer of negotiable instruments, including types and effects of indorsements; the rights of a holder in due course; defenses that may be asserted against a payee, holder, and holder in due course; the effect of illegality, mistake, lack of consideration, forgery, and fraud;

the liability of primary and secondary parties and the requirement of presentment, notice, and protest; the liability of accommodation parties; problems of collection; transfers after maturity; implied warrants of a transferor; and the method and results of acceptance.

124a, b **EVIDENCE I-II.** (3, 3) I, II — Randall
McCormick's Cases.
Rules of admissibility, real evidence, circumstantial evidence, testimonial evidence, rule for preference of documentary origin, rules for preference between different kinds of witnesses, the hearsay rule and its exceptions, rules of conditional and absolute conclusion, procedure of admissibility, law and fact, judge and jury, burden of proof and presumptions, judicial notice, and parol evidence rule.

125 **PRACTICE COURT.** (2) II — 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 Kentucky code, but so treated as to give a fair understanding of like work in other states.

141 **PARTNERSHIP.** (2, 5) III — Murray
Crane and Magruder's Cases.
Distinction between partnership and other forms of business association, partnership by contract and by estoppel, competency of partners to become partners, nature and character of partnership, characteristics of partnership ownership of property, transfer of property, nature of the partnership obligation, powers of partners, rights and remedies of creditors, and termination of partnership.

142 **INDUSTRIAL RELATIONS.** (2, 5) IV — Moreland
Albertsworth's Cases.
Relations between employer and employee, the common law background; Employers' Liability Acts and Safety Regulations; and Workmen's Compensation. During the latter half of the course a special study is made of the Kentucky Workmen's Compensation Act and Kentucky cases relating thereto.

145 **INSURANCE.** (3) III — Murray
Goble's Cases.
Nature of contract, insurable interest, making the contract, concealment, representations, warranties, implied conditions of forfeiture, waiver and estoppel, rights under the contract, and construction of the policy.

147 **RESTITUTION.** (3) II — Murray
Woodruff's Cases.
Restitution at law for mistake, duress and undue influence, illegality, impossibility, benefits received under contracts within and without the Statute of Frauds, and benefits received without contracts.

149 **MUNICIPAL CORPORATIONS.** (2, 5) IV — Randall
Tooke and McIntire's Cases.
Nature of municipal corporations; distinction between municipal corporations and other corporations; functions; creation; alteration; dissolution; legislative control; organization; powers of, such as police power to tax; power to contract and acquire, manage and dispose of property; liability on contracts and for torts; and remedies.

150 PUBLIC UTILITIES. (4) II Moreland

Robinson's Cases (2nd ed.).
Consideration will be given to the numerous classes of business and undertakings which have a double aspect of being privately owned and conducted for private profit and subject to abnormal duties of public service—common carriers, hotels, telephone, telegraph, express, gas, electric light, irrigation, and pipe line businesses; undiscriminatory service, and provision of reasonable rates.

152 OIL AND GAS. (2, 5) IV Moreland

Kulp's Cases (2nd ed.).
General considerations as to oil and gas leases—infants, married women, life tenants, and others as parties. Special study of the granting clause—lessee's interest, lessee's right to ejectment; the habendum clause—duration of lease; the operating and related clauses; termination; right to specific performance; construction of oil and gas leases; and doctrine of development.

153 TAXATION. (5) III Eblen

Magill & Maguire's Cases.
Due process limitations upon jurisdiction to tax; multiple taxation of intangibles; property taxes; inheritance and estate taxes; gifts to take effect in possession or enjoyment at death; gifts in contemplation of death; taxation of powers of appointment; gift taxes; individual and corporate income taxes; items included in gross income; accounting basis; capital gains and losses; permissible deductions; and excise taxes.

154 DAMAGES. (2, 5) IV Randall

McCormick's Cases.
Nature of damages, avoidable consequences, counsel fees, certainty, compensation, damages for non-pecuniary injuries, pain, inconvenience, mental suffering, aggravation value, interest, special rules in certain acts, damages for death, and eminent domain.

160a, b PRIVATE CORPORATIONS I-II. (4, 2) I, II Evans

Ballentine & Lattin's Cases.
Characteristic features of a corporation, formation, powers and liabilities, rights of stockholders, directors, legislative control, dissolution, and creditors of the corporation.

161a, b CONSTITUTIONAL LAW I-II. (2, 4) I, II Evans

Dodd's Cases (2nd ed.).
Making and changing constitutions, function of judiciary in enforcing constitutions, separation and delegation of powers of government, personal liberty, interstate privileges and immunities of states, the 14th Amendment, due process and equal protection of the laws, eminent domain, protection to persons accused of crime, powers of federal government, money, banking, postal, military powers, citizenship and suffrage, foreign relations, territories, dependencies, new states, and inter-governmental relations.

162 PROPERTY IV (FUTURE INTERESTS). (4) III Evans

Leach's Cases.
Rights of entry for condition broken, escheat and possibilities of reverter, reversions, vested remainders and executory interests, contingent remainders, limitations to classes, freehold interest subject to a term, rule against perpetuities, and illegal restraints and conditions.

163 WILLS AND THE ADMINISTRATION OF ESTATES. (4) I Evans
Mechem & Atkinson's Cases.
Descent and distribution, the making and revocation of wills, including testamentary capacity, execution, attestation, integration, revocation by mistake and dependent relative revocation; probate and administration, including will contests, jurisdiction of probate courts, contracts of personal representatives, and claims against the estate and settlement of estates.

164 CONFLICT OF LAWS. (5) III Moreland
Cheatham, Dowling & Goodrich's Cases.
Nature of the subject, penal laws, procedure, judgments, domicile, capacity, form, particular subjects, litigation, family law, inheritance, foreign administrator.

165a, b TRUSTS I-II. (3, 3) I, II Evans
Scott's Cases (3rd ed.).
Uses and Statute of Uses; trusts distinguished from other relationships; their creation; their elements; the transfer of the beneficiary's interest; the administration, termination, and modification of trusts; charitable trusts; liability to third persons and of third persons; and resulting and constructive trusts.

166 SALES. (5) III Murray
Woodward's Cases (3rd ed.).
Subject matter of the contract; transfer of property and title; destruction of goods and risk of loss; obligation of seller and buyer; rights of unpaid seller against the goods; remedies of the seller on the contract; and remedies of the buyer on the contract.

167 ADMINISTRATIVE LAW. (4) III Pittman
Stason's Cases.
The creation, function and powers of administrative tribunals; procedure before such tribunals, the scope and manner of judicial review of their orders.

169 LAW OF THE AIR. (3) III Randall
Selected cases and readings.
The course will deal principally with aircraft law as follows: proprietary rights in air space at common law, federal and state statutes, torts liability, criminal responsibility, aircraft as common carriers, the rules of the road, international aspects of air law; and legislation for future development of air law.

170 LEGAL ETHICS. (2, 5) IV Murray
Hicks' Cases, Ethics of the Bench and Bar.
A study of the requirements for admission to the bar; bar organizations, with special reference to the organization in Kentucky and other states having integrated bars; procedure in disciplining lawyers; unauthorized practice of law; proper and improper methods of securing clients; fees and charges; contingent fees; and the relation of the lawyer to his client with special attention to confidential communications, representing conflicting interests, collections and accounting, and the effect of negligence and incompetence. The course also includes a study of the obligation of the lawyer to the court and society and the limitation on the lawyer in serving the interest of his client. There are chapters on the relation of lawyers and judges; lawyers and juries; lawyers and witnesses; lawyers and other lawyers; and on the effect of a lawyer's acts in private life. The course is taught from special assignment sheets wtih references to Kentucky Statutes and cases, and the Canons of Ethics of the American Bar Association.

172a-h PROBLEMS OF RESEARCH. (3 ea.) **I, II, III, IV** 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 law school staff.

173 FEDERAL JURISDICTION AND PROCEDURE. (3) Randall
Dobie and Ladd's Cases.
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 pleading and trial practice.

174 CREDIT TRANSACTIONS. (5) **III** Randall
Hanna's Cases on Security.
This course deals with real estate loans, suretyship, pledges, mortgages, disposition of stocks and bonds, and problems of agricultural finance.

176 TRADE REGULATION. (3) **II** Eblen
Oppenheim's Cases.
Contracts not to compete at common law. Competitive practices; intimidating and molesting; unfair practices; unfair advertising; combinations. The federal statutes and the N.R.A. legislation.

177 STATUTORY INTERPRETATION. (2, 5) **IV** Murray
de Sloovere's Cases.
This course covers the interpretation of statutes, including such matters as process of interpretation, subject matter and purpose of the state, content, associated words, extrinsic aids, relation to other statutes and to the common law, mandatory and directory provisions, judicial notice, operation, effect, and repeal of statutes.

178 CREDITORS' RIGHTS. (4) **II** Roberts
Hanna & McLaughlin's Cases (3rd ed.).
Enforcement of judgments; fraudulent conveyances; general assignments; receiverships, bankruptcy, assets, and distribution.

179 LEGISLATION. (4) **III** Eblen
Horack's Cases.
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, and relation of traditional law to legislation.

180 LABOR LAW. (3) **III** Moreland
Landis' Cases.
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 may 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.

181a-c LAW JOUURNAL NOTE EDITING. (1.5 ea.) Staff
This course is to be required of all senior members of the Law Journal staff and consists of 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.

182 **DEFENSE LEGISLATION AND MILITARY LAW. (4) III** Roberts

Schiller's Cases.

This course will deal with recent defense legislation affecting industries; legislation affecting property rights; legislation dealing with the establishing of a more efficient army and navy, including the Selective Service Act of 1940. The course will also cover the constitutional aspects of the questions involved.

183 **LANDLORD AND TENANT. (2) I, IV** Murray

Jacobs' Cases.

The course in Landlord and Tenant deals with the characteristics of leases; the creation of the relationship of landlord and tenant; covenants implied in the lease; restrictions on the lessee's use of the property; transfers by the lessor and by the lessee; rent; taxes; repairs; and termination of the relationship.

COLLEGE OF EDUCATION

AGRICULTURAL EDUCATION

Professors Hammonds and Woods, and Mr. Armstrong, Mr. Montgomery, Mr. Tabb, and Mr. Truitt

179 DETERMINING CONTENT IN VOCATIONAL AGRICULTURE (4) IV Hammonds
Interpretation of data as a basis for course building. Each student works out the content of a four-year course in vocational agriculture.

181 TEACHING VOCATIONAL AGRICULTURE (11) I, II, III
Armstrong, Hammonds, Montgomery, Tabb, and Truitt
Preparation for teaching of agriculture. About one-half of the course is practice.

182 ADULT-FARMER SCHOOLS AND YOUNG-FARMER COURSES IN AGRICULTURE. (3) I, II, III Hammonds
A general introduction to adult-farmer schools and young-farmer courses with some observation of work in both of these fields.

188 FARM PRACTICE SUPERVISION. (1)
Armstrong, Hammonds, and Tabb
Practice and directed study in supervising farm practice of pupils in vocational agriculture.

280 METHOD IN TEACHING VOCATIONAL AGRICULTURE. (4) IV Hammonds
The principles of method applied to the teaching of agriculture. **Prerequisite: Experience in teaching vocational agriculture.**

281 TEACHING PREVOCATIONAL AGRICULTURE. (4) Woods
Aims, purposes, and methods of teaching prevocational agriculture. Each student works out the content of a course, including selecting the teaching materials.

287a ADVANCED PROBLEMS IN AGRICULTURAL EDUCATION. (5) I, II, III, IV Hammonds and Woods
Specific problems selected according to the needs of the group.

287b SELECTING TEACHING MATERIALS. (4) IV Armstrong
Selection of specific references and other teaching materials to be used in the teaching of vocational agriculture.

287c ADULT-FARMER SCHOOLS. (4) IV Hammonds and Woods
Preparation for teaching adult farmers; organization of adult-farmer schools, curriculum content, method of teaching, and follow-up work.

287d DIRECTING FARM PRACTICE. (4) IV Hammonds
Farm practice as a method of teaching; standards, planning, supervision, and records.

287e TEACHING FARM SHOP. (4) IV Tabb
A study of necessary content for shop, plans for securing and equipping the shop, and methods of teaching farm shop.

287f **YOUNG-FARMER SCHOOLS. (4)** Hammonds and Woods
Content and method of teaching young-farmer courses in vocational agriculture.

289a, b **RESEARCH IN AGRICULTURAL EDUCATION. (5.5) I, II, III, IV** Hammonds and Woods
Individual problems of importance to agricultural education.

BUSINESS EDUCATION

Associate Professor Lawrence

104 **FOUNDATIONS OF BUSINESS EDUCATION IN THE HIGH SCHOOL. (4) I, IV** Lawrence
The origin, the status, and the objectives of business education in the secondary school. Required of business education majors.

158a **TEACHING SECRETARIAL SUBJECTS. (3) II, IV** Lawrence
Special techniques and devices for teaching shorthand, typewriting, and secretarial office practice. Required of business education majors.

158b **TEACHING ACCOUNTING. (3) III, IV** Lawrence
Materials and techniques used in the teaching of accounting. Required of business education majors.

184 **TEACHING OFFICE APPLIANCES. (3) I, IV** Lawrence
Methods and materials used in teaching the various office appliances to high school pupils. Dictating machines, mimeographs, multigraphs, graphotypes, mimeoscopes, addressing machines, filing devices, calculating machines, and other appliances are used.

192 **TEACHING GENERAL BUSINESS. (4) IV** Lawrence
A critical study of the objectives of the general business course. A syllabus is prepared for teaching this subject.

208a-d **PROBLEMS IN BUSINESS EDUCATION. (4 ea.) III, IV** Lawrence
Advanced problems in the field. The type of problems considered is influenced by the interests and needs of the group. Some of these problems are: testing in business subjects, extracurricular activities in commerce, job studies, placement and follow-up type of equipment, and supervision.

256 **THE SOCIAL BUSINESS SUBJECTS IN HIGH SCHOOL. (4) IV** Lawrence
An examination of the various social business subjects, to determine their contribution to the objectives of business education.

257a, b **SEMINAR IN BUSINESS EDUCATION. (1, 1) IV** Lawrence
A study of current literature in business education with special reference to trends in this field.

259 **THE COMMERCE CURRICULUM. (5) II, IV** Lawrence
A study of business subjects offered in the high school, to determine their content and the place each should occupy in high school curricula. A course of study is developed for each subject.

260 **TEACHING CONSUMER COURSES IN THE HIGH SCHOOL. (4) I, IV** Lawrence
Techniques and devices for teaching high school pupils the various aspects of consumer education. Emphasis is placed on procedures rather than on content and the student is presumed to have a background of training in economics before taking the course.

DISTRIBUTIVE OCCUPATIONS

Assistant Professor Baker

112 DETERMINING TEACHING CONTENT IN DISTRIBUTIVE OCCUPATIONS. (4) I, II, III, IV Baker
Course construction in the field of distributive occupations. This course is planned to meet the needs of persons engaged as instructors in the field of distributive occupations.

115a, b PROBLEMS IN DISTRIBUTIVE EDUCATION. (4.4) I, II, III, IV Baker
Problems involved in teaching vocational distributive education in day, part-time, and evening schools. The problems are selected in accordance with the needs and desires of the students. **Prerequisite: Education 112 and 128.**

116 PROBLEMS OF THE COORDINATOR IN DISTRIBUTIVE OCCUPATIONS. (4) I, II, III, IV Baker
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, in follow-up methods, in store contacts, and in securing the cooperation of personnel management are discussed.

128 TECHNIQUE OF TEACHING DISTRIBUTIVE OCCUPATIONS. (4) I, II, III, IV Baker
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 Chamberlain, Ligon, and Seay; and Associate Professor Meece

101 SCHOOL ORGANIZATION. (5) I, II, III, IV 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.

198 THE ADMINISTRATION OF PUPIL PERSONNEL. (4) IV Seay
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. (5) I, IV Seay and Meece
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. (4) II, III, IV Ligon

A study of court decisions, to discover the legal principles involved in practical problems of school administration. Topics discussed are: 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, contractual 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, Ed. 213, or Ed. 232.**

204 REDIRECTING EDUCATIONAL EFFORTS AND RESOURCES TO MEET NEW CONDITIONS. (4) II, IV Seay

The public school and its responsibilities. The course gives particular attention to changing emphases in education resulting from changes in the social and economic order.

206 PROBLEMS OF COLLEGE TEACHING. (4) Taylor

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. (4) Chamberlain

Measurement and evaluation of existing building facilities, planning new school buildings, financing the building program, building operation and maintenance. **Prerequisite: Education 202 or its equivalent.**

210 SPECIAL PROBLEMS IN SCHOOL ADMINISTRATION. (4) I, II, III, IV Seay

An independent work course for students doing their first year of graduate work in education. **Prerequisite: Education 101 or 202.**

213 STATE SCHOOL ADMINISTRATION. (4) II, IV 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.

221a, b SEMINAR IN ADMINISTRATION. (4.4) Seay and Meece

A critical study of selected problems in school administration.

225a SUPERVISION OF INSTRUCTION. (4) I, III, IV Seay

The development, purposes, organization, and planning of supervision; use of classroom visitation, demonstration lessons, teachers' meetings, and individual conferences; the course of study, tests and measurements, equipment and supplies, the teacher, and the pupil.

225b SUPERVISION OF INSTRUCTION. (4) II, IV Seay

Planning of specific programs for the improvement of instruction which are to be directed by superintendents, principals, supervisors, or helping teachers. Special consideration is given to current programs of in-service education of teachers as sponsored by different educational agencies in Kentucky.

231 FINANCING PUBLIC EDUCATION. (4) II, IV Seay and Meece

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. **Prerequisite: Education 202 or its equivalent.**

232 HIGH SCHOOL ADMINISTRATION. (4) I, III, IV 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. (4) I Seay and Chamberlain

A specialized course in school administration, primarily for prospective superintendents. The course emphasizes 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. (4) 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. (4) Chamberlain

A survey of modern tendencies in American higher education in the following areas: scope and development, objectives, organization, administration, curricula, finance, faculty and student personnel. The course 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. (4) Seay

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 function 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.

250a, b EDUCATIONAL PROBLEMS AND COMMUNITY RESOURCES. (4, 4) Seay

Primary emphasis is on the utilization of community resources in the improvement of instruction. Attention is given to national, regional, and local agencies, the work of which is closely associated with the educational program, and to experiments with and demonstrations of new methods and content in education.

276 ADMINISTRATIVE PROBLEMS IN TODAY'S EDUCATION. (4) Seay

Present-day problems of persons in administrative positions in public education. The course is designed to be of assistance particularly to superintendents of schools.

301a, b RESEARCH PROBLEMS IN EDUCATIONAL ADMINISTRATION. (4, 4) I, II, III, IV Seay and Meece

An independent research course. Students confer individually with the instructor. **Prerequisite: One year of graduate work.**

321a, b RESEARCH PROBLEMS IN HIGHER EDUCATION. (4, 4) I, II, III, IV Taylor and Chamberlain

An independent research course. Students confer individually with the instructor. **Prerequisite: One year of graduate work.**

EDUCATIONAL PSYCHOLOGY

Professors Ross and Hammonds

16 EDUCATIONAL PSYCHOLOGY. (5) I, II, III, IV Ross and Hammonds

Application of psychology to the problems of learning and teaching.

118 EDUCATIONAL TESTS AND MEASUREMENTS FOR ELEMENTARY TEACHERS. (4) III, IV Ross

The problems of measurement in the elementary school; formal and informal tests; marking systems; etc. **Prerequisite: One quarter of Psychology.**

119 FOUNDATIONS OF ELEMENTARY EDUCATION. (4) Ross

The psychology of the child in the primary and intermediate grades. **Prerequisite: One quarter of Psychology.**

122 EDUCATIONAL TESTS AND MEASUREMENTS FOR HIGH SCHOOL TEACHERS. (5) I, II, III, IV Ross

The problems of measurement in the junior and senior high school, with special emphasis on standardized tests. The construction and use of new-type tests, use and limitations of traditional examinations, marking systems, etc., are also considered.

147 FOUNDATIONS OF SECONDARY EDUCATION. (4) I, IV Ross

The psychology of the pupil in junior and senior high school. **Prerequisite: One quarter of Psychology.**

216 SEMINAR IN TESTS AND MEASUREMENTS. (4) IV Ross

A critical study of certain problems in measurement; individual work. **Prerequisite: Education 122 or 118.**

223 EDUCATIONAL STATISTICS. (5) III, IV Ross

A non-mathematical study of the applications of statistical and graphical methods to educational data.

254 PROBLEMS IN EDUCATIONAL PSYCHOLOGY. (4) I, II, III Ross

A critical survey of the conflicting schools of psychology, theories of learning, etc. **Prerequisite: One year of Psychology.**

ELEMENTARY EDUCATION

Professor Duncan; Associate Professor Hartford†; and Miss Adams, Miss Belser, Mrs. Boone, Mrs. Callaway, Mrs. Clark, Miss Conroy, Mrs. Haines, Miss Molloy†, Mrs. Trimble†, Miss Walton†, and Miss Willson

20 INDUSTRIAL ARTS FOR ELEMENTARY GRADES. (3) I, IV Haines

A practical course involving the use of tools and various materials suitable for use in the elementary school. It is intended for teachers who wish to make industrial arts an integral part of the elementary school curriculum.

42 ARITHMETIC IN ELEMENTARY GRADES. (4) II Duncan

A study of children's interests in, and needs for arithmetic: evaluation of practice and materials, organization of subject matter, activities involving arithmetic, drill, problem solving, diagnosis and remedial instruction, and testing.

44 FUNDAMENTALS OF ELEMENTARY EDUCATION. (10) I, III Haines and Duncan

A course planned to acquaint the student with the principles and practices of a modern elementary school. It includes directed observation and participation on the elementary level. (This course may be substituted for student teaching on the sophomore level for the Provisional Elementary Certificate.)

110 ADVANCED INDUSTRIAL ARTS. (3) III, IV Haines

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 construction activities pertaining to the study of records and shelter—book binding, block printing, paper decorating, toy making, elementary woodwork, and interior decorating.

133 STUDENT TEACHING IN THE ELEMENTARY SCHOOL. (15) I, II, III, IV Duncan and Supervising Teachers

A course designed to give the student experience with and practice in the program of a modern elementary school. (Note: The student spends from 8:00 a.m. until 2:00 p.m. in the classroom for the quarter. One hour per day additional, 2:00 p.m. to 3.00 p.m., is spent in conference and discussion with the supervising teacher. A student who has had three credits in student teaching may take this course with reduced hours and reduced credits. **Prerequisite: Education 44; senior standing in the elementary curriculum.**

141 PROBLEMS IN DIAGNOSTIC AND REMEDIAL READING. (4) IV Duncan

Problems of prevention, diagnostic, and remedial work in reading, with demonstration of the use of instrumentation in diagnosis and correction of reading difficulties and the application of these clinical procedures to problem cases. The course includes problems of elementary and high school teachers and administrators. (Three hours lecture and discussion and two hours laboratory.)

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

172 TEACHING READING IN THE ELEMENTARY SCHOOL. (5) III, IV Duncan

A practical application of principles derived from psychology and research, with 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. (5) II, IV Duncan

Literature for children from kindergarten to Grade VI; children's interests at different ages and stages of development; story telling and dramatization; reading and book reports from various types of literature—modern fantastic tales, realistic stories, biography, folklore, myths and legends, and poetry.

174 PRE-SCHOOL THEORY AND MANAGEMENT. (4) I Clark

The nature, development, care, and educational training of the pre-school child. Emphasis is placed on the formation of proper emotional and social habits and standards for the right environmental set-up. Students schedule regular periods for observing and assisting in the kindergarten.

176 PRE-SCHOOL ORGANIZATION AND TEACHING. (4) II Clark

The pre-school movement in Europe and America, and the organization, equipment, curriculum, and methods of pre-school teaching. Students taking this course schedule regular periods for observing and assisting in the kindergarten.

196 SCIENCE IN THE ELEMENTARY SCHOOL. (5) I, IV Adams

A background of elementary science usable with children in the first six grades. The course includes planning units of work, organizing and using materials and references, making bibliographies for teachers and children, use of illustrative material, and excursions.

212 THE ELEMENTARY SCHOOL. (5) III, IV Duncan

A course designed to help the superintendent, elementary principal, and elementary supervisor in a better understanding of the modern elementary school. The activity program, objectives, and research and study in the skills and content subjects of the elementary curriculum are discussed from the standpoint of supervision.

224 ORGANIZATION AND SUPERVISION OF STUDENT TEACHING. (5) II, IV Duncan

A course planned for students preparing to do critic teaching in the fields of elementary and secondary education. It includes the basic principles underlying the entire program and deals with specific problems for critic teachers on the elementary and secondary levels.

229 THE ELEMENTARY PRINCIPAL. (5) I, IV Duncan

Problems related to the elementary principalship: the professional preparation, selection, and status of the principal; the relation of the principal to other administrative officers, supervisors, teachers, pupils, and parents; problems of attendance, discipline, health, and records; and the application of sound principles to the improvement of teaching. Emphasis is 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 is given also to problems presented by members of the class.

308a, b RESEARCH PROBLEMS IN ELEMENTARY EDUCATION. (4, 4) I, II, III, IV Duncan
An independent research course. Students confer individually with the instructor. **Prerequisite: One year of graduate work.**

HISTORY OF EDUCATION

Dean Taylor

117a HISTORY OF EDUCATION. (4)
A survey of the history of secondary education from the Greek period to the present time.

117b HISTORY OF EDUCATION. (4)
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. (4)
The development of education through the colonial period and the early years of the national period.

201b RECENT EDUCATIONAL HISTORY IN THE UNITED STATES. (4)
The growth of education from the beginning of public education to the more recent educational movements.

219 GREAT EDUCATORS AND THEIR WORK. (4)
A study of the lives and writings of the world's educators to acquaint the student with the ideals and contributions to society of great educators.

220 COMPARATIVE EDUCATION. (4) II, IV Taylor
Comparisons of modern national systems of education.

235 HISTORY OF EDUCATION IN KENTUCKY. (4)
A course designed to give the student an historical background of education in Kentucky.

237a, b RESEARCH IN HISTORY OF EDUCATION. (4.4)
Independent work for students in history of education.

HOME ECONOMICS EDUCATION

Professors Parker and Spickard, and Miss Sneed

160 TECHNIQUE OF TEACHING HOME ECONOMICS. (4) I, II, III Parker and Spickard
A study of methods of teaching as applied to home economics. **Prerequisite: Home Economics 3, 6a, 6b, 26, 29, and 51; Education 147.**

162 STUDENT TEACHING IN HOME ECONOMICS. (8) I, II, III Parker and Spickard
Practical application of methods in teaching various phases of home economics. **Prerequisite: Education 160.**

165 ADULT EDUCATION IN HOME ECONOMICS. (4) I, II, III Parker and Spickard
Problems involved in teaching vocational homemaking in day, part-time, and evening schools.

261 HOME ECONOMICS SUPERVISION.
(4) IV Parker and Spickard
A course planned primarily to help prepare teacher trainers and supervisors of home economics education. **Prerequisite: Education 160 and 162; experience in teaching; approval of instructor.**

263 CURRENT PROBLEMS IN HOME ECONOMICS EDUCATION. (4) IV Parker and Spickard
Recent developments in the field of home economics education. **Prerequisites: Education 160 and Ed. 162; experience in teaching.**

264 MODERN TENDENCIES IN HOME ECONOMICS EDUCATION. (4) Parker
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 ea.) I, II, III Parker and Spickard
Individual investigations and reports on special problems in home economics education.

267 DIRECTED SUPERVISION IN HOME ECONOMICS EDUCATION. (4) Parker and Spickard
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 Education 261.) **Prerequisite: Two years' teaching experience; recommendation by the Department of Home Economics Education.**

268 HOME ECONOMICS CURRICULUM CONSTRUCTION.
(4) IV Parker and Spickard
A study of the underlying principles of curriculum building for junior and senior high school home economics. **Prerequisite: Education 160 and Ed. 162**

269 EVALUATION IN HOME ECONOMICS EDUCATION.
(4) IV Parker
A course 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†; Assistant Professor Hankins, and Mr. Crumpton

71 TRADE ANALYSIS AND COURSE PLANNING.
(4) IV Hankins and Crumpton
A course 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.

73 TEACHING RELATED SUBJECTS. (4) Hankins and Crumpton
A study of the techniques of teaching the related technical subjects in the field of trade and industrial education.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

77 SHOP MANAGEMENT PROBLEMS. (3) IV Hankins and Crumpton

Industrial education in the school shop. The course evaluates all types of activities in connection with this part of the educational program and gives due weight to each factor.

78 THE CONFERENCE METHOD OF INSTRUCTION IN INDUSTRIAL EDUCATION. (3) Hankins and Crumpton

Methods 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. (3) I, II, III Hankins and Crumpton

A study 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.

81 ANALYSIS OF LEARNING DIFFICULTIES IN INDUSTRIAL EDUCATION. (3) I, II, III, IV Hankins and Crumpton

A course planned to meet the needs of teachers of vocational subjects in the field of industrial education. An analysis is made of the learning difficulties encountered in teaching trade and related subject courses and remedial measures are studied.

108 COORDINATION TECHNIQUES IN INDUSTRIAL EDUCATION. (3) I, II, III, IV Hankins and Crumpton

A course for 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. (4) Hankins and Crumpton

A course designed to give the teachers, principals, superintendents, and welfare workers a comprehensive view of the factors in vocational guidance and of 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. (3) I, II, III Hankins and Crumpton

Modern industrial organizations; trends in industrial educational policies; the proper approach to and analysis of these problems as they affect the industrial vocational teacher.

171a, b PRINCIPLES AND PHILOSOPHY OF INDUSTRIAL EDUCATION. (3, 3) I, II, III, IV Hankins and Crumpton

A course 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. (4) IV Hankins and Crumpton

The most approved methods in instructional management, including lesson planning, in the field of vocational industrial education.

MUSIC EDUCATION

Professor Capurso

251 PROBLEMS IN PUBLIC SCHOOL AND COMMUNITY MUSIC. (5) II, IV Capurso
Problems in teaching, supervising, organizing, and leading public school and community music activities. Students in-service have an opportunity to bring problems from their own school or community situations and, when possible, the instructor visits them in the field. This course includes projects, demonstrations, readings, and discussion.

252 FIELD PROBLEMS IN MUSIC. (2) III, IV Capurso
A course 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. (5) III, IV Capurso
A course designed for graduate students who undertake research problems in music education, conducted in regular consultation with the instructor.

PHILOSOPHY OF EDUCATION

Dean Taylor; Professors Adams†, and Clifton; and Assistant Professor Starnes†

35 INTRODUCTION TO EDUCATION. (4) I, II, III Adams
The teacher, the teaching process, the school as a social agency, and the philosophy of education.

114 EDUCATIONAL SOCIOLOGY. (4)
The application of sociological findings to the field of education within the school and home.

127 THE ELEMENTARY CURRICULUM. (4)
The philosophy and techniques of curriculum construction and some practical work in construction.

175a-f MODERN EDUCATIONAL PROBLEMS. (4 ea.)
A brief survey of some of the problems in modern education.

175g MODERN EDUCATIONAL PROBLEMS: EDUCATION OF HANDICAPPED CHILDREN. (4) IV
Procedures to be used in the education of children who are handicapped physically, mentally, or emotionally. Attention is given to work with individual children as well as with groups.

175i MODERN EDUCATIONAL PROBLEMS: COMMUNITY ORGANIZATION IN ADULT EDUCATION. (4)
Problems of community organizations as they affect the adult life of citizens of the community served.

186 VISUAL TEACHING. (4) I, IV Clifton
Methods and techniques 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 is given also to the administration of visual aids in the school.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

200a, b PHILOSOPHY OF EDUCATION. (4, 4) II, III, IV Adams
An advanced course dealing with the philosophy underlying the larger educational problems of today. **Prerequisite: 16 quarter hours in Education.**

205a, b REVIEW OF CURRENT EDUCATIONAL LITERATURE.
(4, 4) I, II, III, IV Adams
An extensive study of current educational literature as found in educational periodicals. **Prerequisite: 16 quarters hours in Education.**

222 METHODOLOGY OF EDUCATIONAL RESEARCH.
(4) I, III, IV Taylor
A course 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: 16 quarter hours in Education.**

226a-d PROBLEMS OF THE SECONDARY SCHOOL CURRICULUM. (4 ea.)
Problems in the field of the secondary school curriculum. Students enrolling in this course are required to leave on file with the College of Education a complete report of each problem studied.

227a PRINCIPLES OF CURRICULUM CONSTRUCTION.
(4) II, IV Adams
A survey of modern curriculum-making as carried on in progressive city and county school systems, laboratory schools, and state school systems; also an intensive study of the principles underlying curriculum revision. **Prerequisite: Teaching experience; 16 quarter hours in Education.**

227b TECHNIQUES IN CURRICULUM CONSTRUCTION.
(4) III, IV Adams
The techniques employed to determine content of courses of study. **Prerequisite: Teaching experience; 16 quarter hours in education.**

228a-d SEMINAR IN EDUCATION. (1 ea.) Taylor
A course planned for graduate students majoring in education, given under the direction of the faculty of the College of Education.

230 PROBLEMS OF EDUCATIONAL SOCIOLOGY. (4)
An advanced course in the application of sociology to the educational field. **Prerequisite: 16 quarter hours in Education, including Education 114.**

234 PROBLEMS IN CURRICULUM MAKING. (4) II Adams
The selection of materials in the elementary and secondary fields, the types of units used in modern instruction, how the child learns, the various educational agencies in the community, and how the school may be made a real community center.

245 ORGANIZATION OF AUDIO-VISUAL AIDS. (4) Clifton
Beginning the audio-visual program, qualifications and duties of staff members assisting in the audio-visual program, sources and criteria for judging equipment and supplies, the audio-visual aids budget, projection mechanics, and in-service teacher training.

246 MOTION PICTURES IN EDUCATION. (4) Clifton
The history of the educational motion picture, technique in the use of films, educational scenario writing, grading and scoring films, and motion picture appreciation.

275 ADVANCED PROBLEMS IN PHILOSOPHY OF EDUCATION. (4) IV
Problems in modern education. Special emphasis is given to such problems as social strains and conflicts, cultural and community foundations, the readjustment and reconstruction of our various traditions, and the process of solving these problems from the standpoint of the schools.

SECONDARY EDUCATION

Professors Duncan and Ligon; Associate Professor Hartford†; and Mrs. Adams†, Miss Anderson, Mr. Betz†, Mr. Briggs, Mrs. Gilb, Mr. Ginger, Mrs. Greathouse, Mrs. Haines, Miss Humphreys, Mr. Kelly, Mr. Kemper†, Mr. Kurachek†, Miss Mason†, Miss May, Mrs. Mercer†, Miss Peck, Miss Shipman, and Miss West

105 FUNDAMENTALS OF SECONDARY EDUCATION. (4) I, II, III, IV Ligon
Laboratory methods of instruction: fundamental processes, control, operation, and administration.

107 SAFETY EDUCATION. (4)
Techniques and skills for the teaching of safety education in all its aspects. Particular emphasis is placed on driver education and the problems related thereto.

111 REMEDIAL READING IN THE SECONDARY SCHOOL. (3) 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 are required of all students. The course includes a critical study of the investigations and literature in the field.

142 STUDENT TEACHING IN ART. (9) I, II, III Haines
A course planned for teachers who contemplate becoming supervisors of art in the public schools. **Prerequisite: Education (see Professional Major); 27 quarter hours in Art; senior standing.**

153 STUDENT TEACHING IN ENGLISH. (9) I, II, III, IV Adams, Anderson, Greathouse, and Shipman
Course of study, minimum essentials, materials, methods, testing, language and composition, and literature. The course includes observation and practice, five hours; and conferences, two hours. **Prerequisite: Education (see Professional Major); 27 quarter hours in English; senior standing.**

154 STUDENT TEACHING IN LANGUAGES. (9) I, II, III, IV West
Aims and objectives, course of study, methods, tests, equipment, and analysis of textbooks. The course includes observation and practice, five hours; and conferences, two hours. **Prerequisite: Education (see Professional Major); 27 quarter hours in subject to be taught; senior standing.**

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

155 STUDENT TEACHING IN THE SCIENCES.
(9) I, II, III, IV Ginger and Kelly

Aims and objectives, courses of study, methods, tests, equipment, general science, biology, physics, and chemistry. The course includes observation and practice, five hours, and conferences, two hours. **Prerequisite: Education (see Professional Major); 27 quarter hours in subject to be taught; senior standing.**

156 STUDENT TEACHING IN MATHEMATICS.
(9) I, II, III, IV May

Course of study, materials, methods, and testing. The course includes observation and practice, five hours; and conferences, two hours. **Prerequisite: Education (see Professional Major); 27 quarter hours in Mathematics; senior standing.**

157 STUDENT TEACHING IN THE SOCIAL STUDIES.
(9) I, II, III, IV Adams, Peck, and Shipman

Objectives, preparation of the teachers, courses of study, methods, supplementary materials, visual instruction, testing, and professional helps. The course includes observation and practice, five hours; and conferences, two hours. **Prerequisite: Education (see Professional Major); 27 quarter hours in subject to be taught; senior standing.**

169a-c STUDENT TEACHING IN PHYSICAL EDUCATION.
(3 ea.) I, II, III Gilb and Ginger

A course for students who desire to become directors of physical education and coaches of athletics in the public schools. **Prerequisite: Education (see Professional Major); 27 quarter hours in Physical Education; senior standing.**

177a-c STUDENT TEACHING IN MUSIC.
(3 ea.) I, II, III Mason

A course planned for teachers who contemplate becoming supervisors of music in the public schools. **Prerequisite: Education (see Professional Major); 27 quarter hours in Music, senior standing.**

193 STUDENT TEACHING IN BUSINESS EDUCATION.
(9) I, II, III, IV Humphreys

Practice in junior business training, in shorthand, in typewriting, and in such other commercial subjects as are commonly taught on the secondary level. **Prerequisite: Education (see Professional Major); 27 quarter hours in Commerce; senior standing.**

214a, b THE SECONDARY SCHOOL. (4, 4) I, II, III, IV Ligon

A course 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.

241 PROBLEMS IN TEACHING THE SOCIAL STUDIES.
(4) IV Peck

Approved methods of teaching the social studies. Source materials dealing with the problems of teaching, such as research findings, yearbooks, and periodicals, are investigated and current practices in the best high schools of the country are stressed.

242 PROBLEMS IN TEACHING ENGLISH. (4) IV Anderson

Approved methods of teaching English. Source materials dealing with the problems of teaching, such as research findings, yearbooks, and periodicals, are investigated and current practices in the best high schools of the country are stressed.

243 PROBLEMS IN TEACHING MATHEMATICS. (4) IV

Approved methods of teaching mathematics. Source materials dealing with the problems of teaching, such as research findings, yearbooks, and periodicals, are investigated and current practices in the best high schools of the country are stressed.

244 PROBLEMS IN TEACHING PHYSICS. (4) IV

Approved methods of teaching physics. Source materials dealing with the problems of teaching, such as research findings, are investigated and current practices in the best high schools of the country are stressed.

249 EXTRACURRICULAR ACTIVITIES. (4) III Ligon

Underlying principles, faculty activities, home-room activities, student council, clubs, athletics, publications, dramatics, honor societies, and commencements. **Prerequisite: 16 quarter hours in Education.**

307a, b RESEARCH PROBLEMS IN SECONDARY EDUCATION. (4, 4) I, II, III, IV Ligon

An independent research course. Students confer individually with the instructor. **Prerequisite: One year of graduate work.**

VOCATIONAL EDUCATION

Professors Hammonds and Woods†

211 THE ADMINISTRATION OF VOCATIONAL EDUCATION. (4) II Hammonds and 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. (4) I, II, III, IV Woods

An independent work course for students interested in vocational education. Students make individual investigations and report on special problems.

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† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

COLLEGE OF COMMERCE

Dean Wiest; Professors Carpenter†, Carter, Haun†, Jennings, McIntyre†, J. W. Martin, and Palmer†; Associate Professors Ketchum, Lawrence, Moore†, and Sullivan; Assistant Professors Beals, Guy†, Thomas, and Tolman†, and Instructors Bekker†, and D. T. Martin

ECONOMICS

1 PRINCIPLES OF ECONOMICS. (5) I, II, III, IV Wiest and others
The theory of production, consumption, value, and distribution. **Not open to freshmen.**

2 ECONOMIC HISTORY OF EUROPE. (4) I, III, IV 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. (4) II, III, IV 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.**

4 RESOURCES AND INDUSTRIES. (4) I, II, IV Carter
The economic factors which govern the utilization of world resources and the exchange of products.

15 APPLIED ECONOMICS. (4) II Sullivan and others
Fundamental aspects of money and banking, industrial efficiency, marketing, transportation, public utilities, public finance, social control, et cetera.

16a, b TUTORIAL WORK IN ECONOMICS. (1, 1) II, III Carter
Open only to Arts and Sciences majors.

102 LABOR PROBLEMS. (4) I, IV Carter
Insecurity, wages and income, substandard workers, industrial conflict; wage theories, the economics of collective bargaining, unionism in its structural functional aspects, and recent development. **Prerequisite: Com. 1.**

103 TRANSPORTATION. (4) I, IV Sullivan
Railways, waterways, highways, and airways. Rates, service, management, and regulations. **Prerequisite: Com. 1.**

104 PUBLIC FINANCE. (4) I, III, IV Martin
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.**

† See appended list of leaves of absence, resignations, deaths, etc. p. 332.

105 MONEY AND BANKING. (4) II, III, IV 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.**

107 STATISTICAL METHOD. (4) I Palmer
Introduction to the sources of business data, the use of calculating machinery, tabulation, simple charts and graphs, the averages, dispersion, correlation, and time series analysis.

110 BUSINESS CYCLES. (4) I, II, III, IV Palmer
The nature and characteristics of the economic factors which underlie the cyclical fluctuations in business conditions and the methods of business and investment forecasting. **Prerequisite: Com. 1 and an elementary course in statistics.**

112a, b INDIVIDUAL WORK IN ECONOMICS. (1) I, II, III, IV Staff
In this course a selected group of advanced students who have at least a standing of 2.0 are given special problems for intensive investigation. The students are expected to do more work than the usual amount required per quarter hour.

114 WAR ECONOMICS. (4) I, III, IV Carpenter
A descriptive and analytical study of the problems involved in the transition to a war economy. The necessity for planning, the peculiar problems connected with strategic materials, the difficulties of maximizing war production, war financing, price control, rationing, priorities, credit control, export control, and post-war reconstruction are examined. **Prerequisite: Com. 1.**

115 VALUE AND DISTRIBUTION THEORY. (4) I Sullivan
The major emphasis is on current theory.

124 STATE AND LOCAL TAXATION. (4) II, IV 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.

125 EVOLUTION OF ECONOMIC INSTITUTIONS. (4) 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 resolution. **Prerequisite: Com. 2 or consent of instructor.**

126 ECONOMICS OF PUBLIC UTILITIES. (4) I, IV 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, and accounting. **Prerequisite: Com. 1.**

127 INTERNATIONAL ECONOMIC POLICIES. (4) III 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, and reparations. **Prerequisite: Com. 1.**

130 LABOR LEGISLATION. (4) III 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.**

134 ADVANCED ECONOMIC HISTORY OF THE UNITED STATES. (4) 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 students who have had Com. 3 except when doing graduate work.**

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.**

147 AMERICAN BUSINESS LEADERS. (2) I Jennings
Biographical sketches of a selected list of men including their business achievement and their relationships to the economic and social life of their time. **Prerequisite: Com. 3 or consent of instructor.**

148 EUROPEAN BUSINESS LEADERS. (2) 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. **Prerequisite: Com. 2 or consent of instructor.**

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. **Prerequisites: Com. 1, and an elementary course in statistics.**

153 THE ECONOMICS OF CONSUMPTION. (3) 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.

202a-f SEMINAR. (1 ea.) I, II, III, IV 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.

203 HISTORY OF ECONOMIC THOUGHT. (5) 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. (3) 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. (3) II Jennings
A continuation of Com. 204, but may be taken independently. **Not open to students who have taken Com. 134 for graduate credit.**

206a MUNICIPAL FINANCE. (2) I Martin
City and county budget and related problems are studied in reports and seminar.

206b MUNICIPAL FINANCE. (2) II Martin
City and county debt, purchasing, treasury, and revenue problems are studied in reports and seminar.

207a, b PROBLEMS IN PUBLIC FINANCE. (2, 2) II, III Martin
Depending on varying needs of public finance students from time to time, specific subject matter will be selected for study. Each student's report will indicate the class of problems intensively examined.

208 ADVANCED ECONOMIC THEORY. (4) III Sullivan
A critical examination of current literature on economic problems and policies. **Prerequisite: Com. 1.**

209 COMPARATIVE BANKING AND MONETARY SYSTEMS. (4) 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) I 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. (4) III Carpenter
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. (4) II Wiest
This course is virtually a continuation of Course 203.

216 BUSINESS CYCLE THEORY. (2) III Palmer
An advanced course including a reading of important theories and studies of the business cycle. **Prerequisite: Com. 110.**

COMMERCE

6 SECRETARIAL ACCOUNTING. (3) III Beals
A study of accounting systems for the professions, small businesses, and institutions, where the secretary ordinarily keeps the records. **Prerequisite: Com. 7b.**

7a, b PRINCIPLES OF ACCOUNTING. (5, 5) I, II, III, IV Haun and others
Instruction in the science and adaptation of the accounts of going concerns, together with sufficient practice to acquire proficiency. Recitation, three hours; laboratory, four hours a week.

9 BUSINESS ORGANIZATION. (4) I, II, III, IV Ketchum and others
A course designed to introduce students to the field of business. The relation of the business unit to the economic system; the internal organization of business firms of different types and in varied industries; description of the major functions of departments of a business unit; governmental regulation of monopoly and other undesirable commercial practices.

10 PRINCIPLES OF MARKETING.
(5) I, II, III, IV McIntyre and Moore
A functional study of the market organization. Considerable time is given to the discussion of retail types such as 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. (3) I, II, III 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. **Prerquisite: Com. 1 and Com. 10.**

13a SECRETARIAL PRACTICE, SHORTHAND.
(4) I, II, III, IV Lawrence and 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 or concurrent: English 1a.**

13b SECRETARIAL PRACTICE, SHORTHAND.
(4) I, II, III, IV Lawrence and Guy
A continuation of Gregg shorthand with sufficient practice to develop a speed of from 90-100 words a minute in dictation. **Prerequisite: Com. 13a or its equivalent.**

14a ADVANCED SECRETARIAL PRACTICE.
(4) I, II, III, IV Lawrence and Thomas
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. Four recitations a week. **Prerequisite: Com. 13a, 13b, 17a, 17b, or their equivalent.**

14b ADVANCED SECRETARIAL PRACTICE.
(4) II, IV Lawrence and Thomas
A continuation of Commerce 14a with special emphasis on secretarial duties and traits. A speed of 125 words a minute in dictation and 40 words a minute in transcription is required. Four recitations a week. **Prerequisite: Com. 14a or its equivalent.**

17a SECRETARIAL PRACTICE, TYPEWRITING. (3) I, II, III, IV 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 40 words a minute is required. **Prerequisite or concurrent: English 1a.**

17b SECRETARIAL PRACTICE, TYPEWRITING. (3) I, II, III, IV Lawrence and Guy
A continuation of Commerce 17a with emphasis on the development of speed and accuracy sufficient for vocational use. A speed of 60 words a minute is required. **Prerequisite: 17a.**

18 FILING. (2) I, III, IV Lawrence
The general principles, procedures, and systems of filing including sufficient practice with laboratory sets to develop facility and skill. Emphasis will be placed upon filing in business and government offices with a view to preparing file clerks for such offices.

19 OFFICE APPLIANCES. (2) II, IV Lawrence
The use of dictating, duplicating, and addressing machines, and similar appliances. Sufficient practice will be given to develop skill in the operation and care of such equipment. **Prerequisite: Com. 17a.**

101 SECRETARIAL OFFICE PRACTICE. (2) III Lawrence
This course is designed to provide laboratory and office experience for senior secretarial students. A minimum of 48 hours of office experience under supervision is required. **Prerequisite: Com. 14a, b.**

106a INTERMEDIATE ACCOUNTING. (4) II, IV Haun and Beals
Principles of financial statement, arrangement, and content. Corporation accounting. Accounting for consignment and installment sales. **Prerequisite: Com. 7a, b.**

106b INTERMEDIATE ACCOUNTING. (4) III, IV Haun and Beals
Accounting for partnerships, ventures, agencies, and branches. Accounting features of insolvent concerns and of consolidations and mergers. Estate accounting. **Prerequisite: Com. 7a and 7b.**

108 ACCOUNTING THEORY. (3) I Beals
The function of accounting, asset valuation, recognition of revenue and expenses, and classification of equities, will be studied with a view to presenting a coordinated body of accounting theory. **Prerequisite: Com. 106b.**

109a, b BUSINESS LAW. (4, 4) I, II, III, IV Haun and Murray
A survey of the principles of contracts, sales, bills and notes, and that portion of the law of torts applicable to business practices **Prerequisite: 2 years of Commerce Curriculum.**

111 ADVANCED SALESMANSHIP. (4) IV 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 coordination of selling with the related fields of advertising, merchandising, credit management, and market research will be considered. **Prerequisite: Com. 11 or consent of instructor.**

113 AUDITING. (4) III, IV 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. **Prerequisite: Com. 7a, b.**

117 CORPORATION FINANCE. (4) I, II, III, IV 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. **Prerequisite: Com. 1, Com. 7a, and Com. 7b.**

118 COST ACCOUNTING. (4) I, IV Haun and Beals
The place of cost accounting in the general field of accounting, special records and cost statistics, and application to particular business. **Prerequisite: Com. 7a, and 7b.**

119 RETAIL MERCHANDISING. (4) II, IV McIntyre
Selecting a business location, internal layout, departmentalization, merchandizing control, store policies toward the public, training and management of personnel, and related subjects. **Prerequisite: Com. 1 and Com. 10.**

129 **CREDIT AND STATEMENT ANALYSIS. (3) I** Haun and Beals
The theory underlying credit-granting, credit administration, and analysis and interpretation of financial statements. **Prerequisite: Com. 7a.**

131 **INVESTMENTS. (4) 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. **Prerequisite: Com. 105 and Com. 117.**

132a, b **C. P. A. PROBLEMS. (3, 3) II, III** 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. **Prerequisite: Com. 106a and 106b.**

133 **INCOME TAX PROCEDURE. (4) II** Haun and Beals
The preparation of income tax returns for individuals and corporations of all classes and a practical application of principles of accounting. **Prerequisite: Com. 106a, b.**

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 is used, supplemented with outside reading and written reports. **Prerequisite: Com. 11 or the consent of the instructor.**

137 **PROBLEMS IN MANAGEMENT. (4) II, III** 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 quarter 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 and to graduate students who have had the necessary prerequisite training.**

138 **INVESTIGATION OF BUSINESS PROBLEMS. (4) III** 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 and to graduate students who have had the prerequisite training.**

140 **ADVERTISING CAMPAIGNS. (4) I** 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. **Prerequisite: Com. 11, Psychology 5, or the consent of the instructor.**

143 LIFE INSURANCE. (4) I, IV Carpenter
Economics of life insurance, organization and control, special forms of life insurance, and fundamental principles of rate-making. **Prerequisite: Com. 1.**

144 PROPERTY AND CASUALTY INSURANCE. (4) II Carpenter
Public control, nature of contracts, analysis of reserve functions, and rate-making processes. **Prerequisite: Com. 1.**

145 OFFICE MANAGEMENT. (4) III, IV Lawrence
Planning and scheduling of work; employment procedures; supervision of employees, retraining, promotion; and equipment.

149 MARKET ANALYSIS. (4) III McIntyre
Training in the application of scientific method to research in fields of marketing. A major marketing investigation will be conducted by the class. **Prerequisite: Com. 10 and a course in statistics.**

150 BUSINESS STATISTICS. (3) I, II, III, IV 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: An elementary course in statistics.**

151 SECRETARIAL STATISTICS. (4) II 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, and the sources of statistical materials of interest to business. **Prerequisite: Com. 17a.**

154 URBAN REAL ESTATE. (4) III 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, and the problem of real estate securities as investments. Governmental activities. **Prerequisite: Com. 117.**

155 INDUSTRIAL RELATIONS. (4) III Carter
Historical development of industrial relations; the economic implications of job analysis, recruitment, selection and training for industry; wages, hours, promotion and health policies; employee representation, collective bargaining, established policies, practices, and procedures under the law; union-management cooperation, building morale, and the public service.

156 BUSINESS REPORTS. (3) II, III Lawrence
Major emphasis is placed upon sources of data, compilation and arrangement of data, documentation, bibliographies and effective presentation of reports. Problems will be assigned in the various areas of interest.

Courses in Mathematics of Finance, Psychology of Advertising, Industrial Psychology, and Business English are given in 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 by the Executive Committee of the Board of Trustees of the Agricultural and Mechanical College of Kentucky on September 25, 1885. It continues to function 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 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 and Home Economics, and the U. S. Department 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.

Farm and Home Week is held during the last week in January. It is the purpose of this meeting 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 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, Departments, of Finance and Revenue, city and county governments, and other Kentucky, other state, and federal agencies.

BUREAU OF ENGINEERING RESEARCH AND DEVELOPMENT

The Bureau of Engineering Research and Development of the College of Engineering was established on January 12, 1943 by action of the Board of Trustees of the University.

It was formed in order that there might be an official agency in the College of Engineering to initiate, organize, and supervise engineering research of special interest to Kentucky and to the Nation; to advise with state and federal authorities on problems proposed for investigation; to aid and consult industry with its research problems; to serve as an agency for developing and coordinating industrial and scientific research; and to collaborate with other agencies engaged in engineering research in order to achieve coordination and prevent duplication of effort.

The departments of research include Civil, Highway, Metallurgical, Mechanical, Electrical, Communications, Mining, Prospecting, and Aircraft Engines.

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 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. The University of Kentucky: Its history and its contribution through faculty, alumni, and former students, to the state, including its part in the Nation's war effort in both civilian and military service.
2. Institutions of higher learning, land-grant colleges 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.
3. Trends in education: Charters and admission and degree requirements of the colleges in the United States by twenty-five-year periods.
4. Special collections, such as Kentuckiana founded by Professor Noe, and the International Textbook Exhibit.

A special assignment of the Bureau is to prepare for publication a roster of the faculty, alumni, and former students of the University in the armed forces of the United States, including their rank, branch of service, and citations.

CHILD GUIDANCE SERVICE

The Child Guidance Service offered at the University, through the cooperation of the Lexington Junior League and Community Chest, 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.

INDUSTRIAL PSYCHOLOGICAL SERVICE

The Department of Psychology makes available to industries, business establishments, and offices, both private and public, industrial psychological service including various forms of industrial testing, personnel surveys, selection devices, and advice on miscellaneous personnel problems. It constitutes a significant opportunity for students interested in industrial personnel work to obtain practical experience and to conduct research in this field.

EDUCATIONAL TESTING SERVICE

The central offices of the Kentucky Cooperative Testing Service are located in the Psychology Department at the University. This service was established by the Kentucky Association of Colleges and Secondary Schools for the purpose of conducting annual testing programs in the colleges and high schools. The programs provide test information for vocational and educational counseling in the colleges and high schools. The Kentucky Cooperative Testing Service prepares and publishes the basic tests used. Complete files of test information are available for use in research projects concerned with the topics of test construction, vocational and educational guidance, and college personnel.

PERSONNEL OFFICE

The University Personnel Office 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 office or are sent to it for prolonged guidance concerning their vocational training, or per-

sonal problems. The office 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.

MENTAL HYGIENE SERVICE

The Mental Hygiene Service assists students in solving problems of personal adjustment. Through diagnostic and psychotherapeutic conferences with professionally accredited psychologists, in cooperation with the University Health Service, the student is given an opportunity to understand and to utilize his fundamental abilities, emotions, and interests.

DEPARTMENT OF PUBLIC RELATIONS

The Department of Public Relations 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, films, student goodwill organizations, school contacts, and personal appearance of University speakers and University musical groups. Through the University's Frequency Modulation radio station, WBKY, many students annually receive professional training in all phases of radio production. The mountain Radio Listening Center System is also under the supervision of this department.

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 KENTUCKY ENGINEER

The Kentucky Engineer, founded in 1939, is published each quarter of the school year in November, February, May, and August by students and faculty of the College of Engineering. In general the articles are written by students, faculty, and alumni. It is also the official publication of the Kentucky Society of Professional Engineers. Special consideration is given to important engineering projects within the State of Kentucky, to the activities of the College of Engineering, to reporting research projects, and to other matters of general interest to the engineering profession.

LAW JOURNAL

The Kentucky Law Journal is published quarterly in November, 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 lawyers 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 ACTIVITIES PROGRAM

The Department of University Extension sponsors the Kentucky High School Speech League, the Kentucky High School Music Festivals, and the Kentucky High School Art Exhibit. The music and speech events are held in April and May and are preceded by district or regional meetings.

PART V

THE ACADEMIC AND ADMINISTATIVE STAFF OF THE UNIVERSITY

THE ACADEMIC AND ADMINISTATIVE STAFF[1]

Adams, Estelle, M.A., Second Grade, University School
*Adams, Esther N., A.B., Seventh Grade, University School
*Adams, Jesse Earl, M.A., Ph.D., Professor of Philosophy of Education, Head of the Department of Philosophy of Education
*Allbritten, Herbert Graves, M.S., Assistant in Agronomy, Experiment Station
Allen, Harry Raymond, M.A., Chemist, Feed and Fertilizer Control, Experiment Station
Allen, Richard Sweetnam, M.S., Professor of Anatomy and Physiology, Head of the Department of Anatomy and Physiology
Allen, William Ray, M.A., Ph.D., Professor of Zoology
Anderson, C. Arnold, M.A., Ph.D., Associate Professor of Sociology, 1945-46
Anderson, Charles Herbert, Professor of Engineering Design, Emeritus
Anderson, Grace, M.A., English, University School
Anderson, Virginia Frances, B.S., Instructor in Anatomy and Physiology
Anderson, Walter Sewell, M.A., Professor of Genetics, Emeritus
Armstrong, Watson, M.A., Instructor in Agricultural Education
Armstrong, William Davis, B.S., Horticulturalist, Experiment Station
*Asher, Eston Jackson, M.A., Associate Professor of Psychology
*Astle, Melvin J., M.S., Ph.D., Instructor in Chemistry
Averitt, Saxe Dabney, M.S., Chemist Emeritus, Experiment Station
*Bailey, Lowell F., Ph.D., Assistant Chemist, Department of Chemistry, Experiment Station
*Baker, K. Y., Staff Sergeant, U. S. Army, Instructor in Military Science
Ball, William, A.B., Field Agent in Farm Labor, Agricultural Extension Division
*Balzola, Huguette, Assistant in French, University School
Barber, Harold, Head Herdsman, Experiment Station
*Bardwell, J. L., Sergeant, U. S. Army, Instructor in Military Science
Baker, Walter Maurice, M.A., Assistant Professor of Education; Head of the Department of Distributive Occupations

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[1] A degree is not listed when it is clearly implied by one following.
* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

Barkenbus, Charles, Ph.D., Professor of Organic Chemistry
Barkley, Marie Rodes, M.A., Assistant Professor of Home Economics
Barkman, John Orville, B.S. in Agr., Assistant Professor of Dairy Manufactures; Field Agent in Dairy Manufactures, Agricultural Extension Division
Barnett, Brinkley, B.M.E., Associate Professor of Electrical Engineering
*Barnhart, C. Raymond, M.A., Assistant Professor of Art
Baugh, Lucille Gaines, B.S., Seed Analyst, Experiment Station
Beals, Wendell Everett, M.B.A., C.P.A., Assistant Professor of Accounting
*Beaumont, Henry, Ph.D., Professor of Psychology
*Beazley, James Allen, A.B. in Ed., Instructor in Physical Education; Assistant in Physical Education, University School
*Bedford, Matthew Hume, Ph.D., Professor of Physical Chemistry
Beebe, Morris Wilson, M.S., Associate Professor of Metallurgical Engineering
Beers, Howard Wayland, M.S., Ph.D., Professor of Rural Sociology; Rural Sociologist, Experiment Station
*Beiter, Jean Sandell, M.S. in H.E., Instructor in Home Economics
*Bekker, Konrad, Dr. jur., Ph.D., Instructor in Economics
Belser, Clara Helen, M.A., Fifth Grade, University School
Bertrand, Warren Arthur, M.A., Ph.D., Assistant Professor of Psychology
*Best, Harry, LL.B., Ph.D., LL.D., Professor of Sociology
*Betz, Albert Leslie, B.S. in Com., M.A., Business Education, University School
*Bigge, Adolph Edmund, M.A., Ph.D., Professor of German, Head of the Department of German Language and Literature
Boles, Stanley Atwood, M.A., Associate Professor in the Department of Athletics; Ticket Sales Manager
Bondurant, John Harvey, M.S., Ph.D., Assistant in Farm Economics, Experiment Station
Boone, Anna Bruce, A.B., Fourth Grade, University School
*Bortner, Charles Eugene, M.S., Assistant Agronomist, Experiment Station
Bostick, Lew, B.S. in Com., Assistant Professor in the Department of Athletics, Assistant Football Coach
Boughton, Bessie M., A.B., B.S., First Assistant Cataloger, University Library
Bower, William Clayton, M.A., LL.D., D.D., Part-time Professor of Sociology, Acting Head of the Department of Sociology
*Boyd, G. Robert, M.A., Ph.D., Assistant, Bureau of School Service

* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

Boyd, Paul Prentice, M.A., Ph.D., LL.D., Professor of Mathematics, Head of the Department of Mathematics and Astronomy; Dean of the College of Arts and Sciences

Boyden, Ruth, M.A., Assistant in Home Economics, Experiment Station

Bradford, Lawrence Allen, M.S. in Ed., Associate Professor of Farm Management; Assistant State Farm Labor Supervisor

Brady, George Keyports, M.A., Ph.D., Professor of English

*Branson, Carl C., M.A., Ph.D., Associate Professor of Geology

Brauer, Alfred Charles, M.A., Ph.D., Professor of Zoology

*Brewer, Boltos Elder, B.S., Colonel, U. S. Army, Professor of Military Science and Tactics, Head of the Department of Military Science and Tactics

Brewer, Lawrence Condit, B.S., Assistant in Short Courses and Exhibits, Agricultural Extension Division

*Briggs, Wallace Earl, A.B., Instructor in English; Director of Guignol Theater 1944-45

Brooks, Jesse Byron, B.S., Field Agent in Agricultural Engineering, Agricultural Extension Division

Browder, James, B.S. in Agr., Field Agent in Cream Grading

Brown, Aubrey J., M.S., Assistant Professor of Marketing; Assistant in Markets, Experiment Station

*Brown, Ernest Benton, Jr., M.S., Assistant Professor of Anatomy and Physiology

Brown, Frances, B.S. in H.E., M.S. in Ed., Home Economics, Bryan Station School

Brown, Henry Corley, B.S. in Agr., Field Agent in 4-H Club Work, Agricultural Extension Division

Brown, Joe Beckham, B.S. in Agr., Inspector, Creamery License Section

Brown, Linwood Arnold, Pharm.D., Ph.G., Head, 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

*Bull, Jacqueline Page, A.B., Part-time Instructor in Library Science; Head of Archives Department, University Library

Bureau, Ernest Adolphe, B.S., Ph.B., E.E., Professor of Electrical Engineering; Head of the Department of Electrical Engineering

Byers, George Boyd, M.S. in Agr., Assistant in Farm Management, Experiment Station

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* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

Caldwell, Lowry McReynolds, B.S., Assistant Superintendent, Western Kentucky Sub-station

*Callihan, Anne Worthington, A.B., Assistant Professor of Art

Calloway, Bernice Naylor, A.B. in Ed., First Grade, University School

*Capurso, Alexander Alexis, B.S. in Mus., M.A., Ph.D., Professor of Music, Head of the Department of Music

Card, Dana George, M.S., Ph.D., Associate Professor of Agricultural Economics; Assistant in Markets, Experiment Station

*Carpenter, Cecil C., M.S., Ph.D., Professor of Economics

Carrel, William Joseph, C.E., Profe sor of Structural Engineering

Carson, George Barr, Jr., M.A., Ph.D., Assistant Professor of History

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; Reference Librarian, University Library

Caton, Stanley, B.S. in Agr., Field Agent in Poultry, Agricultural Extension Division

Chamberlain, Donald W., Ph.D., Assistant in Forage Crop Investigations, Department of Agronomy, Experiment Station

Chamberlain, Leo M., M.A., Ph.D., Dean of the University and Registrar

Chambers, Alvin Lee, C.E., Associate Professor of Testing Materials

Chambers, John Sharpe, M.S., M.D., Professor of Hygiene and Public Health, Head of the Department of Hygiene and Public Health; Director of University Health Service

Cheek, Frank Jacobs, A.B., C.E., M.S., Professor of Sanitary Engineering

*Chipman, Guy W., B.S., Colonel, U. S. Army, Professor of Military Science and Tactics, Head of the Department of Military Science and Tactics

*Church, William F., M.A., Ph.D., Assistant Professor of History

Clark, Carl McKinley, M.S., Assistant Professor of Markets and Rural Finance; Assistant in Markets, Experiment Station

Clark, Louise Swinford, A.B., Kindergarten, University School

*Clark, Thomas D., M.A., Ph.D., Professor of History, Head of the Department of History

Clifton, Louis, M.A., Director of University Extension, Professor in University Extension; Professor of Education

*Cohen, Leon Warren, M.A., Ph.D., Professor of Mathematics

Cole, Constance L., B.S., Instructor in Anatomy and Physiology

Conroy, Katherine, M.A., Sixth Grade, University School

*Cooper, Mary Hester, M.A., Part-time Instructor in Mathematics

Cooper, Thomas Poe, B.S. in Agr., D.Sc., LL.D., Dean, College of Agriculture and Home Economics; Director of Experiment Station; Director of Agricultural Extension Division

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* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

Copeland, Lynn, M.S., Field Agent in Dairying, Agricultural Extension Division

Crawford, Albert Byron, M.A., Ph.D., Assistant, Bureau of School Service

Crawley, Betty D., M.A., Instructor in Mathematics, 1944-45

Crawley, Clyde B., M.S., Ph.D., Associate Professor of Physics

Croft, Daisy Taylor, A.B., B.S., Head of the Circulation Department, University Library

*Croft, Lysle Warrick, M.A., Ph.D., Assistant Dean, 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

Crumpton, Charles R., B.S. in Chem. Engr., M.S., Instructor in Industrial Education

Cullis, Lela, Instructor in Applied Music (Organ)

Cundiff, Charlotte B., Seed Analyst, Experiment Station

Curnutt, Vivian Lee, M.A., Field Agent in Home Economics, Agricultural Extension Division

*Cutler, John Levi, M.A., Instructor in English

*Dantzler, Lehre Livingston, A.M., Litt.D., Professor of Philology; Head of the Department of English

*Davis, Anita Burnam, M.A., Field Agent in 4–H Club Work, Agricultural Extension Division

Davis, George Tansel, M.S., Acting Field Agent in Poultry Improvement, Agricultural Extension Division

Dawson, Lyle R., M.S., Ph.D., Professor of Chemistry, Head of the Department of Chemistry

Deen, Encil, B.S. in Agr., Seed Inspector, Experiment Station

Diachun, Stephen, M.S., Ph.D., Assistant Plant Pathologist, Department of Agronomy, Experiment Station

*Didlake, Mary LeGrand, M.S., Associate Entomologist and Botanist, Experiment Station

Dimock, William Wallace, D.V.M., Professor of Veterinary Science; Head of the Department of Animal Pathology, Experiment Station

*Dimmick, Graham, B., M.A., Ph.D., Professor of Psychology

*Doll, Edward B., M.S. in E.E., Ph.D., Associate Professor of Electrical Engineering

Doll, Elvis Roger, M.A., D.V.M., Assistant Pathologist, Department of Animal Pathology, Experiment Station

Donaldson, Fletcher W., M.A., Instructor in Mathematics

Donovan, Herman Lee, M.A., Ph.D., LL.D., President of the University

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* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

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

*Driver, Robert Lee, M.S., Ph.D., Assistant Professor of Anatomy and Physiology

Duggan, James E., First Lieutenant, U .S. Army, Assistant Professor of Military Science and Tactics

Duncan, May Kenney, M.A., Professor of Elementary Education, Head of the Department of Elementary Education

*Dupre, J. Huntley, M.A., Ph.D., Professor of History

*Eblen, Amos Hall, A.B., LL.B., S.J.D., Professor of Law

*Edelmann, Alexander, M.A., Ph.D., Assistant Professor of Political Science

*Edmonson, Wilmer Gordon, Staff Sergeant, U. S. Army, Instructor in Military Science

Edwards, Carl B., A.B., Instructor in Physical Education

Edwards, Philip Rarick, Ph.D., Bacteriologist, Department of Animal Pathology, Experiment Station

*Eggars, Louis W., Lieutenant Colonel, U. S. Army, Assistant Professor of Military Science

*Elliott, Jean Phillips, B.S. in H.E., Home Economics, University School

Elliott, Norris Raymond, B.S. in Hort., Professor of Landscape Architecture and Floriculture; Field Agent in Horticulture, Agricultural Extension Division

Ely, Fordyce, M.S., Ph.D., Professor of Dairy Husbandry; in charge of Dairy Section

Emmert, Emery Myers, M.S., Ph.D., Assistant Professor of Horticulture; Assistant in Horticulture, Experiment Station

Erickson, Statie Estelle, Ph.D., Professor of Home Economics; Head of the Department of Home Economics

Evans, Alvin E., M.A., Ph.D., J.D., Professor of Law; Dean of the College of Law

Fallis, Robert White, Assistant Bacteriologist, Public Service Laboratory, Experiment Station

*Farquhar, Edward Franklin, M.A., Professor of Literature

Farris, Elgan Brooks, C.E., Chief Engineer, Department of Maintenance and Operations; Part-time Associate Professor of Engineering

Fergus, Ernest Newton, M.S., Ph.D., Professor of Farm Crops; Agronomist in charge of Pastures and Forage Crops, Experiment Station

Fischer, Lydia Roberts, M.A., Instructor in Mathematics

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* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

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 Feed and Fertilizer Control, Experiment Station

*Foster, James Douglas, M.S. in Agr., 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. in Agr., Associate Agronomist; Superintendent of Experiment Station Farm

Freeman, Louise Barton, M.S., Ph.D., Part-time Assistant Professor of Geology

*Fried, Katharine Estelle, Seed Analyst, Experiment Station

Funkhouser, William Delbert, M.A., Ph.D., D.Sc., Professor of Zoology; Professor of Anthropology; Head of the Department of Zoology; Dean of the Graduate School

*Gallaway, William Francis, M.A., Ph.D., Professor of English

Galloway, Louise, A.B. in Ed., Part-time Instructor in Library Science; Librarian, University School

Gardner, John Samuel, M.A., Field Agent in Horticulture, Agricultural Extension Division

*Garman, Harrison, D.Sc., Professor of Entomology, Emeritus

Garrigus, Wesley Patterson, M.S., Ph.D., Professor of Animal Husbandry; in charge of Animal Husbandry Section; Chairman, Animal Industry Group

Garside, Matthew Stanley, B.S., Field Agent in 4–Club Work, Agricultural Extension Division

Gault, Lelah Vaughn, B.S., Assistant Chemist, Feed and Fertilizer Control, Experiment Station

Gifford, Chloe, A.B., LL.B., Assistant in University Extension

Gilb, Stella, A.B., B.P.E., M.A., Hygiene and Physical Education, University School

*Gilliam, Jane E., A.B., Instructor in Home Economics

Gillis, Ezra L, A.B., Director, Bureau of Source Materials in Higher Education

Ginger, Lyman, A.B. in Ed., M.A., Science, University School; Acting Director, University School

Ginocchio, Oleva L., Administrative Assistant, Experiment Station

Good, Edwin Stanton, M.S., Professor of Animal Husbandry, Emeritus

*Gormley, William, B.S., Instructor in Chemistry

Graddy, Ivan Clay, M.S. in Agr., Assistant State Agent, County Agent Work, Agricultural Extension Division

Graham, James Hiram, C.E., Dean of the College of Engineering

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* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

Greathouse, Gladys, M.A., Speech and Dramatics, University School

*Griffin, Robert J., A.B., M.D., Associate Professor of Hygiene; Physician in the Dispensary

Griffith, Robert Bell, B.S. in Agr., Assistant in Plant Physiology, Department of Agronomy, Experiment Station

Grillot, Gerald Francis, Ph.D., Assistant Professor of Chemistry

*Grundmeier, Edith, M.S., Assistant Professor of Home Economics

Gustafson, Richard O., B.S., M.F., Assistant Forester, Department of Farm Economics, Experiment Station

*Guy, Hollis Preston, M.A., Assistant Professor of Commerce

Guyn, Anne Young, A.B., Assistant in Circulation Department, University Library

*Haag, William George, Jr., M.S., Assistant Professor of Anthropology and Archaeology; Curator, Museum of Anthropology and Archaeology

Haak, Pearl Jones, B.S. in H.E., Field Agent in Home Economics, Agricultural Extension Division

Hackensmith, Charles William, M.A., Associate Professor of Physical Education; Acting Head of the Department of Physical Education

Hagman, Ida C., M.A., Field Agent in Home Economics, Agricultural Extension Division

*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

*Hamann, Cecil Boyce, M.S., Ph.D., Assistant Professor of Bacteriology

Hamilton, William Brooks, M.S., Ph.D., Associate Professor of Hygiene; Bacteriologist for University Health Service

Hammonds, Carsie, M.A. in Ed., Ph.D., Professor of Agricultural Education, Head of the Department of Agricultural Education

Hankins, Thomas L., M.S., Assistant Professor of Education, Acting Head of the Department of Industrial Education

Hanson, Mary Elizabeth, A.B., B.S. in L.S., Periodical Librarian, University Library

*Hardison, John Robert, M.S., Ph.D., Assistant in Forage Crops Investigations, Experiment Station

Harris, Charles Edgar, B.S. in Agr., Field Agent in Poultry; Agricultural Extension Division

*Harris, George Moreland, M.S. in Dairying, Field Agent in Dairying, Agricultural Extension Division

Harris, Leila Gott, A.B., Instructor in English

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* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

Harris, Odis Lee, A.B., Assistant in Vocational Education

Harrison, Lura Claude, A.B., M.T., (A.S.C.P.), Part-time Instructor in Bacteriology

*Hartford, Ellis Ford, M.A., D.Ed., Associate Professor of Education; Director, University School

Harvard, Gertrude J., A.B., Head Resident of Boyd Hall

Haselden, Jane, M.A., Ph.D., Part-time Assistant Professor of Romance Languages; Assistant Dean of Women

*Haun, Robert Dee, M.A., J.D., C.P.A., Professor of Accounting

Hawkins, Robert Dawson, M.E., M.S., Professor of Theoretical and Applied Mechanics

Heflin, Catherine P., A.B., Assistant in Rural Sociology, Experiment Station

Hegeman, Daniel V., Ph.D., Associate Professor of German, Acting Head of the Department of German Language and Literature 1944-45

Heinz, Wilbur August, M.S. in P.H., Associate Professor of Hygiene

Helton, Stella Elizabeth, M.S., Assistant Professor of Home Economics

Henry, Amanda Harms, B.S., Assistant in Animal Nutrition, Experiment Station

*Henson, Lawrence, M.S. in Agr., Assistant Agronomist in Forage Crops Investigations, Department of Agronomy, Experiment Station

*Hernandez, J. Eduardo, M.A., Ph.D., Associate Professor of Romance Languages

Hertenstein, Charles H., Captain Infantry U. S. Army, Associate Professor of Military Science and Tactics

Himes, Ralph Eugene, Sergeant, U. S. Army, Instructor in Military Science

*Holmes, Henry Bert, M.A., Ph.D., Assistant Professor of Romance Languages

Holmes, Sarah Bennett, M.A., Part-time Assistant Professor of Sociology; Dean of Women

*Hopkins, James Franklin, M.A., Instructor in History

Horine, John Sherman, M.E., Associate Professor of Engineering Drawing

Horlacher, Levi Jackson, M.S., Professor of Animal Husbandry; Assistant Dean in Resident Teaching, College of Agriculture and Home Economics

Hornbeck, Benn L., B.S.F., Junior Forester, Robinson Experiment Sub-station

Hornsby, Margery P., B.L.E., A.B., Head of the Order Department, University Library

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* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

*Horsfield, Margaret Bennett, M.A., Diplome d'Etudes Francaises de l'Universite de Montpelier, Assistant Professor of Romance Languages

Horton, Lewis Henry, M.A., Assistant Professor of Music

Howard, Noel Judson, B.S. in Agr., Inspector, Acting in charge Creamery License Section, Experiment Station

*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. in Agr., Field Agent in Poultry, Agricultural Extension Division

Humphreys, Margaret Bell, M.A., Business Education, University School

Humphries, James C., Ph.D., Assistant Professor of Bacteriology

Hunt, Russell Aubrey, M.S. in Agr., Field Agent in Tobacco, Agricultural Extension Division

Hurt, Florine, B.S., Field Agent in Home Economics, Agricultural Extension Division

Imlay, Florence, M.A., Field Agent in Home Economics, Agricultural Extension Division

Insko, Wyatt Marion, Jr., M.S. in Agr., Professor of Poultry Husbandry; in charge of Poultry Section

Irvine Donald, M.A., Instructor in English

Irvine, Kate Tipton, A.B., M.A., Assistant Reference Librarian, University Library

Isackes, Charles F., M.A., Visiting Lecturer, Department of Social Work, Winter and Spring Quarters, 1944-45.

Jackson, William Edward, Jr., B.S., in For., F. Engr., Field Agent in Forestry, Agricultural Extension Division

Jeffrey, Robert Newell, M.S., Ph.D., Plant Physiologist, Department of Agronomy, 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, Department of Agronomy, Experiment Station

Johnson, James Richard, B.M.E., Professor of Applied Mechanics, Emeritus

Johnson, Mary, A.B., Instructor in Physical Education

Johnson, Orinne, B.S., Assistant in Information, Agricultural Extension Division

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* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

Johnson, Ray S., Assistant Supervisor, Mechanical and Electrical Engineering Laboratories

Johnstone, William Clarkson, B.S. in Agr., Field Agent in Agronomy, Agricultural Extension Division

Johnston, William Glen, Colonel, U. S. Army, Professor of Military Science and Tactics, Head of the Department of Military Science and Tactics

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, Smith Jameson, B.S., Field Agent in farm Labor, 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

Josephson, Leonard Melvin, Ph.D., Assistant Agronomist, Experiment Station

Karraker, Perry Elmer, M.A., Professor of Soils; Agronomist in Soil Technology, Experiment Station

*Karsner, Milo G., M.A., Assistant Professor of Physical Education

Katterjohn, Catherine Lynn, A.B., B.S. in L.S., Assistant Cataloger, University Library

Kelley, James Byron, B.S. in A.E., B.S. in M.E., Professor of Agricultural Engineering; Agricultural Engineer, Experiment Station

Kelly, Jerry B., M.S., Science, University School

*Kemper, Durbin Collins, M.A., Science, University School

Kendall, Thomas Alexander, M.E., Research Analyst in Department of Mining and Metallurgical Engineering

Kenney, Ralph, B.S. in Agr., Field Agent in Agronomy, Agricultural Extension Division

Ketchum, Marshall D., M.S., Ph.D., Associate Professor of Economics

Kilpatrick, Elmer James, M.S. in Agr., Assistant State Agent, County Agent Work, Agricultural Extension Division

King, Helen Galvin, A.B., Assistant Director of Public Relations

King, Margaret Isadora, A.B., B.S., Part-time Instructor in Library Science; Acting Head of the Department of Library Science 1944-45; University Librarian

Kinker, Elmer O., Technical Sergeant, U. S. Army, Instructor in Military Science

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* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

Kinney, Edmund J., B.S. in Agr., Professor of Farm Crops; Head of the Department of Agronomy, Experiment Station

*Kirwan, Albert Dennis, A.B., Professor in Department of Athletics; Head Football Coach

Knapp, Charles Merriam, Ph.D., Professor of History

*Knight, Grant Cochran, M.A., Professor of English; "Distinguished Professor" for 1944-45

Koppius, Otto Townsend, Ph.D., Professor of Physics

*Kuhlman, Robert H., B.S. in Ed., Instructor in Applied Music (Voice)

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

Lamb, Frances R., M.S., Part-time Instructor in Chemistry

Lampert, Carl Albert, B.M., Professor of Music, Special Assignment

Land, Mary Rees, A.B., Assistant in University Extension

Lankford, Ann Elizabeth, A.B., Instructor in Physical Education

Latimer, Claiborne Green, M.S., Ph.D., Professor of Mathematics

Latimer, Ruth, B.S. in H.E., Field Agent in 4–H Club Work, Agricultural Extension Division

*Latzke, Verna, M.S., Assistant Professor of Home Economics

*Lawrence, Armon Jay, M.A., Ph.D., Associate Professor of Commerce and Education; Head of Department of Business Education (College of Education)

Lawrence, Chester, Assistant Inspector, Creamery License Section, Experiment Station

Layson, R. C., M.S., Instructor in Physics

LeStourgeon, Flora Elizabeth, M.A., Ph.D., Associate Professor of Mathematics

Lewis, Chester Arthur, B.J., Editor, Agricultural Extension Division

Lewis, Elisha B., M.S., Assistant Chemist, Department of Chemistry, Experiment Station

*Lewis, Mildred, B.S. in Music, M.A., Assistant Professor of Music

Lickert, Raymond Henry, B.S. in Agr., Assistant State Agent, County Agent Work, Agricultural Extension Division

Ligon, Moses Edward, M.A., LL.D., Professor of Secondary Education, Head of the Department of Secondary Education; Director of Placement Bureau

Ligon, William Scherffius, M.S., Ph.D., Associate Professor of Soils

*Lincicome, David R., M.S., Ph.D., Instructor in Zoology

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* See appended list of leaves of absence, resignations, deaths, etc. p. 347.

Link, Harold Forest, M.S. in Agr., Assistant State Agent, Agricultural Extension Division

Linville, Dorothy C., A.B., Admissions Officer, Office of the Registrar

Littell, Mary Lee, A.B., Seed Analyst, Experiment Station

Logan, Lulie Elizabeth, A.B., Assistant State Leader of Home Demonstration Agents, Agricultural Extension Division

*Logsdon, Richard H., Ph.D., Professor of Library Science, Head of the Department of Library Science

Lowry, Samuel Jechonias, B.S. in Agr., Superintendent Western Kentucky Experiment Sub-station

Lunde, Robert Gerhard, M.A., Assistant Professor of History

McCloy, Shelby T., Ph.D., Visiting Instructor in History 1944-45

*McConnell, Eugene Slagle, M.S. in Agr., Instructor in Poultry Husbandry; Assistant in Poultry, Experiment Station

McDaniel, Allice Marrs, A.B. in Ed., Seed Analyst, Experiment Station

McFarlan, Arthur Crane, Ph.D., Professor of Geology, Head of the Department of Geology

*McFarland, Frank T., M.S., Ph.D., Research Professor of Botany

*McGuire, Henry S., Jr., B.S. in Med. Tech., Assistant Bacteriologist, Public Service Laboratory, Experiment Station

McHargue, James Spencer, M.S., Ph.D., D.Sc., Chemist, Head of the Department of Chemistry, Experiment Station

McInteer, Berthus Boston, M.S., Ph.D., Associate Professor of Botany

*McIntyre, Robson Duncan, M.S. in Com., Professor of Marketing and Salesmanship

McKenney, Garnett Jennings, B.S. in Agr., Field Agent in 4–H Club Work, Agricultural Extension Division

McKitrick, John Leslie, B.S. in Agr., Field Agent in Agricultural Engineering and Soil Management, Agricultural Extension Division

*MacLaury, Donald Wayne, M.S., Assistant in Poultry and Genetics, Experiment Station

*McRight, Ralph, A.B., Instructor in the Department of Athletics; Assistant Football Coach

*McLaughlin, Marguerite, A.B., Assistant Professor of Journalism

McVey, Frank LeRond, Ph.D., LL.D., L.H.D., President Emeritus; Professor of Agricultural Economics

Magill, Wilbur William, B.S. in Agr., Field Agent in Horticulture, Agricultural Extension Division

Mahan, Charles Alfred, M.S., State Agent, Agricultural Extension Division

Mangelsen, Fred, Superintendent of Machine Shop

* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

*Manning, John Walker, M.A., Ph.D., Professor of Political Science; Director, Bureau of Government Research

*Markwell, Helen F., M.A., Instructor in Physical Education

Martin, Donald W., B.S. in Agr., Field Agent in Farm Labor, Agricultural Extension Division

Martin, Dorothy T., M.A., Instructor in Commerce

Martin, James Henderson, Ph.G., Assistant Chemist Emeritus, 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, Lela, M.A., Music, University School

Mathews, Robert, Inspector, Feed and Fertilizer Control, Experiment Station

Maxwell, E. S., M.D., Part-time Professor of Clinical Pathology

*May, Augustus 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

May, Mildred, B.S., Mathematics, University School

Meader, Arthur Lloyd, A.B., Assistant Chemist, Public Service Laboratories, Experiment Station

Meadow, Jacob R., M.A., Ph.D., Associate Professor of Chemistry, Director of Freshman Instruction

Meece, Leonard E., M.A., Ph.D., Associate Professor of Educational Administration

Melcher, Columbus Rudolph, M.A., LL.B., LL.D., Professor of German Language and Literature, Special Assignment

Mellenbruch, Parl L., M.A., Ph.D., Associate Professor of Psychology

*Mercer, Anne, A.B., Mathematics, University School

Meyer, Andre Johannes, B.S. in M.E., Director of Aeronautical Research Laboratory

*Miller, Harold Franklin, B.S. in Agr., Assistant in Agronomy, Experiment Station

Miller, Richard Clarence, M.S., Field Agent in Animal Husbandry, Agricultural Extension Division

Mitchell, John Richard, A.B., Assistant Professor of Chemistry

*Molloy, Jeanette Elliot Robinson, M.A., Fifth Grade, University School

Monical, Thelma, M.S. in Ed., Home Economics, Lafayette School

Monroe, Zelma, A.B., B.S., Assistant State Leader of Home Demonstration Agents, Agricultural Extension Division

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* See appended list of leaves of absence, resignations, deaths, etc., p. 332.

*Montgomery, Murray M., Jr., B.I.E., Captain, U. S. Army, Associate Professor of Military Science

Montgomery, W. C., B.S. in Agr., Agriculture, Lafayette School

*Moore, Henry Boian, M.B.A., Associate Professor of Economics

Moores, Maple, Assistant Registrar

Moran, Alice Barbara, B.S., Assistant Bacteriologist, Department of Animal Pathology, Experiment Station

Moreland, Roy, A.B., LL.B., J.D., S.J.D., Professor of Law

Morrison, Henry Bartlett, M.S., Ph.D., Associate Professor of Dairying; Assistant in Dairying, Experiment Station

Morton, Margaret, A.B., Seed Analyst, Experiment Station

*Moseley, Frank O'Rear, A.B. in Ed., Assistant Professor in the Department of Athletics; Assistant Football Coach

Muller, William A., M.A., Instructor in Zoology

Mumford, Mary, M.S., Assistant Professor of Home Economics

Murray, Frank, A.B., LL.B., S.J.D., Professor of Law

*Myers, Eugene, Captain, U. S. Army, A.B. in Ed., Associate Professor of Military Science; Freshman Football Coach

*Nelson, Vincent E., Ph.D., Associate Professor of Geology

*Nesius, Ernest Joseph, M.S. in Agr., Assistant in Farm Management, Experiment Station

Newbury, Edward, M.A., Assistant Professor of Psychology

Nicholls, William Durrett, M.S. in Agr., Ph.D., Professor of Farm Management, Head of the Department of Farm Economics

Noe, James Thomas Cotton, M.A., Litt.D., Professor of Education, Emeritus

Nollau, Louis Edward, M.E., Professor of Engineering Drawing

*Oakes, Rosalie, A.B., B.D., Executive Secretary, University Young Women's Christian Association

O'Bannon, Lester Severance, B.M.E., Research Engineer, Experiment Station

Odor, Anna F., Ph.D., Instructor in German

Olney, Albert Jackson, M.H., M.S., Professor of Horticulture, Head of the Department of Horticulture

*Osborn, Alta Marie, A.B. in Ed., Kindergarten Assistant, University School

*Palmer, Edgar Zavitz, Ph.D., Professor of Economics

*Pardue, Louis Arthur, M.S., Ph.D., Professor of Physics

*Parker, Evadine, B.S., Home Economics, Lafayette School

Parker, Ethel Lee, M.A., Ph.D., Professor of Home Economics Education, Head of the Department of Home Economics Education

Patterson, Mary J., M.A., Research Assistant, Bureau of School Service

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* See appended list of leaves of absence, resignations, deaths, etc. p. 332.

Patton, Herbert O., D.V.M., Assistant Veterinarian, Experiment Station

Pauls, Franklin B., M.A., Instructor in Physics

Peak, Bart Nixon, A.B., LL.B., Executive Secretary, Young Men's Christian Association

Peak, David Howard, LL.B., M.A., Business Agent, Emeritus

Peck, Anna Browning, M.A., Social Sciences, University School

Pence, Sallie Elizabeth, M.A., Ph.D., Assistant Professor of Mathematics

*Perez, Carmen, A.B. in Ed., Assistant in Spanish, University School

Peter, Alfred Meredith, M.S., D.Sc., Professor of Soil Technology, Emeritus

Peterson, Frank D., A.B., University Comptroller

Pfeffer, Marjorie, M.A., Instructor in Psychology, 1944-45

Phillips, Carroll Davidson, M.S., Ph.D., Assistant in Marketing, Experiment Station

Pifer, Raymond Woodrow, M.S. in Agr., Assistant Professor of Animal Husbandry; Assistant in Animal Husbandry, Experiment Station

Pinney, Paul, B.S., Assistant in Farm Management Studies, 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., Professor of Journalism, Head of the Department of Journalism

*Polk, Tasker Peter, D.V.S., Office Consultant, Department of Animal Pathology

Poole, Irma A., M.A., Director of Residence Halls for Women

Portmann, Victor Rowe, 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. in Agr., Field Agent in Farm Management; State Farm Labor Supervisor, Agricultural Extension Division

Price, Hugh Bruce, M.A., 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; State Entomologist

Proctor, Roy Estes, M.S. in Agr., Field Agent in Farm Management; Assistant State Farm Labor Supervisor, Agricultural Extension Division

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* See appended list of leaves of absence, resignations, deaths, etc., p. 332.

Pryor, Joseph William, M.D., Professor of Anatomy and Physiology, Special Assignment

Pryor, William M., Field Agent in Farm Labor, Agricultural Extension Division

*Quill, Laurence Larkin, M.S., Ph.D., Professor of Chemistry, Head of the Department of Chemistry

Quirke, Dorothy, A.B., Curator of Fossil Collection, Department of Geology

*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, Helen Caldwell, M.S., Home Economics, University School

Randle, Stacy Boyce, M.S., Ph.D., Chemist, Feed and Fertilizer Control, Experiment Station

*Rankin, Rome, M.A., Instructor in the Department of Athletics; Assistant Football Coach

*Rannells, Edward Warder, A.B., M.A., Professor of Art, Head of the Department of Art

Rapp, Karl, Jr., M.S. in Ind. Chem., Assistant Chemist, Experiment Station

*Ratliff, Margaret M., M.A., Ph.D., Associate Professor of Psychology

Reading, Carolyn, A.B., B.S., Gift and Exchange Assistant, Order Department, University Library

*Reeves, John Estill, M.A., Assistant Professor of Political Science

*Rhoads, Wayland, M.S., Field Agent in Animal Husbandry, Agri-Cultural Extension Division

*Richardson, John Shelby, B.Mus. M.M., Assistant Professor of Applied Music (Piano)

Riley, Herbert Parkes, M.A., Ph.D., Professor of Botany, Head of the Department of Botany

*Ringrose, Arthur T., Ph.D., Assistant Professor of Poultry Husbandry

Ritcher, Paul Osborn, M.A., Ph.D., Assistant Entomologist, Experiment Station

Roberts, George, M.S., Professor of Agronomy, Emeritus

Roberts, John Bissell, M.S. in Agr., Assistant in Markets, Experiment Station

*Roberts, William Lewis, M.A., J.D., S.J.D., Professor of Law

Robinson, Lolo Lemme, A.B., Assistant in Radio

Romanowitz, Harry Alex, E.E., M.S., Associate Professor of Electrical Engineering

*Rose, James Joseph, B.S. in Agr., Microscopist in Feed Control, Experiment Station

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* See appended list of leaves of absence, resignations, deaths, etc., p. 332.

Ross, Clay Campbell, M.A., Ph.D., Professor of Educational Psychology, Head of the Department of Educational Psychology

Rupp, Adolph F., M.A., Professor in the 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

Saunier, Stephen Thaddeus, Supervisor of Metallurgical Laboratory

*Sanders, Irwin T., Ph.D., Associate Professor of Sociology, Head of the Department of Sociology

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 Languages, Acting Head of the Department of Romance Languages, 1944-45

Schoeffler, Carolyn Louise, A.B. in Ed., 7th Grade University School

Scripture, Paul Newton, B.S., Assistant Chemist, Experiment Station

Schroeder, Jacob, M.S., Assistant Professor of Physics

Schwendeman, J. R., Ph.D., Professor of Geography, Head of the Department of Geography

*Scudder, Hazel, A.B., Part-time Instructor in History

Seay, Maurice F., M.A., Ph.D., LL.D., 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. in Agr., Field Agent in Animal Husbandry, Agricultural Extension Division

Server, Alberta Wilson, M.A., Docteur de l'Universite', Associate Professor of Romance Languages

*Shannon, Jasper Berry, M.A., Ph. D., Professor of Political Science

Shaver, Robert Ezekiel, C.E., Associate Professor of Civil Engineering

Shedd, Oliver March, M.S., Research Chemist, Experiment Station

*Sherwood, Henry Noble, M.A., Ph.D., LL.D., Assistant Bulletin Editor, Experiment Station and Agricultural Extension; Professor of Political Science (College of Arts and Sciences); Acting Head of Department of Political Science, Fall and Winter Quarters 1944-45

Shipman, Martha Virginia, M.A., Eighth Grade, University School

*Shively, Bernie Armstead, M.A., Professor in the Department of Athletics; Head Football Coach; Director of Intercollegiate Athletics

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* See appended list of leaves of absence, resignations, deaths, etc., p. 332.

Shrader, J. Aaron, M.S., Ph.D., Assistant Bacteriologist, Public Service Laboratories, Experiment Station

*Skaggs, Opal, M.S., Part-time Instructor in Anatomy and Physiology

Skinner, John Taylor, M.S., Ph.D., Assistant Chemist, Experiment Station

Slaughter, Susan, Records and Budgetary Assistant, Agricultural Extension Division

Smith, Bethania, M.S., Part-time Instructor in History

Smith, J. Allan, M.A., Ph.D., Bulletin Editor, Experiment Station and Extension Division

Sneed, Ruth, M.S., Instructor in Home Economics Education

Snodgrass, Grace L., A.B., Librarian, Experiment Station

*Snow, Charles E., M.A., Ph.D., Associate Professor of Anthropology and Archaeology

South, Dudley Eugene, M.A., Ph.D., Associate Professor of Mathematics and Astronomy

*South, Elizabeth E., M.A., Instructor in English

Spickard, Ronella, M.S., Professor of Home Economics Education

*Starnes, W. Gayle, M.A., Assistant Professor of Education, Assistant Director of University Extension

Steele, Dewey G., M.S., Ph.D., Professor of Genetics, Geneticist in charge Section of Genetics

Stephenson, Wendell Holmes, M.A., Ph.D., Professor of History

*Stewart, Olus Jesse, M.S., Ph.D., Professor of Chemistry

*Stivers, Robert L., B.S. in Com., Captain, U. S. Army, Associate Professor of Military Science

*Stout, Florence Offutt, Professor of Physical Education

*Strittmatter, Thomas Philip, Jr., D.V.M., Assistant Veterinarian, Experiment Station

Stutsman, Ellen Butler, A.B., M.S., Head of the Cataloging Department, University Library

Sullivan, Merrell Rodman, M.A., Ph.D., Associate Professor of Economics

Sulzer, Elmer Griffith, A.B., Director, Department of Public Relations

Summers, George Perry, M.S. in Agr., Field Agent in Marketing, Agricultural Extension Division

Sumner, Lottie E., M.S., Assistant Professor of Home Economics

Survant, William Gregory, B.S. in Agr., Field Agent in Soils, Agricultural Extension Division

Sutherland, William Robert, A.B., Assistant Professor of English

Tabb, William Roy, B.S. in Agr., M.S. in Ed., Instructor in Agricultural Education

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* See appended list of leaves of absence, resignations, deaths, etc., p. 332.

Taylor, Artie Lee, Librarian in Charge Reserved Book Room, University Library
Taylor, Rhea, M.A., Instructor in History
Taylor, William Septimus, M.S., Ph.D., LL.D., Professor of Education, Dean of the College of Education
*Templeton, William Chelcy, Jr., M.S., Instructor in Farm Crops
Terman, Gilbert L., Ph.D., Assistant in Agronomy, Experiment Station
Terrell, Daniel Voiers, C.E., Professor of Civil Engineering, Head of the Department of Civil Engineering; Assistant Dean of the College of Engineering
Terrell, Willis Granville, Inspector, Feed and Fertilizer Control, Experiment Station
Terry, George Sylvester, M.A., Bacteriologist, Public Service Laboratories, Experiment Station
*Thomas, Frank Carlton, A.B., M.D., Part-time Physician, University Health Service
Thomas, Ruth E., M.A., Ph.D., Assistant Professor of Commerce
*Thornton, Helen Knott, M.S., Assistant Professor of Bacteriology
Threlkeld, Dorothy Elizabeth, B.S. in H.E., Field Agent in Home Economics, Agricultural Extension Division
*Thurman, Gordon Owen, Supervisor of Mechanical and Electrical Engineering Laboratories
Tilson, Howard Gilbert, M.S. in Agr., Nursery Inspector, Department of Entomology and Botany, Experiment Station
Tittle, Maynard C., Technical Sergeant, U. S. Army, Instructor in Military Science
*Todd, Jarvis, M.A., Assistant Professor of Physics
*Tolman, William Allen, M.A., Assistant Professor of Economics
Townsend, Lee Hill, M.S., Ph.D., Associate Professor of Agricultural Entomology
*Trimble, Ernest Greene, Ph.D., Associate Professor of Political Science
*Trimble, Lois, M.A., Fifth Grade, University School
Triplett, Martha Mitchell, A.B. in Ed., Assistant, University School
Truitt, J. P., B.S., Agriculture, Lafayette High School
*Tucker, Willis Carleton, M.A., Associate Professor of Journalism
Turner, Job Darbin, B.Ped., LL.B., Head of the Department of Feed and Fertilizer Control, Experiment Station
Turner, Mildred S., A.B., Head Resident of Patterson Hall
*Tuthill, Edward, M.A., Ph.D., Professor of History, Head of the Department of History
Tuttle, Franklin Elliott, M.A., Ph.D., Professor of Chemistry, Special Assignment
Tuttle, Margaret Helmsing, A.B., B.S. in L.S., Librarian in Charge of Department Libraries, University Library

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* See appended list of leaves of absence, resignations, deaths, etc., p. 332.

Valleau, William Dorney, Ph.D., Professor of Plant Pathology, Department of Agronomy; Pathologist, Experiment Station

*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 Angus, M.S., Field Agent in Markets, Agricultural Extension Division

Wachs, Elizabeth, Technician in Animal Nutrition, Experiment Station

Wall, Bennett Harrison, M.A., Instructor in History

Walters, Alice, A.B., Assistant Analyst, Department of Agronomy, Experiment Station

Waltman, Clair Smith, M.S., Ph.D., Associate Professor of Horticulture; Assistant in Horticulture, Experiment Station

*Walton, Nell, B.S., First Grade, University School

Walton, Sylvan Brooks, M.S., Associate Professor of Mechanical Engineering

Warburton, F. W., Ph.D., Associate Professor of Physics

Ward, William Smith, M.A., Ph.D., Assistant Professor of English

*Warren, Margaret, A.B., M.A. in Ed., Instructor in Physical Education

Watson, James A., B.S., Technical Sergeant, U. S. Army, Instructor in Military Science

Watters, James I., Ph.D., Assistant Professor of Chemistry

Weaver, Ralph Holder, M.S., Ph.D., Professor of Bacteriology

Webb, Louise Gray, Librarian, College of Engineering

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 Agronomist, Experiment Station

Welch, Earl George, B.S., in Agr., Field Agent in Agricultural Engineering, Agricultural Extension Division

Weldon, Myrtle, M.A., State Leader of Home Demonstration Agents, Agricultural Extension Division

Wender, Simon Harold, M.S., Ph.D., Assistant Professor of Chemistry

*West, Mary Lucille, M. A., Languages, University School

West, Mary G., A.B., Assistant Bacteriologist, Department of Animal Pathology, Experiment Station

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* See appended list of leaves of absence, resignations, deaths, etc., p. 332.

*West, Perry, M.E., Professor of Steam and Power Engineering; Head of the Department of Mechanical Engineering; Operating Consultant on Central Heating Plant and Steam Distribution System

Westerfield, Clifford, M.S., D.V.M., Associate Animal Pathologist, Experiment Station

Wetzel, Harold E., M. A., Professor of Social Work, Head of the Department of Social Work

Wheeler, Boyd E., B.S., Field Agent in 4-H Club Work, Agricultural Extension Division

*Whitaker, Paul Knowlton, M.A., Ph.D., Assistant Professor of German

White, Helen McMichael, B.S., Assistant State Leader of Home Demonstration Agents, Agricultural Extension Division

White, Martin Marshall, M.A., Ph.D., Professor of Psychology, Head of the Department of Psychology; Associate Dean of the College of Arts and Sciences; Executive Secretary of Personnel Office

Whitehouse, James William, M.S. in Agr., 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

Wightman, Ernest T., M.S., Assistant Professor of Poultry Husbandry; Assistant in Poultry Husbandry, Experiment Station

Wilford, Edward James, M.S. in Agr., Professor of Animal Husbandry in charge of Meats Laboratory; Assistant in Animal Husbandry, Experiment Station

Wilmore, Helen, M.S. in H.E., Assistant Professor of Home Economics

Willson, Louise, M.A., Third Grade, University School

Wilson, Goldie M., A.B., Part-time Instructor in Commerce

Wilson, Jessie, M.A., Recorder, Office of the Registrar

Wilson, William Clark, B.S. in Agr., Assistant State Agent, County Agent Work, Agricultural Extension Division

*Wofford, Azile May, M.S., Associate Professor of Library Science

Wood, Julia Clarke, B.S. in H.E., Assistant Analyst, Department of Agronomy, Experiment Station

*Woods, Ralph Hicks, M.A., Ph.D., Professor of Agricultural Education

Wooldridge, Mary Terrell, M.S., Instructor in Home Economics

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* See appended list of leaves of absence, resignations, deaths, etc., p. 332.

Wyant, Zae, M.H.E., A.M., Technician, Department of Animal Pathology, Experiment Station

*Wyatt, Charles Early, B.S. in Agr., Field Agents in Test Demonstrations, Agricultural Extension Division

Young, David Marion, M.S., Assistant Professor of Geology, Curator of Museum

Young, Earl Robert, M.S. in Agr. Engr., Associate Professor of Agricultural Engineering

Zemp, Gertrude M., Manager of Residence Halls for Women

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* See appended list of leaves of absence, resignations, deaths, etc., p. 332.

LEAVES OF ABSENCE, RESIGNATIONS, DEATHS, AND OTHER CHANGES IN STATUS AFFECTING MEMBERS OF THE ACADEMIC AND ADMINISTRATIVE STAFF

1944-45

Adams, Esther N., Resigned March 1, 1945
Adams, Jesse Earl, Died March 9, 1945
Allbritten, Herbert Graves, Resigned May 31, 1944
Asher, Eston Jackson, Resigned June 30, 1945
Astle, Melvin J., Resigned July 1, 1944
Bailey, Lowell F., Resigned July 24, 1944
Baker, K. Y., Transferred by War Department May 1, 1944
Balzola, Huguette, Resigned December 15, 1944
Bardwell, J. L., Transferred by War Department May 8, 1944
Barnhart, C. Raymond, On leave Second Term of the Summer Quarter, 1944
Beaumont, Henry, On leave Second Term of the Summer Quarter, 1944
Beazley, James Allen, Resigned August 14, 1944
Bedford, Matthew Hume, Died February 3, 1945
Beiter, Jean Sandell, Resigned July 5, 1944
Bekker, Konrad, Military leave
Best, Harry, On leave Second Term of the Summer Quarter, 1944
Betz, Albert Leslie, Military leave
Bigge, Adolph Edmund, On leave 1944-45
Bortner, Charles Eugene, Military leave
Boyd, G. Robert, Transferred to Comptroller's Office October 6, 1944
Branson, Carl C., Military leave
Brewer, Boltos Elder, Resigned September 1, 1944
Briggs, Wallace, Transferred to the Department of English July 1, 1944
Brown, Ernest Benton, Military leave
Bruner, Dorsey William, Military leave
Bull, Jacqueline Page, On leave 1944-45
Callihan, Anne Worthington, On leave Second Term of the Summer Quarter, 1944
Capurso, Alexander Alexis, Head of the Department of Music effective July 1, 1944
Carpenter, Cecil C., On leave for the emergency

Cass, Norma Beatrice, Resigned as Assistant Professor of Library Science July 1, 1944
Chipman, Guy W., Resigned April 3, 1945
Clark, Thomas D., Head of the Department of History effective July 1, 1945
Cohen, Leon Warren, On leave 1944-45
Cooper, Mary Hester, Work terminated April 1, 1944
Croft, Lysle Warrick, Military leave
Cutler, John Levi, On leave Second Term of the Summer Quarter, 1944
Dantzler, Lehre Livingston, On leave Second Term of the Summer Quarter, 1944
Davis, Anita Burnam, Resigned October 23, 1944
Didlake, Mary LeGrand, Emeritus July 1, 1944
Dimmick, Graham B., On leave Second Term of the Summer Quarter, 1944
Doll, Edward B., On leave 1944-45
Driver, Robert Lee, Military leave
Dupre, J. Huntley, Resigned September 1, 1944
Eblen, Amos Hall, Military leave
Edelmann, Alexander, Military leave
Edmonson, Wilmer Gordon, Transferred by War Department January 10, 1944
Eggars, Louis W., Transferred by War Department January 8, 1945
Elliott, Jean Phillips, Resigned July 1, 1944
Farquhar, Edward Franklin, On leave Second Term of the Summer Quarter, 1944, Winter and Spring Quarters, 1944-45
Fisk, Edward W., Died October 8, 1944
Foster, James Douglas, Military leave
Fowler, Frank Charles, On leave 1944-45
Fried, Katharine Estelle, Resigned August 15, 1944
Gallaway, William Francis, Died June 8, 1945.
Garman, Harrison, Died August 7, 1944
Gilliam, Jane E., Appointment from October 2, 1944 to June 2, 1945
Gormley, William, Resigned August 1, 1944
Griffin, Robert J., Military leave
Grundmeier, Edith, Resigned September 24, 1944
Guy, Hollis Preston, Military leave
Haag, William George, Jr., Military leave
Hahn, Thomas Marshall, Military leave
Hall, Ellery Lewis, Died October 8, 1944
Hamann, Cecil Boyce, Resigned September 1, 1944
Hardison, John Robert, Resigned September 27, 1944
Harris, George Moreland, Military leave
Hartford, Ellis Ford, Military leave
Haun, Robert Dee, On leave for the emergency

Henson, Lawrence, Military leave
Hernandez, J. Eduardo, Military leave
Holmes, Henry Bert, On leave Summer Quarter, 1944 and 1944-45
Hopkins, James Franklin, Military leave
Horsfield, Margaret Bennett, On leave Second Term of the Summer Quarter, 1944
Huddleston, Joseph Jenkins, Military leave
John, Fritz, On leave for the emergency
Karsner, Milo G., Military leave
Kemper, Durbin Collins, Military leave
Kirwan, Albert Dennis, Position as Head Football Coach terminated February 9, 1944; On leave 1945-46
Knight, Grant Cochran, On leave Second Term of the Summer Quarter, 1944
Kuhlman, Robert H., On leave First Term of the Summer Quarter, 1944
Kurachek, Peter William, Military leave
Latzke, Verna, Military leave
Lawrence, Armon Jay, On leave Second Term of the Summer Quarter, 1944
Lewis, Mildred, On leave Second Term of the Summer Quarter, 1944
Lincicome, David R., Military leave
Logsdon, Richard H., Military leave
McConnell, Eugene Slagle, Resigned April 10, 1944
McFarland, Frank T., On leave Second Term of the Summer Quarter, 1944
McGuire, Henry S., Military leave
McIntyre, Robson Duncan, Military leave
McLaughlin, Marguerite, On leave Second Term of the Summer Quarter, 1944
McRight, Ralph, Military leave
MacLaury, Donald Wayne, On leave for the emergency
Manning, John Walker, Military leave
Markwell, Helen F., Resigned May 15, 1945
Mason, Lela, Resigned June 30, 1945
May, Augustus Noah, Died September 21, 1944
May, James Warren, On leave 1944-45
Mercer, Anne, Resigned July 1, 1944
Miller, Harold Franklin, Military leave
Molloy, Jeannette Elliot Robinson, Transferred to the Bureau of School Service September 1, 1944
Montgomery, Murray M., Jr., Transferred by the War Department, May 6, 1944
Moore, Henry Boian, On leave for the emergency
Moseley, Frank O'Rear, Military leave
Myers, Eugene, Transferred by the War Department April 1, 1944

Nelson, Vincent E., On leave 1944-45
Nesius, Ernest Joseph, Military leave
Oakes, Rosalie, Resigned June 30, 1945
Osborn, Alta Marie, Resigned June 1, 1944
Palmer Edgar Zavitz, On leave half-time for work in the State Department of Revenue, 1944-45
Pardue, Louis Arthur, On leave for the emergency
Parker, Evadine, Resigned September 1, 1944
Perez, Carmen, Resigned June 1, 1944
Pfeffer, Marjorie, Employed for Winter and Spring. Quarters, 1944-45
Pinney, Oliver H., On leave 1944-1945
Pittman, William Henry, On leave for the emergency
Polk, Tasker Peter, Died April 22, 1945
Potter, Merwin Elwood, Military leave
Quill, Laurence Larkin, On leave for the Summer Quarter, 1944; Resigned January 1, 1945
Ramsay, Bertrand Pettus, On leave 1944-45
Randle, Helen Caldwell, Resigned July 1, 1942
Rannells, Edward Warder, On leave Second Term of the Summer Quarter, 1944
Ratliff, Margaret M., On leave Second Term of the Summer Quarter, 1944; Winter and Spring Quarters, 1944-45
Reeves, John Estill, On leave Summer Quarter, 1944, Fall and Winter Quarters, 1944-45
Rhoads, Wayland, Military leave
Richardson, John Shelby, On leave Second Term of the Summer Quarter, 1944
Ringrose, Arthur T., Military leave
Roberts, William Lewis, On leave for the emergency
Rankin, Rome, Resigned August 1, 1944
Rose, James Joseph, Resigned October 31, 1944
Ryland, Hobart, Military leave
Sanders, Irwin T., On leave Summer Quarter, 1944; On leave from April 1, 1945 to April 1, 1946
Scudder, Hazel, Work terminated June 1, 1944
Sellards, Henry Grady, Military leave
Shannon, Jasper Berry, On leave 1944-45
Sherwood, Henry Noble, Resigned April 11, 1945
Shively, Bernie Armstead, Head Football Coach effective February 9, 1945
Skaggs, Opal, Resigned July 1, 1944
Snow, Charles E., On leave Winter and Spring Quarters, 1944-45 and 1945-46
South, Elizabeth E., Resigned July 1, 1944
Starnes, W. Gayle, Military leave

Stewart, Olus Jesse, On leave Second Term of the Summer Quarter, 1944
Stivers, Robert L., Transferred May 15, 1945
Stout, Florence Offutt, Special Assignment July 1, 1944
Strittmatter, Thomas Philip, Jr., Resigned February 29, 1944
Templeton, William Chelcy, Jr., Military leave
Thomas, Frank Carlton, Died December 2, 1944
Thornton, Helen Knott, Resigned December 31, 1944
Thurman, Gordon Owen, Died November 6, 1944
Todd, Jarvis, Military leave
Tolman, William Allen, On leave for the emergency
Trimble, Ernest Green, on leave 1944-45
Trimble, Lois, Resigned July 1, 1944
Tucker, Willis Carleton, On leave Summer Quarter, 1944
Tuthill, Edward, Special Assignment July 1, 1945
Vandenbosch, Amry, On leave Summer Quarter, 1944; Fall and Winter Quarters, 1944-1945
Walton, Nell, Resigned September 1, 1944
Warren, Margaret, Resigned April 15, 1944
West, Mary Lucille, On leave Summer Quarter, 1944
West, Perry, Died April 2, 1945
Whitaker, Paul Knowlton, Military leave
Wofford, Azile, On leave Second Term of the Summer Quarter, 1944
Woods, Ralph Hicks, On leave 1944-45
Wyatt, Charles Early, Military leave

OFFICE ORGANIZATION AND PERSONNEL

OFFICE OF THE PRESIDENT

Herman Lee Donovan, M.A., Ph.D., LL.D., President of the University

Jane Jarvis Nichols, Secretary

Lucy Roberta Hogan, A.B., Assistant Secretary

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Elizabeth Hunt, A.B., Secretary

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Martin Marshall White, M.A., Ph.D., Associate Dean

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Idie Lee Turner, B.S., Secretary

Willena Duncan Long, Assistant Secretary

Mary Elizabeth Doyle, A.B., Secretary to the Associate Dean

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Laura Graham Cutler, Part-time Secretary, Department of English

*Okla Bradley Doll, Part-time Secretary, Department of Art

Mary Anne Dunne, A.B., Secretary, Department of Military Science

Marjorie Freeman, Part-time Secretary, Department of Psychology

Constance W. Gallant, Secretary, Department of Chemistry

*Marjorie Garland, Secretary, Department of Bacteriology

*Jeannette Graves, A.B., Secretary, Department of Sociology

Eileen Sullivan Hillenmeyer, Part-time Secretary, Departments of Sociology and Geography

Christine Lancaster, A.B., Secretary, Department of Political Science

W. Lee McDaniel, Military Storekeeper

Betty Matlack, Secretary, Department of Physical Education

Willie Prater Mills, Acting Secretary, Department of Music, January 1 to July 1, 1944. Librarian, Carnegie Record Set, 1944-45

Katherine W. Owens, Secretary, Department of Hygiene and Public Health

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* See appended list of leaves of absence, resignations, deaths, etc. p. 347.

Louise M. Railey, Secretary, Department of Bacteriology
Juanita H. Shely, A.B. in Ed., Secretary, Department of Physics
Frances C. Smith, A.B., Secretary, Department of Social Work
Mary Louise Wallace, A.B., Librarian-Secretary, Department of Library Science
Anna Jane Warren, Secretary, Department of History
Irene Waters, Secretary, Department of Music
*Julia Ann Waters, A.B., Secretary, Departments of Geography and Sociology

COLLEGE OF AGRICULTURE AND HOME ECONOMICS, EXPERIMENT STATION, AND EXTENSION DIVISION

Thomas Poe Cooper, B.S. in Agr., D.Sc., LL.D, Dean and Director
Levi Jackson Horlacher, M.S., Assistant Dean in Resident Teaching
Thomson Ripley Bryant, M.S., Assistant Director of Agricultural Extension
Oleva L. Ginocchio, Assistant in Administration, Experiment Station
Susan Kidd Slaughter, Records and Budgetary Assistant, Agricultural Extension Division
Elizabeth Sloan, A.B., Secretary, Office of the Dean
*Coleman Rogers Smith, B.S. in Com., Accountant

Clerical Staff, Teaching, Experiment Station, and Extension

V. Maewood Alsop, B.S. in Com.
*Janet Argent
Frances Ray Arnold
*Violette Aswerus, A.B. in Ed.
Dora Baker
Adeleen Gilbert Bangs
*Dorothy Watkins Barkley, A.B.
Katherine Bascom
Marguerite Berry
*Catherine Bogan, A.B.
Lucille Bush
*Ethel Byron
Sophia Campbell
Florence G. Carney
Ethel V. T. Caswell
Jessie Frazer Caswell
Frances Cook
Betty Cotton
Nettie C. Croghan
Eudell Jones Curtis
Beatrice F. Deaton
*May Christian Dedman, B.S. in Com.
Ruth O. Deeringer
Alvis Derrickson
Mary Dolan
Anna Mae Duncan
Pauline Elliston
Virginia E. Faulconer
*Myra Gentry, A.B. in Ed.
Lucille Graves
Betty C. Grayson
Mary Lou Guyn
Gertrude Elizabeth Hanley
Grace Hardman
*Mary Hart Harned
Helen Hayes
Alma Henry
Wynona Hudson
Sarah G. Hutchinson
Grace Jones
Ruth Kelley, A.B.

* See appended list of leaves of absence, resignations, deaths, etc., p. 347.

Nellie Mae Lawrence
*Mardelle Lehnig
Mildred E. McCarty, B.S. in Com.
*Frances F. McCourt
Edna Brumagen Marrs, A.B. in Ed.
Roxie Robinson Mathews
Marietta Gerard Meeks
Fannie Bush Merritt
Josephine Mitchell, A.B.
Margaret Gentry Morris
Ruby E. Morrow
*Margaret Neel
Peggy Oliver
Frances Pennebaker
*Ione White Ramey
Frances Ramsey
Mattie Ramsey
Nancy J. Ratliff
Dorothy Rice
Mary K. Robinson, A.B. in Ed.
*Elizabeth Wyatt Rouse
Margaret C. Ryan
Ruth Sallee
Virginia Singleton
William A. Stalnaker
Mary E. Stilwell
Frances Stivers
Erma Taylor
Flora G. Taylor
Evazona J. Thomas
Nell H. Turner
Betty Jean Tuttle
Mary Bronston Utterback
Anna Wallis, A.B.
Violette Shankland Weaver
Ethel Louise Welch
*Elizabeth Wells
May Wheat
Luzelle Penley Williams, A.B.

COLLEGE OF ENGINEERING

James Hiram Graham, C.E., Dean
Daniel Voiers Terrell, C.E., Assistant Dean
Ethel Jelley, Secretary
Helen Louise Trapp, Clerk-Stenographer
Cecil Bertram, Clerk-Stenographer
*Beatrice R. Skidmore, Secretary to the Assistant Dean

Bureau of Engineering Research and Development

James Hiram Graham, C.E., Director
Charles Stevens Crouse, E.M., Chairman

Aeronautical Research Laboratory

Andre Johannes Meyer, B.S. in M.E., Director
Willis Merle Carter, B.S. in M.E., Designing Engineer
Robert Gerald Beavers, B.S. in M.E., Research Engineer
Robert W. Spicer, B.S. in M.E., Accountant
George Robert Hall, Laboratory Supervisor

Coal Research, Metallurgical, and Ore Dressing Laboratories

Charles Stevens Crouse, E.M., Director
Harry Comer Wolfe, Consulting Engineer
Francis Joseph Trapp, Supervisor
Robert Witt, Jr., Assistant Supervisor
Douglas Winn Cox, Laboratory Technician

* See appended list of leaves of absence, resignations, deaths, etc., p. 347.

Highway Research Laboratory

James Stephen Watkins, C.E., Commissioner of Highways
Thomas Henry Cutler, C.E., State Highway Engineer
Daniel Voiers Terrell, C.E., Director
Curtis Cantrill, Principal Highway Engineer
Smith Thomas Collier, B.S. in C.E., Highway Engineer

COLLEGE OF LAW

Alvin E. Evans, M.A., Ph.D., J.D., Dean
Margaret Dorothy Salmon, B.S. in Com., LL.B., Secretary
Rosanna A. Blake, M.A., Assistant Librarian

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William Septimus Taylor, M.S., Ph.D., Dean
Anne Lewis Wilson, B.S. in Com., Secretary
*Helen Jane Truby, Assistant Secretary
Helen Lucille Coughlin, Assistant Secretary

Cassie Pace Bobbitt, Secretary, Bureau of School Service
Lois Allen Duncan, A.B. in Ed., Secretary, Agricultural Education
*Marjorie Geary, Secretary, Agricultural Education and Distributive Occupations Education
*Vera Wood Gillespie, A.B., Secretary, Agricultural Education
Willa Belle Hamilton, B.S. in Com., Secretary, Home Economics Education
Ruthe Maxedon Henderson, A.B., Assistant Secretary, Bureau of School Service
Katherine Hammack Kemper, A.B., Secretary, Placement Bureau
Florence Landrum, Part-time Secretary, Elementary Education
Mary Louise Reece, A.B. in Ed., Secretary, Industrial Education and Distributive Occupations Education
Betsy Roach, A.B., Secretary, University School
Maurene Rose, Secretary, Department of Business Education
*Barbara Shipp, Secretary, Industrial Education and Distributive Occupations Education
Billy Whitlow Smith, A.B., Secretary, Educational Psychology and Philosophy of Education
Mary Margaret Sullivan, Secretary, Agricultural Education
Ethel Welborn, Secretary, Agricultural Education

COLLEGE OF COMMERCE

Edward Wiest, M.A., Ph.D., Dean
Jane Earle Middelton, A.B., Secretary
*Claire C. Herndon, A.B., Secretary, Bureau of Business Research
Claudine Mullinaux, Secretary, Bureau of Business Research
Amanda Carolyn Miller, Secretarial Assistant

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* See appended list of leaves of absence, resignations, deaths, etc., p. 347.

THE GRADUATE SCHOOL

William Delbert Funkhouser, M.A., Ph.D., D.Sc., Dean
Queenie Morrow Grable, M.A., Secretary

DEPARTMENT OF UNIVERSITY EXTENSION

Louis Clifton, M.A., Director
*W. Gayle Starnes, M.A., Assistant Director
Chloe Gifford, A.B., LL.B., Assistant in University Extension
Maude Ward Lafferty, Secretary, Women's Club Service, Emeritus
Mildred S. Lewis, B.S. in Mus., M.A., Assistant in University Extension
Effie Cox Starnes, M.A., Instructor
Eva Frances Downing, A.B., Bookkeeper
Mary Rees Land, A.B., Assistant in University Extension
Bethel Chase Lipps, Secretary
Mary Ethel Denniston, Secretary
Edith Murrell Fleming, A.B., Secretary
John Dicker, Projectionist
Jemima C. Harris, Film Technician
*Frances C. Smith, Secretary

OFFICE OF THE DEAN OF MEN

Theodore Tolman Jones, M.A., Ph.D., Dean of Men
Bush Allen Gorman, Secretary

OFFICE OF THE DEAN OF WOMEN

Sarah Bennett Holmes, M.A., Dean of Women
Jane Haselden, Ph.D., Assistant Dean of Women
*Anita Gardner, Assistant to the Dean of Women
*Margaret O'Connell, A.B., Secretary
Dorothy Hillenmeyer Evans, A.B., Social Director

OFFICE OF THE REGISTRAR

Leo M. Chamberlain, M.A., Ph.D., Registrar
Maple Moores, Assistant Registrar
Dorothy C. Linville, A.B., Admissions Officer
Jessie Wilson, M.A., Recorder
Bessie Ora Cleveland, Transcript Clerk
Ruth Trumbo, Clerk-Stenographer
Sarah Utterback, M.A., Statistical Clerk
Lucille Hope Newton, A.B., Assistant Recorder
Evelyn Merrell Talbott, A.B., Clerk
*Margaret O'Connell, A.B., Stenographer

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* See appended list of leaves of absence, resignations, deaths, etc., p. 347.

LIBRARIES

Margaret Isadora King, A.B., B.S., University Librarian
Bessie M. Boughton, A.B., B.S., First Assistant Cataloger
*Jacqueline Page Bull, A.B., Head of Archieves Department
Norma Beatrice Cass, B.S., M.A. in L.S., Reference Librarian
Daisy Taylor Croft, A.B., B.S., Head of Circulation Department
Louise Galloway, A.B. in Ed., Librarian, University School Library
Anne Young Guyn, A.B., Assistant in 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
Kate Tipton Irvine, A.B., M.A., Assistant Reference Librarian
Catherine Lynn Katterjohn, A.B., B.S. in L.S., Assistant Cataloger
Carolyn Reading, A.B., B.S., Gift and Exchange Assistant, Order Department
*Juanita C. Moberly, A.B., Assistant in Cataloging
Grace L. Snodgrass, A.B., Librarian, Experiment Station
Ellen Butler Stutsman, A.B., M.S., Head of Cataloging Department
Artie Lee Taylor, Librarian in charge of Reserved Book Room
Margaret Helmsing Tuttle, A.B., B.S. in L.S., Librarian in charge of Department Libraries
*Emma Jane Walker, B.S. in Com., Assistant, half-time, Order Department
*Angeline Jett Williams, A.B., Assistant Cataloger
Austell Beaton, Clerk, Order Department
*Margaret W. Erskine, Secretary, half-time
*Juanita Warren, Secretary, half-time

UNIVERSITY HEALTH SERVICE

John Sharpe Chambers, M.S., M.D., Director
Charles McChord, M.S., M.D., Physician
George Fergison Doyle, A.B., M.D., F.A.C.S., Physician
Walter Frey, M.D., Physician
*Robert J. Griffin, A.B., M.D., Associate Professor of Hygiene and Public Health
*F. Carlton Thomas, A.B., M.D., Physician
Charles D. Cawood, M.D., C.P.H., Assistant Professor of Hygiene and Public Health
*Oliver H. Pinney, M.D., Associate Professor of Hygiene and Physician
W. Brooks Hamilton, M.S., Ph.D., Bacteriologist, Associate Professor of Hygiene and Public Health
Wilbur A. Heinz, M.S. in P.H., Associate Professor of Hygiene and Public Health
Katherine W. Owens, Secretary
*Mildred S. Turner, Receptionist

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* See appended list of leaves of absence, resignations, deaths, etc., p. 347.

Vivian Combs Morris, Receptionist and Clerk
A. Ed. Crowe, Technician
Esther Montgomery, Registered Nurse
Helen Crews, Registered Nurse
Jane Neikirk, Registered Nurse
Ruth Harper, Registered Nurse
*Ann Lee Brown, Registered Nurse
*Helen Dicken, Registered Nurse

UNIVERSITY Y. M. C. A.

Bart Nixon Peak, A.B., LL.B., Secretary
Martha Huber, Assistant

UNIVERSITY Y. W. C. A.

*Rosalie Oakes, A.B., B.D., Secretary
Dorothy Collins, B.S., Acting Secretary

RESIDENCE HALLS FOR WOMEN

Irma A. Poole, M.A., Director of Residence Halls for Women, Head Resident for Jewell Hall
*Adelle S. Gensemer Dailey, A.B., Acting Director of Residence Halls for Women
Marguerite Arnold, M.A., Director of Residence Halls for Women (Summer Quarter, 1944)
Mildred S. Turner, A.B., Head Resident for Patterson Hall
Gertrude J. Harvard, A.B., Head Resident for Boyd Hall
Catherine A. Spaulding, Head Resident for Lydia Brown House
Myrtle Morgan, Head Resident for Sigma Nu House
Nancy Gene Smith, Head Resident for McDowell House
Gertrude M. Zemp, Manager
*Elizabeth Taylor, B.S. in H.E., Manager
Louise Harned Lund, Assistant Manager
Eugenia Williamson, Postmaster
Sarah McCormack, A.B., Secretary-Bookkeeper
Edith Reis Potts, Housekeeper
Birdie Holman, Storeroom Clerk

House Directors for Sorority and Cooperative Houses

Zoa H. Hale, Alpha Delta Pi House
Nancy Pope Hagan, Alpha Gamma Delta House
Jennie W. Hughes, Alpha Xi Delta House
Fanniebelle Bogie, Chi Omega House
Frankie Lee, Delta Delta Delta House
Lily May Pryor Hancock, Kappa Delta House

* See appended list of leaves of absence, resignations, deaths, etc., p. 347.

Verna Henderson, Kappa Kappa Gamma House
Elleene Glover, Zeta Tau Alpha House
Lillian Caldwell, Shelby House
Betty Henry, Hamilton House

RESIDENCE HALLS FOR MEN

William Smith Ward, M.A., Ph.D., Supervisor
Margaret Byrn Ward, Hostess

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Martin Marshall White, M.A., Ph.D., Acting Director
*Lysle Warrick Croft, M.A., Ph.D., Executive Secretary
Elizabeth Doyle, A.B., Secretary
*Anne Connor Ensminger, A.B., Clerk
*Margaret Newell, Clerk

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Lolo L. Robinson, A.B., Program Supervisor, Radio Studios

DEPARTMENT OF ATHLETICS

*Bernie Armstead Shively, M.A., Director of Intercollegiate Athletics, Head Football Coach
Adolph F. Rupp, M.A., Head Basketball Coach
*Albert D. Kirwan, A.B., Head Football Coach
*Ralph McRight, A.B., Assistant Football Coach
*Frank O'Rear Moseley, A.B. in Ed., Assistant Football Coach
*Eugene Myers, A.B. in Ed., Freshman Football Coach
*Rome Rankin, M.A., Assistant Football Coach
Lew Bostick, B.S. in Com., Assistant Football Coach
Harold Hardesty Downing, M.A., Ph.D., Tennis Coach
Stanley Atwood Boles, M.A., Ticket Manager
Helen M. Shober, Secretary
Frank Mann, Athletic Trainer

BUREAU OF SOURCE MATERIALS IN HIGHER EDUCATION

Ezra L Gillis, A.B., Director
Mary Hester Cooper, M.A., Assistant
Mary Scully, Clerk

ALUMNI ASSOCIATION

Marguerite McLaughlin, A.B., Secretary
*Ethel Smoot Rix, A.B. in Ed., Assistant Secretary
*Jeanette Graves, A.B., Assistant Secretary
*Lucille Smoot, Acting Assistant Secretary

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* See appended list of leaves of absence, resignations, deaths, etc., p. 347.

OFFICE OF COMPTROLLER

Frank D. Peterson, A.B., University Comptroller
David Howard Peak, LL.B., M.A., Business Agent Emeritus
*Elizabeth V. Dennis, Secretary
*Ena Sellman, Secretary.

Accounting Division

*Jess C. Paris, M.B.A., C.P.A., Assistant Comptroller
Linn Hemingway McCain, Accountant
Walter E. Bromley, Accountant
Ruth Earnest, Assistant Accountant
Clay Maupin, Senior Account Clerk
Camilla Weathers, B.S., Clerk-Stenographer
Margaret Lewis, Cashier
Virginia Baxter Earnest, Bookkeeper
Frances Brack, Bookkeeper
Emma Grace Merrell, Payroll Clerk
*Patty McCormack, B.S. in Com., Senior Account Clerk
Edna Edwards, Payroll Clerk
Nelson B. Turner, Account Clerk
Virginia Prichard, Account Clerk
Dorothy Garrison, Bookkeeper

Purchasing and Stores Division

*G. Robert Boyd, M.A., Ph.D., Supervisor
*Hayes, Charles W., M.A., Supervisor
Minnie Pherigo, Order Clerk
Edith Sanders, Stenographer
G. L. Mardis, Storeroom Keeper

Division of Maintenance and Operations

Elgan B. Farris, C.E., Chief Engineer
John M. Howard, Assistant Engineer
Clyde Lilly, Chief Clerk
*Mary Day, Secretary
Evelyn Weber, Secretary
Helen Elizabeth Scully, Clerk
Laura Johnson Shade, Clerk-Typist
Claude Dickerson, Steamfitting and Plumbing Foreman
G. C. Jones, Carpenter Foreman
L. D. Kitchen, Electrician Foreman
Julius Rominger, Gardener and Labor Foreman
James Wood, Painter Foreman
*Edward Hieatt, Supervisor of Janitors
Scudder Pearson, Supervisor of Janitors

* See appended list of leaves of absence, resignations, deaths, etc., p. 347.

*Seth Taylor, Jr., Assistant Supervisor of Janitors
C. E. Warren, Foreman, Heating Plant
H. O. Bradshaw, Mechanic

STENOGRAPHIC BUREAU

Mary Johnston, Head
*Marjorie Dennis, Stenographer
*Evelyn Rogers, Stenographer
Dora Boaz, Mimeograph Operator
Katherine W. Shelbourne, Stenographer

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Carrie Bean, Superintendent of University Station
Eloise Gray Webb, Assistant Superintendent
*Adrian Bradshaw, Clerk

KENTUCKY KERNEL

Niel Plummer, M.A., Ph.D., Acting Director of Student Publications
William Donald Grote, A.B., Manager of Printing Plant
Mary Louise Naive, B.S. in Com., Secretary

STUDENT UNION BUILDING

*Mackie Rasdall, M.A., Director
*Bart Nixon Peak, A.B., LL.B., Acting Director
*Ena Sellman, Stenographer-Cashier
Arkley Wright, Bookkeeper
Margaret Crutcher, Hostess
*Shirley Beeler, Hostess
Elizabeth S. Luxon, Hostess

STUDENT UNION CAFETERIA

Jennie May Trigg, B.S. in H.E., Director
Ferne King, B.S., Assistant Director
*Jane B. Hayes, B.S. in H.E., Assistant Director
*Mary E. Neill, B.S. in H.E., Assistant Manager
Mamie Duke, Clerk-Bookkeeper
*Clay Maupin, Senior Clerk
Betty Gault, Stores Clerk

CAMPUS BOOK STORE

James E. Morris, A.B., Manager
*Lloyd Q. Mautz, A.B., Assistant Manager
Bess Dudley Mayes, Secretary
Elizabeth Moores, Clerk

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* See appended list of leaves of absence, resignations, deaths, etc., p. 347.

LEAVES OF ABSENCE, RESIGNATIONS, DEATHS, AND OTHER CHANGES IN STATUS AFFECTING THE OFFICE PERSONNEL

1944-45

Argent, Janet, Resigned February 23, 1944
Aswerus, Violette, Resigned September 9, 1944
Barkley, Dorothy Watkins, Resigned February 28, 1945
Beeler, Shirley, Died December 29, 1944
Bogan, Catherine, Resigned March 25, 1944
Bradshaw, Adrain, Military leave
Brown, Ann Lee, Resigned June 1, 1944
Bull, Jacqueline Page, On leave 1944-45
Byron, Ethel, Resigned December 31, 1944
Croft, Lysle Warrick, Military leave
Dailey, Adelle Gensemer, Resigned June 1, 1944
Day, Mary, Resigned October 1, 1944
Dedman, May Christian, Resigned April 15, 1944
Dennis, Elizabeth V., Resigned October 20, 1944
Dennis, Marjorie, Resigned February 2, 1945
Dicken, Helen, Resigned November 1, 1944
Doll, Okla Bradley, Resigned November 30, 1944
Erskine, Margaret W., Resigned June 1, 1944
Garland, Marjorie, Resigned January 15, 1945
Geary, Marjorie, Resigned March 1, 1944
Gentry, Myra L., Resigned March 31, 1945
Gillespie, Vera Wood, Resigned July 1, 1944
Graves, Jeannette, Transferred to Alumni Office June 30, 1944
Griffin, Robert J., Military leave
Harned, Mary Hart, Resigned August 31, 1944
Hayes, Charles W., Resigned November 1, 1944
Hayes, Jane B., Resigned July 20, 1944
Hieatt, Edward, Resigned January 1, 1945
Herndon, Claire C., Resigned June 15, 1944
Hornsby, Margery P., Resigned June 30, 1945
Kirwan, Albert D., On leave 1945-46
Lehnig, Mardelle, Resigned April 7, 1945
McCormack, Patty, Resigned October 27, 1944
McCourt, Frances F., Resigned January 31, 1945
McRight, Ralph, Military leave
Maupin, Clay, Transferred to Comptroller's Office July 1, 1944
Mautz, Lloyd Q., Military leave

Moberly, Jaunita C. Resigned June 30, 1945
Moseley, Frank O'Rear, Military leave
Myers, Eugene, Military leave
Neel, Margaret, Resigned April 26, 1944
Newell, Margaret, Resigned January 1, 1945
Oakes, Rosalie, On leave 1944-45; Resigned June 30, 1945
Paris, Jess C., Resigned November 1, 1944
Peak, Bart Nixon, Resigned July 1, 1944 as Acting Director of Student Union Building
Pinney, Oliver H., On leave 1944-45
Ramey, Ione White, Resigned May 26, 1944
Rankin, Rome, Resigned August 1, 1944
Rix, Ethel Smoot, On leave 1944-45
Rouse, Elizabeth Wyatt, Resigned May 8, 1943
Rogers, Evelyn, On leave January 1, 1945
Sellman, Ena, Transferred to Comptroller's Office July 1, 1944
Shipp, Barbara, Resigned September 10, 1944
Shively, Bernie Armstead, Head Football Coach beginning February 9, 1945
Skidmore, Beatrice R., On leave 1944-45
Smith, Coleman Rogers, Military leave
Smith, Frances C., Resigned September 1, 1944
Smoot, Lucille, Resigned August 1, 1944
Starnes, Gayle, Military leave
Taylor, Elizabeth, Resigned June 10, 1944
Taylor, Seth, Resigned May 15, 1945
Thomas, F. Carleton, Died December 2, 1944
Truby, Helen Jane, Resigned August 15, 1944
Turner, Mildred S., Transferred to Residence Halls July 15, 1944
Walker, Emma Jane, Resigned June 30, 1945
Warren, Juanita, Resigned December 31, 1944
Williams, Angeline Jett, Resigned September 12, 1944
Wells, Elizabeth, Resigned January 31, 1945

ADMINISTRATIVE COMMITTEES[1]

1944-45

Accredited Relations—Paul P. Boyd, E. N. Fergus, J. S. Horine, A. J. Lawrence, Roy Moreland, Maurice F. Seay, W. S. Taylor, M. M. White

Advistory Athletics Council—Pre_ident H. L. Donovan, Alvin E. Evans, W. D. Funkhouser, L. J. Horlacher, M. E. Ligon, H. D. Palmore, B. A. Shively, and two student members

Commencement Exercises—Henry Beaumont, Leo M. Chamberlain, Guy W. Chipman, Anne Callihan, E. B. Farris, Jeanette Graves, Jane Haselden, Mrs. A. B. Kirwan, John Kuiper, Mildred Lewis, A. J. Olney

Foreign Students—Jane Haselden, A. E. Bigge, Grant C. Knight, Dorothy Linville, J. R. Schwendeman, Alberta Server, Henry Noble Sherwood

Freshman Week—M. M. White, E. J. Asher, W. E. Beals, W. A. Heinz, Sarah B. Holmes, J. S. Horine, T. T. Jones, Maple Moores, Bart N. Peak, C. C. Ross, Dewey G. Steele

Grants-in-Aid—D. V. Terrell, R. S. Allen, Alexander Capurso, M. E. Ligon, Frank D. Peterson, V. R. Portmann, B. A. Shively, E. G. Sulzer

Haggin Fund Publications—Frank L. McVey, Howard Beers, T. D. Clark, E. F. Farquhar, W. D. Funkhouser, Edward Wiest.

Insurance—Edward Wiest, Brinkley Barnett, Alvin E. Evans, Robert N. Jeffrey, L. H. McCain, E. Z. Palmer, Frank D. Peterson, C. C. Ross, R. H. Weaver.

Library—J. W. Martin, George K. Brady, T. D. Clark, C. S. Crouse, H. B. Price, Frank H. Randall, Herbert P. Riley, W. S. Taylor.

Music—Alexander Capurso, Howard Beers, Frank C. Fowler, John Kuiper, C. A. Lampert, Mildred Lewis, Maurice Seay.

Non-Resident Fees—Leo M. Chamberlain, Frank Murray, Frank D. Peterson.

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[1] When not otherwise included, the Dean of the University is ex-officio a member of each administrative committee. The first named member of each committee is the chairman.

Personnel Office—M. M. White, Paul P. Boyd, Thomas P. Cooper, Sarah B. Holmes, T. T. Jones, Maple Moores, W. S. Taylor, D. V. Terrell, Edward Wiest.

Schedule of Classes—O. T. Koppius, L. L. Dantzler, L. J. Horlacher, Marshall Ketchum, Robert G. Lunde, L. E. Meece, Roy Moreland, L. L. Quill, Morris Scherago, R. E. Shaver.

Scholarship and Attendance—Paul P. Boyd, Alvin E. Evans, Jane Haselden, L. J. Horlacher, W. A. Price, W. S. Taylor, D. V. Terrell, Edward Wiest, M. M. White.

Social Program—Sarah B. Holmes, Dorothy Hillenmeyer Evans, T. T. Jones, Roy Moreland, Edward Newbury, Irma Poole, Mackie Rasdall, W. S. Ward, and student members.

Student Loans—T. T. Jones, W. R. Allen, Sarah B. Holmes, W. W. Jennings, and three student members.

War Information—Frank L. McVey, George K. Brady, Louis Clifton, Chloe Gifford, Ezra L Gillis, Mary Elizabeth Hanson, R. D. Hawkins, Sarah B. Holmes, E. G. Sulzer, W. S. Taylor, Lee H. Townsend, Myrtle Weldon.

COMMITTEES OF THE UNIVERSITY FACULTY

1944-45

Elections—Edward Wiest, Jesse E. Adams, N. R. Elliott, W. F. Gallaway, C. G. Latimer, Frank Murray, R. E. Shaver.

Rules—R. G. Lunde, W. E. Beals, Dana G. Card, Leo M. Chamberlain, C. S. Crouse, M. E. Ligon, Roy Moreland.

Post-War Planning—Leo M. Chamberlain, Jesse E. Adams, Paul P. Boyd, Louis Clifton, L. L. Dantzler, Statie Erikson, Alvin E. Evans, Margaret I. King, John Kuiper, J. W. Martin, H. B. Price, Morris Scherago, D. V. Terrell, W. S. Webb.

Student Organizations—Irwin T. Sanders, Sarah B. Holmes, T. L. Hankins, T. T. Jones, R. M. Sullivan.

PART VI

STATISTICAL SUMMARY

UNIVERSITY ENROLMENT BY SEX AND BY COLLEGES AND CLASSES FOR THE YEAR ENDING JUNE 30, 1945 INCLUDING BOTH SUMMER TERMS OF 1944

(All Duplicates excluded)

Classification	Arts and Sciences		Agriculture and Home Economics		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	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	154	340	154	340	494
Seniors	27	179	11	75	12	1	5	2	4	88	7	44	.....	.....	66	389	455
Juniors	44	200	9	48	9	2	13	2	2	71	8	42	.....	.....	85	365	450
Sophomores	34	138	13	32	32	7	14	....	2	33	9	36	.....	.....	104	246	350
Freshmen	236	322	39	61	87	7	.....	....	6	90	24	55	.....	.....	392	535	927
Specials	10	38	.....	2	1	.....	.....	....	30	199	1	3	.....	.....	42	242	284
Auditors	4	9	.....	.....	.....	.....	.....	....	2	4	.....	1	.....	2	6	16	22
Transients	7	120	3	1	.....	.....	2	....	7	34	.....	.....	.....	.....	19	155	174
Totals	362	1006	75	219	141	17	34	4	53	519	49	181	154	342	868	2288	3156

UNIVERSITY ENROLMENT FOR THE FALL, WINTER, AND SPRING QUARTERS OF 1944-45 BY SEX AND BY COLLEGES AND CLASSES

(All Duplicates excluded)

Classification	Arts and Sciences		Agriculture and Home Economics		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	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	51	122	51	122	173
Seniors	20	139	7	62	8	1	4	2	4	51	7	39	.....	.....	50	294	344
Juniors	40	192	6	48	7	2	11	2	2	46	8	40	.....	.....	74	330	404
Sophomores	30	132	13	32	31	7	14	....	2	23	9	34	.....	.....	99	228	327
Freshmen	216	311	36	61	74	7	.....	....	1	16	23	53	.....	.....	350	448	798
Specials	9	26	.....	.....	1	.....	.....	....	10	11	1	.....	.....	.....	21	37	58
Auditors	3	7	.....	.....	.....	.....	.....	....	.....	.....	.....	1	.....	2	3	10	13
Transients	4	94	.....	.....	.....	.....	.....	....	.....	1	.....	.....	.....	.....	4	95	99
Totals	322	901	62	203	121	17	29	4	19	148	48	167	51	124	652	1564	2216

UNIVERSITY ENROLMENT FOR THE FALL QUARTER OF 1944-45 BY SEX AND BY COLLEGES AND CLASSES

Classification	Arts and Sciences		Agriculture and Home Economics		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	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	30	77	30	77	107
Seniors	11	87	4	37	4	1	1	1	3	21	2	29	.....	.....	25	176	201
Juniors	22	155	.....	57	8	.....	8	2	1	34	4	35	.....	.....	43	283	326
Sophomores	31	164	10	36	17	7	13	....	1	17	8	33	.....	.....	80	257	337
Freshmen	177	301	31	64	72	5	.....	....	4	16	23	54	.....	.....	307	440	747
Specials	5	8	.....	.....	1	.....	.....	....	2	7	.....	.....	.....	.....	9	15	24
Auditors	3	4	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	2	2	6	8
Transients	1	68	.....	.....	.....	.....	.....	....	.....	1	.....	1	.....	.....	1	70	71
Totals	250	787	45	194	102	13	22	3	11	96	37	152	30	79	497	1324	1821

UNIVERSITY ENROLMENT FOR THE WINTER QUARTER OF 1944-45 BY SEX AND BY COLLEGES AND CLASSES

Classification	Arts and Sciences		Agriculture and Home Economics		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	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....	27	65	27	65	92
Seniors	14	93	5	45	5	1	4	1	3	28	6	31	.....	.....	37	199	236
Juniors	28	152	4	47	8	.....	7	3	2	33	8	37	.....	.....	57	272	329
Sophomores	20	152	11	36	16	7	12	....	2	22	7	31	.....	.....	68	248	316
Freshmen	154	280	27	50	56	6	.....	....	1	13	22	50	.....	.....	260	399	659
Specials	1	6	.....	.....	1	.....	.....	....	.....	3	.....	.....	.....	.....	2	9	11
Auditors	.....	2	.....	.....	.....	.....	.....	....	.....	.....	.....	1	.....	.....	.....	3	3
Transients	2	58	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	2	58	60
Totals	219	743	47	178	86	14	23	4	8	99	43	150	27	65	453	1253	1706

UNIVERSITY ENROLMENT FOR THE SPRING QUARTER OF 1944-45 BY SEX AND BY COLLEGES AND CLASSES

Classification	Arts and Sciences		Agriculture and Home Economics		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	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	32	65	32	65	97
Seniors	17	112	6	50	6	1	4	2	3	38	5	29	.....	.....	41	232	273
Juniors	36	174	6	44	5	2	11	2	1	44	7	38	.....	.....	66	304	370
Sophomores	23	105	10	29	21	7	10	....	1	22	7	28	.....	.....	72	191	263
Freshmen	104	270	25	50	42	7	.....	....	.....	14	12	43	.....	.....	183	384	567
Specials	5	23	.....	.....	1	.....	.....	....	8	3	1	.....	.....	.....	15	26	41
Auditors	.....	5	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	5	5
Transients	4	49	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	4	49	53
Totals	189	738	47	173	75	17	25	4	13	121	32	138	32	65	413	1256	1669

UNIVERSITY ENROLMENT FOR BOTH SUMMER TERMS OF 1944 BY SEX AND BY COLLEGES AND CLASSES

(All Duplicates excluded)

Classification	Arts and Sciences		Agriculture and Home Economics		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	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	121	250	121	250	371
Seniors	11	63	6	24	7	.....	1	....	2	50	1	15	.....	.....	28	152	180
Juniors	22	53	4	22	3	.....	7	2	1	45	3	14	.....	.....	40	136	176
Sophomores	20	48	1	11	10	1	5	....	.....	13	4	11	.....	.....	40	84	124
Freshmen	69	44	6	5	28	3	.....	....	9	78	7	5	.....	.....	119	135	254
Specials	1	14	.....	2	.....	.....	.....	....	20	189	.....	4	.....	.....	21	209	230
Auditors	1	2	.....	.....	.....	.....	.....	....	2	4	.....	.....	.....	.....	3	6	9
Transients	4	45	3	1	.....	.....	2	....	7	34	.....	.....	.....	.....	16	92	108
Totals	128	281	20	65	48	4	15	2	41	413	15	49	121	250	388	1064	1452

UNIVERSITY ENROLMENT FOR THE FIRST SUMMER TERM OF 1944 BY SEX AND BY COLLEGES AND CLASSES

Classification	Arts and Sciences		Agriculture and Home Economics		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	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	101	203	101	203	304
Seniors	12	62	4	20	7	.....	1	....	2	43	1	13	.....	.....	27	138	165
Juniors	19	45	4	20	3	.....	6	2	1	40	3	11	.....	.....	36	118	154
Sophomores	16	46	1	12	8	1	3	2	.....	13	5	11	.....	.....	33	85	118
Freshmen	65	41	5	5	29	1	.....	....	7	71	6	4	.....	.....	112	122	234
Specials	1	15	.....	1	.....	.....	.....	....	11	141	.....	4	.....	.....	12	161	173
Auditors	1	1	.....	.....	.....	.....	.....	....	1	3	.....	.....	.....	.....	2	4	6
Transients	2	52	2	1	.....	.....	1	....	3	27	.....	.....	.....	.....	8	80	88
Totals	116	262	16	59	47	2	11	4	25	338	15	43	101	203	331	911	1242

UNIVERSITY ENROLMENT FOR THE SECOND SUMMER TERM OF 1944 BY SEX AND BY COLLEGES AND CLASSES

Classification	Arts and Sciences		Agriculture and Home Economics		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	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	63	103	63	103	166
Seniors	8	40	5	15	6	.....	.....	....	1	30	1	11	.....	.....	21	96	117
Juniors	20	40	2	18	2	.....	7	2	1	24	3	10	.....	.....	35	94	129
Sophomores	16	34	.....	8	8	1	3	....	.....	4	3	8	.....	.....	30	55	85
Freshmen	57	33	4	2	24	2	.....	....	4	10	4	4	.....	.....	93	51	144
Specials	.....	4	.....	1	.....	.....	.....	....	9	49	.....	2	.....	.....	9	56	65
Auditors	.....	1	.....	.....	.....	.....	.....	....	1	1	.....	.....	.....	.....	1	2	3
Transients	3	52	1	1	.....	.....	2	....	4	9	.....	.....	....	.....	10	62	72
Totals	104	204	12	45	40	3	12	2	20	127	11	35	63	103	262	519	781

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