

Bulletin of the

UNIVERSITY OF KENTUCKY



SUMMER QUARTER 1945

First Term: June 11 to July 18

Second Term: July 19 to August 25

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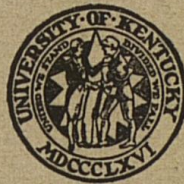
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BULLETIN
OF THE
University of Kentucky



SUMMER QUARTER, 1945

First Term: June 11 to July 18
Second Term: July 19 to August 25

UNIVERSITY SCHOOL

Elementary—June 11 to July 21
High School—June 11 to July 21

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SUMMER QUARTER CALENDAR 1945

June 11	Monday—Registration for First Term
June 12	Tuesday—Class work begins
June 18	Monday—Last date on which one may enter an organized class
June 22	Friday—Last date on which one may drop a course without a grade
June 22	Friday—Period for filing applications for degrees
June 30	Saturday—Last date upon which a student may withdraw and receive a refund on fees for the first term.
July 4	Wednesday—Holiday
July 18	Wednesday, 6 p. m.—First term ends
July 19	Thursday—Registration for Second Term
July 20	Friday—Class work begins
July 23	Monday—Last date on which one may enter an organized class
July 26	Thursday—Last date for filing applications for degrees
July 31	Tuesday—Last date on which one may drop a course without a grade
August 8	Wednesday—Last date upon which a student may withdraw and receive a refund on fees for the second term.
August 25	Saturday, 6 p. m.—Quarter ends.

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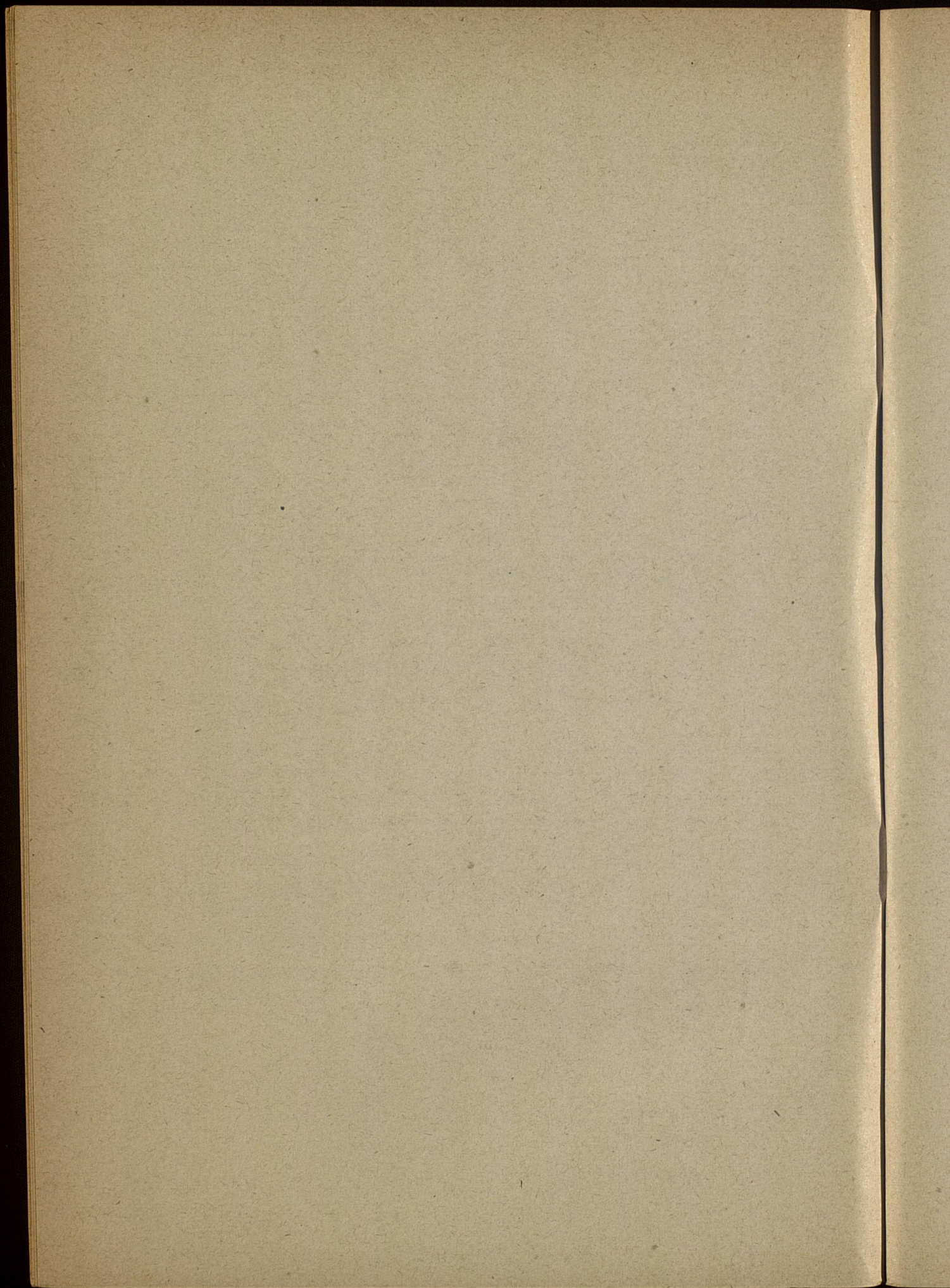
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Part I
GENERAL INFORMATION



GENERAL INFORMATION

THE SUMMER QUARTER FOR 1945

Because the University of Kentucky now employs its instructional staff on a twelve months' basis, it is possible to enlarge somewhat the offering for the 1945 Summer Quarter. While it is difficult in these times to predict several months in advance the exact course demands, the student is assured that the offering will be approximately as extensive and diversified as the listing in this bulletin. However, the University reserves the right to withdraw any particular course for which the demand proves to be slight or negligible.

Courses will be offered for graduates and for undergraduates in 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, and the College of Commerce.

The needs of the following groups, particularly, have been kept in mind in planning the Summer Quarter for 1945.

1. The high school boy who graduates in May or June and will not be eighteen years of age until late in the summer or fall. Such a boy may easily complete one and possibly two quarters of college work before entering military service. Experience has proved that every added day of study is an advantage to the student entering military service.
2. The high school girl who graduates in May or June and wishes to advance her college preparation as rapidly as possible in order that she may be of largest service to the nation in its present crisis.
3. All students, women and men, who are in college and wish to accelerate their programs of study as much as possible.
4. Teachers, principals, supervisors, and superintendents who desire to further their preparation for educational work in elementary and secondary schools.
5. All persons who may desire certain courses in order to advance in their specific vocations or to fit themselves better for positions available as a result of the war.

Over and above its program of liberal education the University Summer Quarter provides numerous opportunities for persons to prepare both for emergency occupations and for normal or after-the-war employment. The extent of the opportunities is indicated

by the following vocational areas in which summer courses will be offered: Industrial Chemistry, Journalism, Medical Technology, Pre-Medicine, Pre-Dentistry, Pre-Nursing, Music, Library Science, Public Service, Art, Bacteriology, Geography, Geology, Psychology, Social Work, Sociology, Agriculture in its various phases, Pre-Forestry, Pre-Veterinary, Home Economics, Civil Engineering, Electrical Engineering, Mechanical Engineering, Metallurgical Engineering, Mining Engineering, Law, Elementary Teaching, High School Teaching, Educational Supervision and Administration, General Business, Commerce-Law, Industrial Administration, and Secretarial Work.

It should be emphasized that the University's participation in the Army Specialized Training Program will not in any way interfere with the normal operation of the schedule for regular summer students.

ACCREDITED RELATIONS

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 Engineer's Council for Professional Development.

THE ENVIRONMENT OF THE UNIVERSITY

The University of Kentucky is located in Lexington in the center of the Bluegrass, a delightful country of scenic beauty and of great historical interest.

Many of the famous horse farms, some individual establishments containing more than a thousand acres, are open to visitors throughout the year. These farms, with their broad pastures, sparkling streams, woodlands, and paved roads provide Fayette County with a system of parks which is unique. Idle Hour, cradle of four Derby winners; Elmendorf; Walnut Hall; Calumet, home of Whirlaway; Castleton; Hamburg Place; Dixiana; Coldstream; and Faraway, home of Man o' War, are among the beautiful horse farms in Fayette County open to visitors.

Points of particular interest in Lexington, other than the nearby farms, are Ashland, the home of Henry Clay; General John Hunt Morgan's home; the home of Mary Todd, wife of Lincoln; the vast tobacco warehouses; the Keenland Race Track; the track of the Kentucky Trotting Horse Breeder's Association; the United States Veterans' Hospital; and the U. S. Public Health Service Hospital.

Within a relatively short distance from Lexington are Frankfort, the Capital City, with its many historical features; Herrington Lake; Shakertown; Fort Harrod and its adjacent Pioneer Cemetery; the Old Kentucky Home; the Palisades of the Kentucky River; and many other points of historical and scenic interest.

STUDENT UNION BUILDING

The Union Building is the center of student activity on the campus. Various rooms are available for the enjoyment of students during leisure hours. One may meet friends or read leading magazines and newspapers in the Great Hall; engage in pool, billiards, or pingpong in the Game Room; play cards, checkers, or chess in the Social Room; and hear the works of great composers in the Music Room.

For the convenience of students, the building maintains an information desk, telegraph and telephone service, a modern barber shop and beauty salon, a newly decorated cafeteria serving foods of quality, an attractive soda grill, conference rooms and comfortable lounges.

The Student Union Board is eager for all University students to take advantage of the services and facilities of the building.

PLACEMENT SERVICE

There is a constantly growing demand for the services of the graduates of the University of Kentucky. Placement services are maintained by several colleges on the campus and every attempt is made to procure for the students and for the graduates of the University the type of employment which will enable each one to achieve the best results.

In the College of Commerce is the Senior-Commerce Employment Association which is self-supporting and is headed by a permanent secretary. The Association has been very successful in placing graduates with nationally operating industrial concerns, credit investigating and reporting companies, wholesale houses, banks, insurance companies, chain store companies, governmental agencies both federal and state, and in teaching positions. These positions included secretarial work, accounting, advertising, selling, personnel, and statistical work.

The Teacher Placement Bureau of the College of Education is designed particularly to assist in the placement of superintendents, principals, and teachers. Each student in attendance at the University who desires a teaching position should register with the Placement Bureau, Room 115, Education Building. Superintendents and college administrators who desire capable teachers should write directly to the bureau for recommendations and credentials.

The College of Engineering has an enviable reputation for

training its men well for successful careers in the engineering and industrial world. The demand for their services has been such that, with a few exceptions, all members of each class have been employed soon after graduation. The placement of engineering graduates is directed by the Dean of the College with the assistance of the heads of departments.

RECREATIONAL ACTIVITIES

The summer months are vacation and recreation time. Provision is made for Summer Quarter students to participate in numerous recreational activities and to learn the fundamental skills and techniques involved. The Physical Education Department is offering recreational courses for men and women students in archery, badminton, tennis, social dancing, volley ball, bowling, and intramural sports. This is an opportunity for every summer quarter student to receive expert instruction in any or all of the above mentioned activities. If you are a novice it is your chance to learn; if an expert performer, it is your chance to participate under wholesome and enjoyable circumstances.

The primary purpose of the recreational courses is to provide pleasant and profitable leisure time activity for all students and to improve their performance ability. Teachers and supervisors of physical education will find the courses valuable in organizing teaching material and methods. Recreational leaders and directors will get new ideas on promoting leisure time activities. All Summer Quarter students will find the activities healthful and enjoyable.

THE UNIVERSITY SCHOOL AND STUDENT TEACHING

The University School will be in session during the first half of the summer quarter only. The term will begin Monday, June 11, and will close Saturday, July 21. The University School will be open from 8:00 to 12:00, six days a week.

Students desiring to register for Student Teaching in the University School should make application, on or before June 5, to Lyman Ginger, Acting Director of the University School. Students are urged to file their applications for this course as early as possible, as time should be allowed the Dean's office to check the prerequisites before registration.

Summer school students with children have an opportunity to place them in the University School. Both the Elementary School and the High School maintain modern programs of education that should be of interest to parents attending the University of Kentucky summer quarter. Persons desiring to avail themselves of the opportunities of the University School should write the Director requesting reservations for their children.

The University School will provide instruction in all subjects

regularly offered in the schools of Kentucky. High school pupils may earn one unit of credit toward their graduation requirements. This unit of work may be done in one subject or in two different subjects.

Pupils from any school in the state will be permitted to enroll in the University School for the summer term. The tuition charge for high school pupils will be \$10 for one-half unit or \$15 for one full unit in the ninth, tenth, eleventh, and twelfth grades. The tuition charge for seventh and eighth grade pupils will be \$7.50. No tuition is charged in the Elementary School for the summer quarter.

LENGTH OF QUARTER

The Summer Quarter of the University of Kentucky for 1945 will be eleven and one-half weeks in length, six days a week, and will be divided into two terms, the first to begin June 11 and to close July 18, the second to begin July 19 and to close August 25.

Classes during the Summer Quarter will begin at 7:00 a. m. The first hour will be from 7:00 to 8:15, the second hour from 8:25 to 9:40, the third hour from 9:50 to 11:05, and the fourth hour from 11:15 to 12:30. A few courses will meet for one-hour periods.

ADMISSION

Students will be admitted to the University as their previous training warrants. They will be admitted to the freshman class, to advanced standing, as special students, as graduate students, or as auditors.

Applicants for admission should write the Registrar's Office for forms on which to submit their applications, stating at the time whether they wish forms for admission to the freshman class, to advanced standing, or to the Graduate School. Applications and transcripts of credit should be filed in advance. Students entering with advanced standing and those entering the Graduate School should present transcripts from each institution they have attended.

To the Freshman 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, type-writing, 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.

To Advanced Standing. A student 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. 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.

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.

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.

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

College of Agriculture and Home Economics. Admission to this College is governed by the general admission requirements of the University outlined above.

College of Engineering. Admission to the freshman class of the College of Engineering is limited to students rated in the upper three-quarters 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.

College of Law. An applicant for admission to the College of Law must offer 90 quarter hours (exclusive of physical education and military science) completed in residence in colleges other than Law, nine of which must be in English. A standing of 1.0 is the minimum qualitative requirement, but in other than exceptional cases an applicant will not be accepted unless he has maintained a standing of 1.3 on all previous work. While there is no prescribed pre-law curriculum, the applicant's record is evaluated in terms of its relationship to the study of law, and in terms of the requirements of the Association of American Law Schools.

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

NUMBERING OF COURSES

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.

STUDENT LOAD

The normal load for the summer quarter is from 16 to 18 quarter hours, and for one term of the quarter, eight or nine hours.

FEEES

For 1945 the fee for all resident students, except those enrolled in the Law School, will be \$35 for the full summer quarter, and \$23 for either term. For non-resident students the corresponding fees will be \$55 and \$28. For resident students enrolled in the College of Law, the fee for the full summer quarter will be \$38 and for either term \$25. The corresponding fees for non-resident students will be \$58 and \$30.

All students will be charged a Health Service Fee of \$2.50 per quarter or \$1.25 per term.

Part-time students will pay according to the number of quarter hours carried, except that the full-time fee will be paid in all cases when the student load for one term equals or exceeds six quarter hours.

REFUNDS

During the first week after the opening of either term of the Summer Quarter, students withdrawing from the University may receive a refund on the amount paid in fees, 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.

LATE REGISTRATION

No student will be allowed to register for credit for the first term after June 18, or for the second term after July 23.

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 credit the student's standing is 1 or more.
- E—Failure, valued at no points and no credit.
- I—Incomplete.
- X—Absent from examination.
- WP—Withdrew passing.
- WF—Withdrew failing.

The standing of a student is defined as the ratio of his total number of points to his total number of credits. When a quarter's work is to be considered a standing is understood to be the ratio of the number of points gained to the number of credits scheduled.

ROOM AND BOARD

Application for a room in the women's residence halls should be made to the Director of the Residence Halls for Women, and for a room in the men's residence halls to the Dean of Men. Each application should be accompanied by a reservation fee of five dollars. If a check is sent in payment of this fee it should be made payable to the University of Kentucky. **Refunds of this fee will be made only in case notification of cancellation is given the Director of the Residence Halls for Women or the Dean of Men at least ten days before the term opens for which the reservation is made.** Upon occupancy of the room by a student, this fee will be held as a breakage deposit to be returned at the close of the term.

Women's Residence Units. Unless permission to live in town has been granted by the Office of the Dean of Women, all women students, except those living with relatives, must live in Residence Halls. During the Summer Quarter, the charge for any room is \$18.00 for a single term, or \$36.00 for the complete Summer Quarter. Bed linens are furnished, but students should bring blankets, towels, and dresser scarfs. Meals are not served in the halls during the Summer Quarter. An application blank for reserving a room in the Residence Halls may be secured from the Office of the Dean of Women, but a reservation will not be made until the completed application is returned accompanied by a \$5.00 deposit. Admission to the University by the Registrar's Office does not constitute a reservation in the Residence Halls. All room assignments are made in the order of receipt of the completed application. Rooms will be held only until 11:00 p. m. of the first day of registration unless special arrangement for late arrival has been made with the Director of the Residence Halls.

Men's Residence Halls. At present two of the men's halls, Bradley and Kinkead, are 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 accepted in the residence halls to the limit of available space. The Office of the Dean of Men has a list of rooms in the city which are available to students and will be glad to furnish a list to any who are interested.

Beginning with the 1945 Summer Quarter, prices of rooms in Men's Halls will be as follows: For the quarter: suites, \$38 per

person; double rooms, \$30 per person; and single rooms, \$34 per person. In the Basement, single rooms will be \$24 per person and double rooms \$20. The prices for one term of the summer quarter will be half those stated for the full quarter, plus \$1.00.

University Cafeteria. Meals will be served at the University Cafeteria during the Summer Quarter.

Rooms and Board in Lexington. Students who have not made reservations should apply upon arrival in Lexington at the office of the Dean of Women or Dean of Men for information relative to available rooms.

UNIVERSITY HEALTH SERVICE

The services of a physician and nurse and complete infirmary facilities will be available during both terms to the students registered in the Summer Quarter.

REQUIREMENTS FOR GRADUATION

Undergraduate Colleges. To be eligible for graduation from any under-graduate 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.

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.

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. A student is required to satisfy the requirements for the degree for which he is a candidate as of the date on which he enters the Graduate School. In all cases, however, a minimum residence of one year (36 weeks) is required for the master's degree, and three years (108 weeks) for the doctorate. See the Catalog or Graduate Bulletin for the specific requirements for the various graduate degrees.

No transferred credits are accepted toward the master's degree. Two years of graduate work from a fully accredited institution which offers the doctor's degree may be accepted toward the Ph.D. degree.

Theses must be presented in final form to the Dean of the Graduate School not later than three weeks before the date set for the final examination. The final examination must be taken at least fifteen days before the close of the quarter.

A graduate student must maintain a standing of 2.0 and no grade below C shall be counted.

No graduate credit is given for courses taken by correspondence or class extension.

No work is given graduate credit unless the student was enrolled in the Graduate School at the time during which the work was taken.

Application for a Degree. All students in residence during the first term who are to be candidates for degrees in August should make formal application in the office of the Registrar on Friday, June 22. All applications for degrees must be filed not later than Thursday, July 26. No applications for graduation in August will be received after this date. The student is responsible for making application for the correct degree. That is, if a student is working for the degree, Bachelor of Arts in Education, he should apply for this degree and not make application for the degree, Bachelor of Arts, granted in the College of Arts and Sciences. If, for any reason, a student does not receive the degree at the time indicated on the application, it will be necessary for him to file another application, as the University is not responsible for carrying over applications from one session to another.

COLLEGE OF ARTS AND SCIENCES

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

1. General cultural courses with majors and fields of concentration, leading to the degrees of A.B. and B.S.
2. Professional courses in industrial chemistry, leading to the degree of B.S. in Industrial Chemistry; in journalism, leading to the degree of A.B. in Journalism; in library science, leading to the degree of B.S. in Library Science; in music, leading to the degree of B.S. in Music; and in bacteriology, leading to the degree of B.S. in Medical Technology.
3. Professional courses in which the general requirements for the A.B. and B.S. degrees are fulfilled.
4. Pre-Professional courses meeting the requirements for admission to professional schools.
5. Combined courses, by means of which students may save a year or more in gaining both the A.B. or B.S. and a degree in Law, Medicine, or Dentistry.
6. Graduate courses leading to the master's and doctor's degrees in the Graduate School.

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, subject to the following conditions.

OUTLINE OF REQUIREMENTS FOR GRADUATION

Lower Division—Freshman and Sophomore Years

General Requirements:

- Freshman Orientation, first and second quarters, freshman year, 2 quarter hours.
- English, 10 to 20 quarter hours (20 quarter hours required if only 3 units of entrance are presented).
- General Hygiene, freshman or sophomore years, 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.
2 quarters in one language, if 3 or more units of entrance are presented; 4 quarters in one language, if only 2 units; 5 quarters in one language, or 4 quarters in one language and 2 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, 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

Field of Concentration. Sixty quarter hours are to be elected subject to the approval of the student's adviser and the Dean of the College, and must be in courses not open to freshmen.

Major. At least 22 quarter hours of the required 60 in the field of concentration must be in one department, the major department, exclusive of courses open to freshmen. However, the major department may require more than the minimum 22. A minimum of

8 quarter hours is required as a prerequisite for a major in any department. A **Topical Major** is also offered, which is not confined to one department or field.

The Four Generically Related Fields Are: 1. Literature, Philosophy and the Arts. 2. Social Studies. 3. Physical Sciences. 4. Biological Sciences,

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, Sociology, and Zoology will be required to schedule tutorial courses as specified by their major department 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.

COLLEGE OF AGRICULTURE AND HOME ECONOMICS

Agriculture

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

Prescribed non-agriculture	63 hours
Prescribed agriculture	47 hours
Electives required in agriculture	46 hours
Free electives	54 hours
Total	210 hours

The liberal system of electives enables a student to take a general course or to pursue some specialization in a chosen field. Options from which a choice may be made are: General agriculture, high school teaching, agricultural entomology, agronomy, animal husbandry, dairying, poultry, farm economics and rural sociology, markets and rural finance, and horticulture.

Students planning to prepare for professional work in agricultural engineering, veterinary medicine, forestry or the rural ministry may take work that will permit them to enter these schools. A two-year, non-degree course is provided for those who do not desire to complete the degree requirements. The poultry short course will be held in August and plans are being made for other short courses.

Home Economics

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

Prescribed non-home economics	75 hours
Prescribed home economics	69 hours
Electives required in home economics	18 hours
Free electives	43 hours

Total 205 hours

Through the proper choice of electives a student may take a general course or may pursue some specialization in one of the following options: General home economics; high school teaching; institution economics and dietetics; clothing, textiles and related art; and child development and family living. The Summer Quarter offers unusual opportunity for choice of electives in all of these options.

COLLEGE OF ENGINEERING

Admission. For admission to the freshman class in the College of Engineering, applicants should present one and one-half units in Algebra, one unit in Plane Geometry, and one-half unit in Solid Geometry, other requirements being the same as specified for admission to the freshman class in general. Applicants meeting all of the general requirements, except the half unit in Solid Geometry, may be admitted to the freshman class, but will be required to remove the deficiency during the freshman year. It is desirable, but not obligatory, that applicants also have high school credit in Chemistry, Physics, and Trigonometry. Admission to the freshman class of this college is limited to students rated in the upper three-quarters on the placement tests.

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

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

The courses of study leading to these degrees are identical during the first two quarters of the freshman year. This gives the student the benefit of a period of training in fundamental subjects before he is required to choose among the different fields.

There will be a freshman class in engineering beginning work in the Summer Quarter of 1945.

COLLEGE OF LAW

The Summer Quarter in the College of Law consists of two terms of approximately six weeks each.

The Summer Quarter is a regular part of the work of the school, and the same quantity and quality of work is required as in the regular session. An effort has been made to provide a full program, not only for the beginning students, but also for those who have completed part of a law course. One-third of the year's work can be completed in a summer quarter so that by attending three summer quarters a student may complete the full three-year curriculum in two calendar years.

The courses in the College of Law for the Summer Quarter are planned with special reference to three types of students. First, students who desire to shorten the three-year period by studying during the summer; second, public school teachers who desire to know something about the law either for their own benefit or for the purpose of advising students; third, lawyers, probate judges, and prosecuting attorneys who desire either to complete their work for a degree or to become acquainted with recent developments of the law.

The law library is one of the best in the South, consisting of over 30,000 volumes. It receives regularly approximately 100 legal periodicals.

The Order of the Coif was established in 1931. Summer school students are entitled to consideration for membership in this Order on the completion of their work.

The Law School publishes the Kentucky Law Journal four times a year. To this, summer school students are permitted to contribute by way of writing case notes.

COLLEGE OF EDUCATION

The College of Education grants the degree of Bachelor of Arts in Education.

To be admitted to the College of Education a student shall meet the following requirements: standing of at least 1.0 (average of C on all previous work) or, if an entering freshman, he must rank in the upper three-fourths on the University placement tests.

For a degree in education the student is required to present a total of 192 quarter hours with a standing of 1.0.

General Requirements for Students in the Field of Secondary Education

1. Minimum General Preparation	Quarter Hours
English	16
Psychology	8
Physical Education	3
Orientation	2
Military Science (for men only)	12

	Quarter Hours
2. Teaching Fields	
Two majors (36+36)	72
or	
One major, two minors (36+24+24	84
or	
An Area of Concentration	72
3. Professional Preparation*	
Education 35	4
Education 122	5
Education 101	5
Education 105	4
Directed Teaching	9
4. Core Curriculum	40
At least forty quarter hours must be submitted from the fields listed below. No candidate may present fewer than three nor more than four fields, nor fewer than eight quarter hours in any field; nor may any candidate select under the core curriculum any field which he uses as a major or minor.	
Fine Arts	Philosophy and Psychology
Science	Foreign Languages
Social Science	Vocational Subjects
Mathematics	Health Physical Education, and Safety

General Requirements for Students in the Field of Elementary Education

	Quarter Hours
1. English	16
a. Oral and Written Composition	
b. History of English Literature	
2. Science	16
a. Heredity	
b. Electives	
3. Social Sciences	36
a. History—American and Kentucky	
b. Problems of Citizenship	
c. Principles of Sociology	
d. Principles of Geography	
e. Economic Problems	

* Physical Education, Music, and Art Majors should substitute Education 16, and Education C44 for Education 35 and Education 122. Business Education Majors should substitute Education 104 and Education 158a, b for Education 101 and Education 105.

	Quarter Hours
4. Fine Arts	12
a. Public School Art	
b. Elective in Art	
c. Public School Music	
5. Health and Physical Education	11
6. Psychology	10
7. Professional Preparation	51
a. Fundamentals of Elementary Education	
b. Children's Literature	
c. Teaching Arithmetic	
d. Tests and Measurements	
e. Teaching Science	
f. Teaching Reading	
g. Industrial Arts	
h. Supervised Student Teaching	
8. Electives, including Principles of Nutrition.....	40

COLLEGE OF COMMERCE

The degree of Bachelor of Science in Commerce is conferred upon students who meet the requirements of any one of the following curricula: General-Business, Business-Management, Industrial-Administration, Marketing and Advertising, Commerce-Law, and Secretarial. The minimum number of quarter hours required for graduation is 192, except under the Industrial-Administration Curriculum which requires 216. The scholastic 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.

THE GRADUATE SCHOOL

The Growth of the Graduate Program. The demand for graduate work at the University of Kentucky has grown rapidly in recent years. High school teachers, supervisors, principals and superintendents of schools, and teachers in normal schools and junior and senior colleges are seeking the education and training represented by higher degrees. To meet this demand, the several colleges of the University are providing larger programs of work for graduate students.

Residence Credit. A graduate student must carry at least six quarter hours in each term of the Summer Quarter to be entitled to full residence credit for that term.

Applicants for Graduate Degrees. Applications for degrees must be made at least four weeks before the date of commence-

ment. These applications are made at the office of the Registrar of the University.

Requirements for the Master's Degree. A candidate for the degree of Master of Arts or Master of Science is required to complete 36 quarter hours of graduate work of which two-thirds is in a major and one-third in electives, spend a full year in residence, present an acceptable thesis, have a reading knowledge of one modern foreign language and pass a final oral examination. He must maintain a standing of 2.0.

Requirements for Professional Degrees. The professional degree of M.A. or M.S. in Education, or M.S. in Agriculture or Home Economics, may be secured with the same requirements except that there is no language requirement and, that with the permission of the department concerned, 18 additional quarter hours and 12 additional weeks may be offered in lieu of a thesis.

General Requirements for a Master's Degree. All candidates for any master's degree must have completed the equivalent of a B.A. 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. No credit for advanced degrees is allowed for correspondence or extension work and no transferred credit is accepted toward a master's degree.

General Requirements for the Doctor's Degree. 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, Psychology, Political Science, and Romance Languages. Minor work may be carried in any department offering graduate courses.

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, satisfies the language requirements, passes the required examination in the subjects, presents a satisfactory dissertation, and is deemed worthy of recognition as a scholar of high attainments in his chosen province.

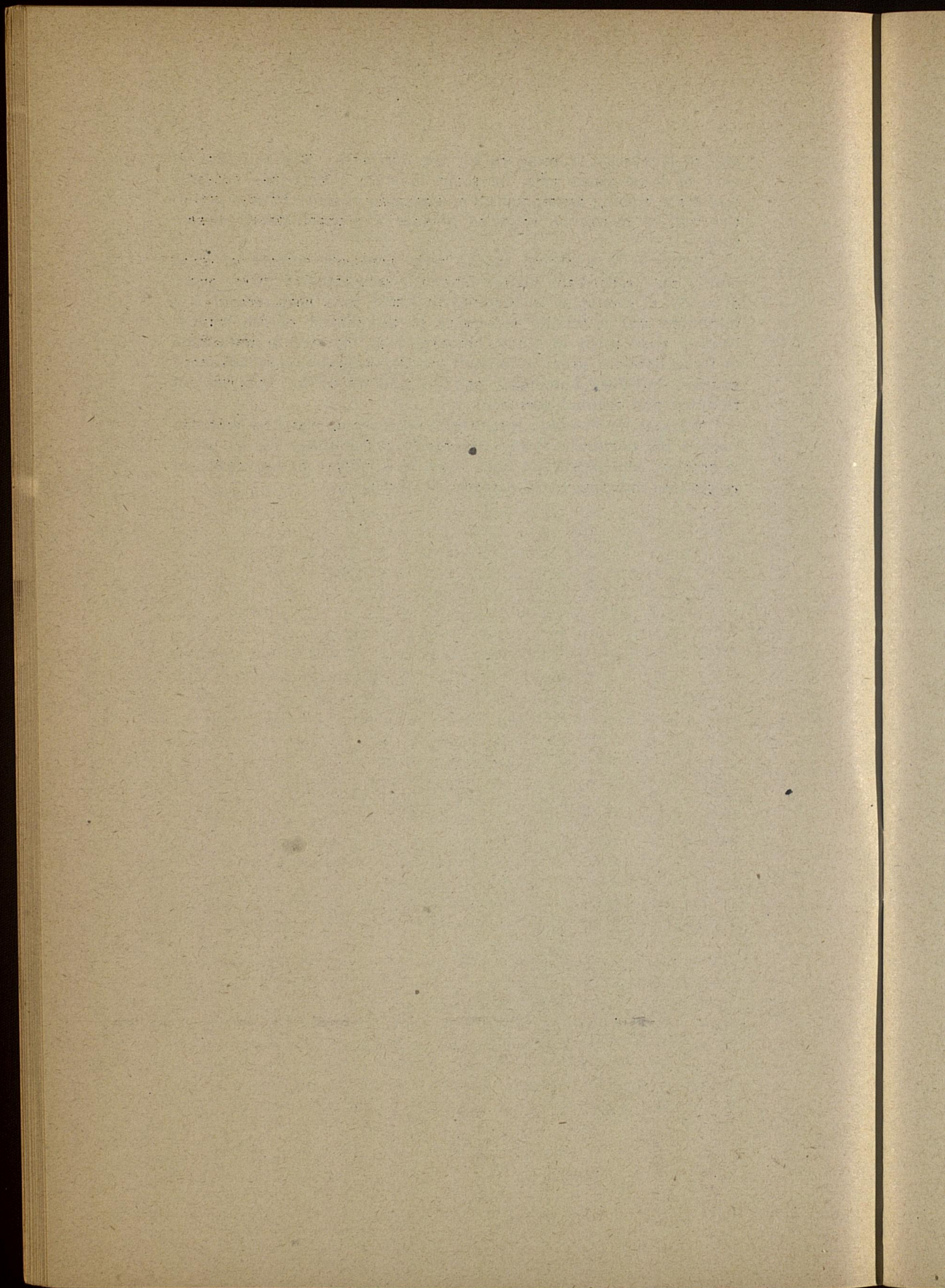
The doctor's degree is intended to represent not a specified amount of work covering a specified time, but the attainment through long study of independent and comprehensive scholarship in a special field. Such scholarship should be shown by the candidate's thorough acquaintance with present knowledge in his special field of learning and a marked capacity for research.

A minimum of three collegiate years of resident graduate work, of which at least the last year must be spent at the Univer-

sity 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.

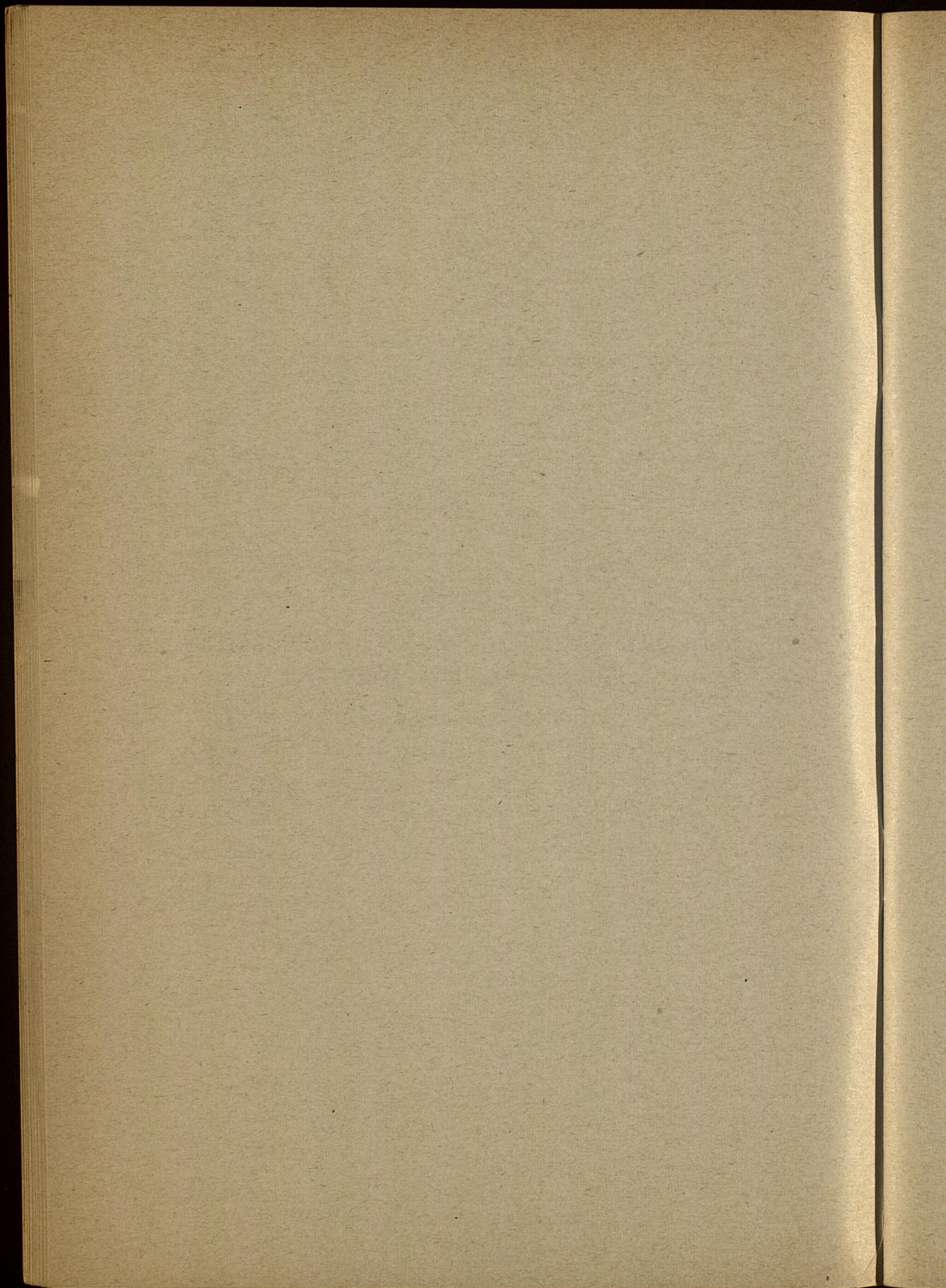
Work done in other institutions of learning may be accepted toward the doctorate at the University of Kentucky but no work is credited which has not been done in a college or university of recognized standing or in a research laboratory.



Part II

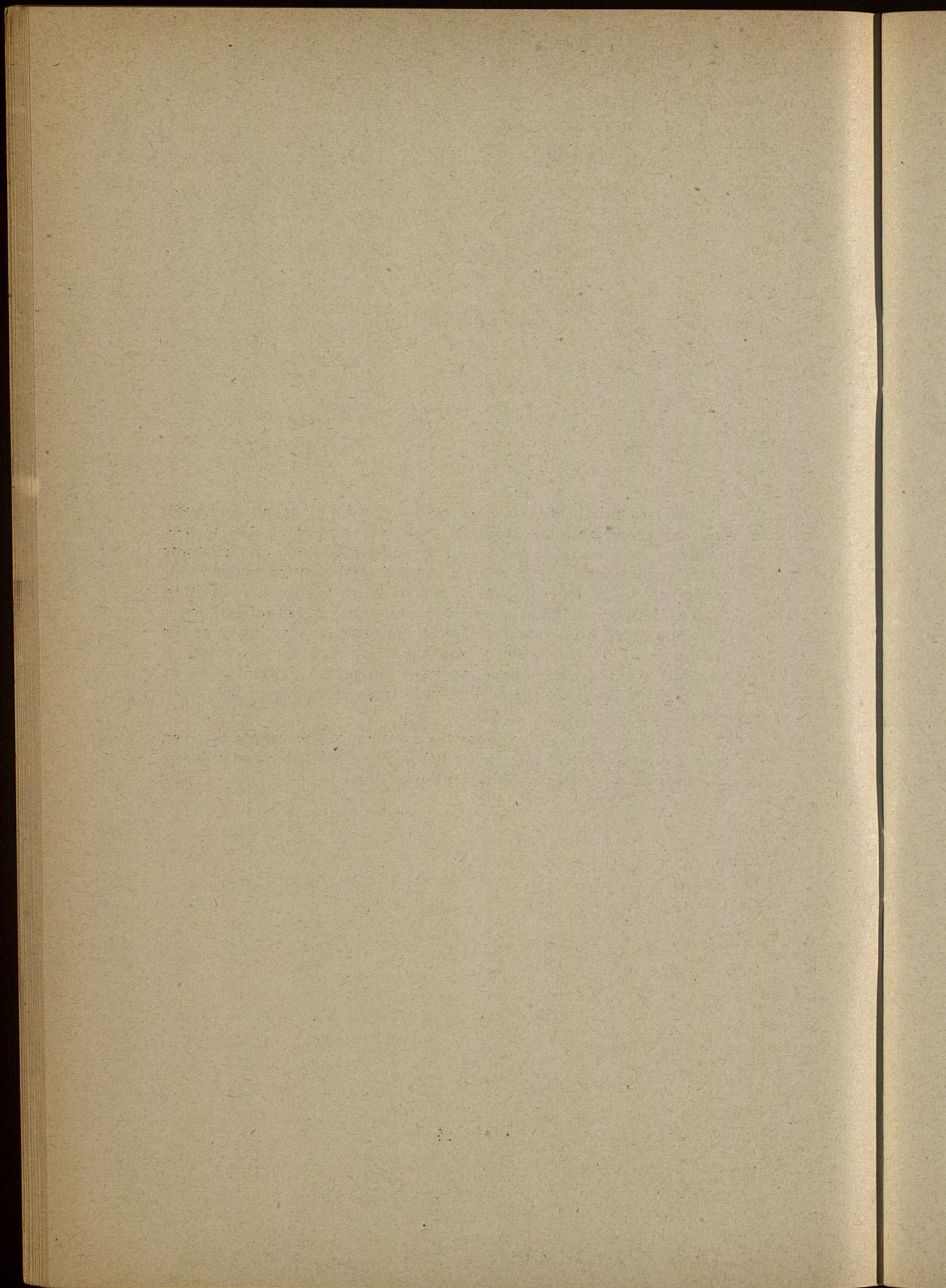
**STATEMENT OF COURSES TO BE OFFERED IN
THE 1945 SUMMER QUARTER**

BY COLLEGES AND DEPARTMENTS



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.

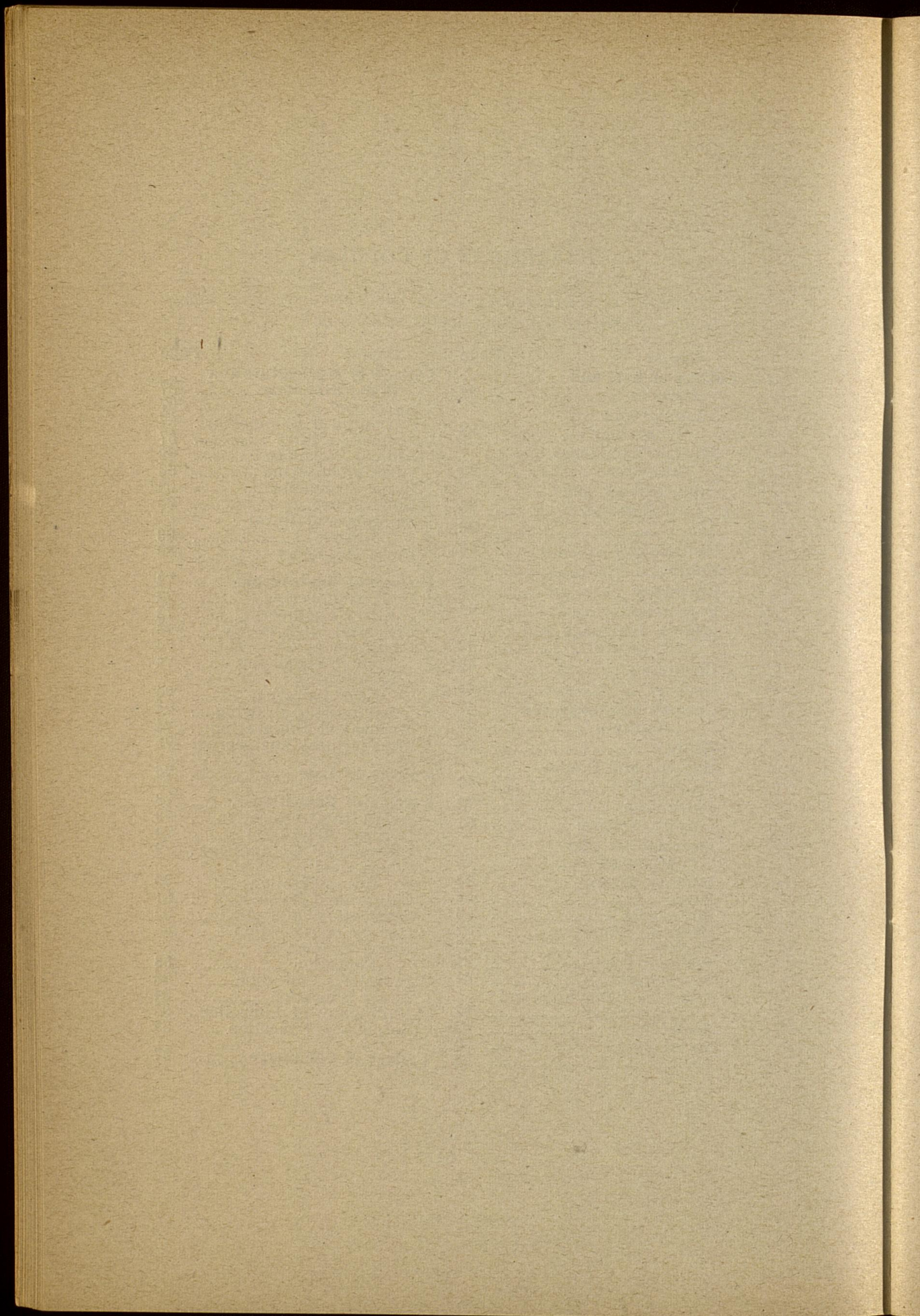
In the statement of courses the number of the course is given first, followed by the descriptive title. The credit in quarter hours is indicated by a number in parentheses, thus (4).



STATEMENT OF COURSES

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

Course	Page	Course	Page
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Anatomy and Physiology	33	Agronomy	67
Ancient Languages and Literature	34	Agricultural Entomology ..	67
Anthropology and Archaeology	36	Animal Industry	67
Art	36	Animal Pathology	68
Bacteriology	38	Farm Engineering	68
Botany	42	Home Economics	69
Chemistry	42	Horticulture	68
Economics	43	Markets and Rural Finance	68
English Language and Literature	43	Rural Sociology	69
Geography	45	College of Engineering	72
Geology	46	Civil Engineering	72
German Language and Literature	46	Sanitary Engineering	72
History	48	Electrical Engineering	73
Hygiene and Public Health	49	Engineering—General	74
Journalism	49	Applied Mechanics	74
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Sociology	65	Educational Psychology	81
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		History of Education	83
		Home Economics Education	83
		Industrial Education	84
		Music Education	84
		Philosophy of Education..	85
		Secondary Education	85
		College of Commerce	87



COLLEGE OF ARTS AND SCIENCES

PAUL PRENTICE BOYD, M.A., Ph.D., LL.D., Dean
MARTIN MARSHALL WHITE, M.A., Ph.D., Associate Dean

ANATOMY AND PHYSIOLOGY

For Graduation Requirements See Catalog

First Term

1a GENERAL PHYSIOLOGY. (4) 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.

106 INTRODUCTION TO ENDOCRINOLOGY. (4) 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. Prerequisites: A & P 1a and 1b or the equivalent; Zoology 7b; Chemistry 1a and 1b; and the Instructor's consent.

201a RESEARCH IN PHYSIOLOGY. (6) Allen

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

Full Quarter

1a GENERAL PHYSIOLOGY. (4) Cole
Description same as presented above.

6b GENERAL ANATOMY AND PHYSIOLOGY FOR NURSES. (4) Allen and Cole
This is a continuation of 6a (see Catalog) 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 reproduction system. Lectures, recitations, and laboratories. Prerequisite: 6a.

107 ADVANCED ANATOMY. (5)

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. **Prerequisites:** A & P 1a and 1b or the equivalent.

Second Term

1b GENERAL PHYSIOLOGY. (4)

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.

105 ARCHITECTURE OF THE HUMAN SKELETON. (5)

Allen

This course is designed for the student who anticipates further advanced study in Anatomy and Physiology, for students of Anthropology, for students in Art, and for those who are preparing for the study of medicine. The study begins with the development of the skeleton and joints. This is followed by the process of ossification and the histology of bones. Each bone is studied in detail; organized demonstrations are given with architecture and function being stressed. Variations in the skeleton are considered. When possible, the bone is compared with that of the lower vertebrates. The physiology of the bone, joint and muscular relations is studied in detail. Lecture, recitation, and laboratory. **Prerequisite:** Junior standing.

201b RESEARCH IN PHYSIOLOGY. (6)

Allen

Continuation of 201a. Conferences and laboratory. **Prerequisites:** A & P 1a and 1b or the equivalent; Chemistry 130a, b, c or the equivalent; Physical Chemistry desirable; Physics one year.

ANCIENT LANGUAGES AND LITERATURES

For Graduation Requirements See Catalog

First Term

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.

***C1a BEGINNING LATIN. (4)**

Jones

First 35 lessons in Bennett's First Year Latin.

***C2 CAESAR AND SELECTIONS. (4)**

Jones

The equivalent of three books of Caesar. **Prerequisite:** A. L. 1a, b.

* Open to Freshmen

- *C3 **CICERO AND SELECTIONS.** (4) Jones
The equivalent of three orations of Cicero. Prerequisite: A. L. 2.
- *C4a **VERGIL.** (4) Jones
Books I, II of Eneid. Prerequisite: A. L. 2 or 3.
- *C5 **LIVY.** (4) Jones
Book I and Selections. Prerequisite: A. L. 3 or 4.
- *C6a **HORACE.** (4) Jones
First three books of Odes. Prerequisite: A. L. 4 or 5.
- *C51a **BEGINNING GREEK.** (4) Jones
First 30 lessons in Benner & Smyth's Beginning Greek.
- C151a-d **INDEPENDENT WORK IN ANCIENT LANGUAGES.** (4) Jones
These are courses in individual work. The work assigned will depend upon the needs of the student. Prerequisite: A. L. 5.
- C121 **SURVEY OF ROMAN CIVILIZATION.** (4) Jones
History, Public and Private Life, Archaeology. Prerequisite, Junior standing.
- C150a **TEACHER'S COURSE IN LATIN.** (4) Jones
A hasty review of Bennett's Beginner's 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.

Second Term

- *C1b **BEGINNING LATIN.** Continuation of 1a. (4) Jones
Lessons 36-72 in Bennett's First Year Latin.
- *C2 **CAESAR AND SELECTIONS.** (4) Jones
The equivalent of three books of Caesar. Prerequisite: A. L. 1a, b.
- *C3 **CICERO AND SELECTIONS.** (4) Jones
The equivalent of three orations of Cicero. Prerequisite: A. L. 2.
- *C4b **VERGIL** Continuation of 4a. (4) Jones
Books IV, VI, of Eneid. Prerequisite: A. L. 2 or 3.
- *C5 **LIVY.** (4) Jones
Book I and Selections. Prerequisite: A. L. 3 or 4.
- *C6b **HORACE.** Continuation of 6a. (4) Jones
Book four of Odes: Satires: Epistles.
- *C51b **BEGINNING GREEK.** Continuation of 51a. (4) Jones
Lessons 31-60 in Benner & Smyth's Beginning Greek.
- C122b **GREEK LITERATURE IN ENGLISH TRANSLATION.** (4) Jones
Drama, History, Philosophy. Given each year. Prerequisite: Junior standing
- C150b **TEACHER'S COURSE IN LATIN.** Continuation of 150a. (4) 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.

* Open to Freshmen.

ANTHROPOLOGY AND ARCHAEOLOGY

For Graduation Requirements See Catalog

First Term

- *1a **GENERAL ANTHROPOLOGY.** (3) 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.
- 105 **ETHNOLOGY.** (3) 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.
- 125 **PHYSICAL ANTHROPOLOGY.** (3) 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 effect, development of human dentition, and osteopathology as observed in prehistoric man.

Second Term

- *1c **GENERAL ANTHROPOLOGY.** (3) Snow
The archaeology and ethnology of the New World and Oceania. The cultures of the Indians of North and South America and the peoples of the Pacific Islands.
- 106 **ETHNOLOGY OF EUROPE.** (3) Funkhouser
A study of the origins and migrations of the ethnological groups of Europe. The influence of Hamitic, Ligurian, Iberian and Pelasgian stocks of prehistoric civilizations; the effect of the migration of the Indo-Iranian Division; the contribution of the Semites to early European cultures; the contrast between the Aryans and Nordics in racial characters with particular attention given to the Q-Kelts, P-Kelts, Slavs and Anglo-Saxons. Lectures, three hours.
- 125 **PHYSICAL ANTHROPOLOGY.** (3) 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 effect, development of human dentition, and osteopathology as observed in prehistoric man.

ART

For Graduation Requirements See Catalog

First Term

- *30a **INTRODUCTION TO ART.** (2) Callihan
Elementary principles, theory of color, essentials of designs, forms of art. Given in illustrated lectures with assigned problems, notebooks and reports. Not open to students who have had Art 10a.
- *30b **INTRODUCTION TO ART.** (2) 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, notebooks and reports.

* Open to Freshmen.

- *30c INTRODUCTION TO ART. (2)** 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, notebooks and reports.
- *61a ELEMENTARY DRAWING. (4)** Rannells
 Training of vision and development of skill through drawing from natural forms. Twenty studio hours per week.
- *61b ELEMENTARY DRAWING. (4)** Rannells
 Continuation of 61a. Analytical study of form and space. Introductory problems in composition. Twenty studio hours per week. Prerequisite: 61a.
- 63a ADVANCED DRAWING. (4)** Rannells
 Analysis of composition in black and white. (Comparative study of actual and pictorial space.) Twenty studio hours per week. Prerequisite: 61b.
- 65a PAINTING. (4)** Rannells
 Technical instruction in oil and water color. Introduction to the study of pictorial composition; still life, landscape, figure. Twenty studio hours a week. Prerequisite: 63a.
- 65b PAINTING. (4)** Rannells
 Continuation of 65a. Twenty studio hours a week.
- 62 BASIC DESIGN. (4)** Barnhart
 The relation of materials and processes to art concepts. Exploratory construction in wood, clay, metal, paper, etc. Twenty studio hours a week. Prerequisite: 61b or equivalent.
- 64a INTERMEDIATE DESIGN. (4)** Barnhart
 Problems in creative construction adapted to the individual. Modeling, carving, making objects of use. Twenty studio hours a week. Prerequisites: 61b and 62.
- 64b INTERMEDIATE DESIGN (4)** Barnhart
 Continuation of 64a. Individual problems. Twenty studio hours a week.
- Note: Four-quarter-hour courses in Drawing and Painting, and in Design, will require 20 studio-hours per week for full credit for the summer term of 5½ weeks; but they may also be scheduled as three-quarter-hour courses requiring only 15 studio-hours per week.
- 10a PUBLIC SCHOOL ART. (3)** Callihan
 A study of essentials in art; definitions, initial concepts, principles, techniques; elementary skills through practice in design, drawing, lettering. Forms of art; analysis and interpretation on an elementary level. Bibliographies and teaching materials. For students in elementary education. Lectures, ten studio hours and weekly problems. Not open to students who have had Art 30a.
- 115a-d INDEPENDENT WORK. (4)** Staff
 Individual projects in painting or design; individual research in art history; studies in criticism. Each quarter's work is subject to review by the staff. Open only to advanced students upon approval of department head.

* Open to Freshmen.

ART

Second Term

10b PUBLIC SCHOOL ART. (3) 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, processes. Bibliographies and teaching materials. For students in elementary education. Given in the University Training School. Prerequisite: 10a.

115a-f INDEPENDENT WORK. (4) Staff

Individual projects in painting or design; individual research in art history; studies in criticism. Each quarter's work is subject to review by the staff. Open only to advanced students upon approval of department head.

143 CONTEMPORARY ART. (4) 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.

147 ART IN AMERICA. (4) Rannells

American architecture, sculpture, painting, illustration, handicrafts, etc., from colonial times to the present. Illustrated lectures; critical reports. Prerequisite: Art 142.

BACTERIOLOGY

**For Graduation Requirements and for Special Information
Concerning the Curriculum in Medical Technology, Consult the
University Catalog**

First Term

***2a ELEMENTARY MICROBIOLOGY. (6)** 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.

***6a, b BACTERIOLOGY AND PATHOLOGY FOR NURSES.**

(4) 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.

* Open to Freshmen.

- 56a BACTERIOLOGY OF FOODS. (For Sophomores.)**
 (4) 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. Prerequisites: Bacteriology 52 or 102; or 2b and Chem. 1b.
- 56b BACTERIOLOGY OF FOODS. (For Sophomores.)**
 (4) 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. Prerequisites: Bacteriology 52 or 102; or 2b and Chem. 1b.
- 102 GENERAL BACTERIOLOGY. (6)** Weaver
 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.
- 103 PATHOGENIC BACTERIOLOGY. (6)**
 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. Prerequisites: Bacteriology 102 or 52; or 2b and Chemistry 1b.
- 104 APPLIED BACTERIOLOGY. (3)**
 A course in bacteriological analysis to supplement Courses 52 and 102. Laboratory six hours a week. Prerequisites: Bacteriology 102 or 52; or 2b and Chemistry 1b.
- 110a LABORATORY DIAGNOSIS. (3)**
 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)**
 Continuation of 110a. Examination of stomach and intestinal contents and blood. Laboratory, six hours a week. Prerequisite: Same as for 110a.
- 111 GENERAL PATHOLOGY. (6)** Scherago
 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. Prerequisites: Anatomy and physiology 1a-b; Zoology 7c, 101b, and 106; Bacteriology 103; consent of head of department.
- 115a-f INDEPENDENT WORK. (4)** Humphries
 Students will be assigned special problems in laboratory work and reference reading. Laboratory, eight hours a week. Prerequisite: Bact. 2b.

120a, b, c **HOSPITAL LABORATORY PRACTICE.**

(6), (4), (5)

Scherago and others

Students will be required to carry out, under supervision, the laboratory work in one of the hospitals in Lexington. Laboratory, eighteen, twelve, fifteen hours a week. **Prerequisites:** Bacteriology 110a, b, and c; consent of head of department.

206a **BACTERIOLOGY OF FOODS.** (4)

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. **Prerequisites:** Bacteriology 2b or 52; Chemistry 21b.

206b **BACTERIOLOGY OF FOODS.** (4)

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. **Prerequisites:** Bacteriology 2b, or 52, or 102; Chemistry 21b.

Second Term

*2b **ELEMENTARY MICROBIOLOGY.** (6)

Weaver and Humphries

Continuation of course 2a. A cultural study of bacteria. Microbial physiology. A discussion of the relationship of micro-organisms to 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)

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.

57a **BACTERIOLOGY OF WATER AND SEWAGE. (For Sophomores.)**

(4)

Weaver

Microflora of water; importance of colon-typhoid group in water; standard methods of water analysis and interpretation of results; water purification; bacteriology of sewage disposal; swimming pools, bacterial examination, purification, control, etc. Water purification plants, sewage disposal plants and swimming pools will be visited and studied. Lectures and recitations, two hours; laboratory, four hours a week. **Prerequisites:** Bacteriology 102 or 52; or 2b and Chemistry 1b.

57b **BACTERIOLOGY OF WATER AND SEWAGE. (For Sophomores.)**

(2)

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.

* Open to Freshmen.

- 102 GENERAL BACTERIOLOGY. (6)** Scherago and Humphries
 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.
- 104 APPLIED BACTERIOLOGY. (3)**
 A course in bacteriological analysis to supplement Courses 52 and 102. Laboratory six hours a week. **Prerequisites:** Bacteriology 102 or 52; or 2b and Chemistry 1b.
- 110c LABORATORY DIAGNOSIS. (3)**
 Continuation of 110b. Laboratory diagnosis of parasitism; laboratory methods used in diagnosis of gonorrhoea, typhoid fever, diphtheria, syphilis, etc. Laboratory, six hours a week. **Prerequisite:** Preceded or accompanied by Bacteriology 125b.
- 115a-f INDEPENDENT WORK. (4)** Humphries
 Students will be assigned special problems in laboratory work and reference reading. Laboratory, eight hours a week. **Prerequisite:** 2b.
- 120a, b, c HOSPITAL LABORATORY PRACTICE.**
 (6), (4), (5) Scherago and others
 Students will be required to carry out, under supervision, the laboratory work in one of the hospitals in Lexington. Laboratory, eighteen, twelve, fifteen hours a week. **Prerequisites:** Bacteriology 110a, b, c; consent of head of department.
- 125a IMMUNOLOGY AND SEROLOGY. 5)** 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; complement fixation, etc. Lectures and recitations, two hours a week; laboratory, six hours a week. **Prerequisite:** Bacteriology 103.
- 125b IMMUNOLOGY AND SEROLOGY. (3)** Scherago
 Continuation of 125a. Antigenic analysis; serology of syphilis; hypersensitiveness. Lectures, one hour a week; laboratory, four hours a week. **Prerequisite:** Bacteriology 125a.
- 207 BACTERIOLOGY OF WATER AND SEWAGE. (6)** Weaver
 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 contents, 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.

BOTANY

For Graduation Requirements See Catalog

First Term

- *1c **GENERAL BOTANY.** (4) Riley
An introduction to taxonomy, ecology, and heredity in the higher plants. Prerequisite: Botany 1b or 8b.
- *8a **INTRODUCTION TO BOTANY.** (4) 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) Riley and McInteer
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 Botany 8a.
- 124 **ANATOMY OF VASCULAR PLANTS.** (4) Riley
The nature and origin of primary and secondary tissues and their distribution in plant organs. Prerequisite: Botany 1b or 8b.

Second Term

- *8a **INTRODUCTION TO BOTANY.** (4) 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) Riley and McInteer
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 Botany 8a.
- 114 **ECOLOGY.** (5) McInteer
The relationships existing between plants and their environment; plant successions; plant associations and formations; the principles of plant geography; the vegetation of North America. Prerequisite: Botany 1b or 8b.

CHEMISTRY

For Graduation Requirements See Catalog

First Term

- *1a **GENERAL CHEMISTRY.** (5) Staff
Chemistry of the non-metallic elements, and the metals. Lecture, 4 hours; recitation, 2 hours; laboratory, 8 hours.
- *37 **ORGANIC CHEMISTRY.** (6) Barkenbus
An elementary course for non-professional students. Lecture and laboratory, 16 hours. Prerequisite: Chemistry 1b or 2b.
- 21a **QUANTITATIVE ANALYSIS.** (4) Stewart
A laboratory course accompanied by lectures and classroom exercises. Gravimetric and volumetric methods of analysis are studied in detail. Lecture, 2 hours; laboratory, 12 hours. Prerequisite: Chemistry 20.

* Open to Freshmen.

Either Term or the Quarter

- 133 **QUALITATIVE ORGANIC ANALYSIS.** (5) Barkenbus
A systematic study of the separation and identification of organic compounds. Prerequisite: Chemistry 30c or 130c.
- 136a **SYNTHETIC ORGANIC CHEMISTRY.** (2) Barkenbus
A critical comparison of preparation methods accompanied by laboratory work and reports. Elective. Offered upon request. Prerequisite: Chemistry 30c or 130c.
- 129a **SELECTED PROBLEMS IN QUANTITATIVE ANALYSIS.** (3) Stewart
Offered upon request. Prerequisite: Chemistry 21c.
- 239a **ORGANIC CHEMISTRY.** (3)
Offered upon request. Prerequisite: Chemistry 136b or 133.
Other chemistry courses listed in the annual catalog will be offered if the demand is sufficient.

Full Quarter

- *3b **CHEMISTRY FOR NURSES.** (4)
Continuation of 3a. Prerequisite: 3a.
- *20 **QUALITATIVE ANALYSIS.** (6)
Lecture, 1 hour; laboratory, 10 hours. Prerequisite: Chemistry 1b or 2b.

ECONOMICS

See College of Commerce for Courses

ENGLISH LANGUAGE AND LITERATURE

For Graduation Requirements See Catalog

First Term

- *C1a **ENGLISH COMPOSITION.** (4)
Practice in writing correct and clear English. Accuracy of expression is desired rather than proficiency in style. A textbook will be used, but the instruction will also be based upon the study of representative English masterpieces. Required of all freshmen.
- *37 **STAGE PRODUCTIONS IN SCHOOL AND COMMUNITY.** (3) 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.
- 3a **HISTORY OF ENGLISH LITERATURE.** (5)
This is not a chronological survey of English literature, but a study of representative authors beginning with Chaucer and extending to contemporary writers. The selections may vary from year to year. Required of English majors during the sophomore year. Prerequisites: English 1a, 1b, 1c.

* Open to Freshmen.

7a ELEMENTS OF PUBLIC SPEAKING. (5) Sutherland
This course is designed to give the student experience in effective extempore public speaking. Critical studies of contemporary educational, political, social, and economic institutions, and problems are read to create a fund of knowledge as a basis for argument and discussion. Prerequisite: English 1a, 1b, 1c.

30 BUSINESS ENGLISH. (3)
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. Prerequisites: English 1a, 1b, 1c.

Full Quarter

***C1a ENGLISH COMPOSITION. (4)** Irvine
(For description see First Term)

***C1b ENGLISH COMPOSITION. (4)** Irvine
A continuation of English 1a.

Second Term

***C1b ENGLISH COMPOSITION. (4)**
A continuation of English 1a.

3b HISTORY OF ENGLISH LITERATURE. (5)
A continuation of English 3a. Prerequisites: English 1a, 1b, 1c; 3a.

106a ENGLISH ROMANTIC POETRY. (5) Brady
A careful study of growing signs of Romanticism in the early part of the 18th century. The French Revolution and its influence on the chief poets of the Romantic Movement; special emphasis on Wordsworth, Byron, Shelley, Keats, and other prominent poets of the first quarter of the 19th century. Prerequisites: English 1a, 1b, 1c; 3a, 3b.

170b BACKGROUNDS OF MODERN LITERATURE. (5) Gallaway
A continuation of English 170a. Prerequisites: English 1a, 1b, 1c; 3a, 3b.

210 SEMINAR. (5) 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-d SEMINAR. (5) 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 investigation according to the needs of the students in the group.

11a ARGUMENTATION AND DEBATE. (5) 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. Prerequisites: English 1a, 1b, 1c.

* Open to Freshmen.

- 108a **PRINCIPLES OF LITERARY CRITICISM.** (5) 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. Prerequisites: English 1a, 1b, 1c; 3a, 3b.
- 110a **SHAKESPEARE—COMEDY.** (5) Farquhar
Shakespeare's comedies will be studied in detail. Prerequisites: English 1a, 1b, 1c; 3a, 3b.
- 123b **AMERICAN LITERATURE AFTER 1830.** (5) 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. Prerequisites: English 1a, 1b, 1c; 3a, 3b.
- 125 **PRONUNCIATION OF MODERN ENGLISH.** (5) Dantzer
A study of present day pronunciation; dialectical peculiarities. Students will become proficient in using a phonetic alphabet. Prerequisites: English 1a, 1b, 1c; 3a, 3b.
- 133 **THE DEVELOPMENT OF AMERICAN REALISM.** (5) 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. Prerequisites: English 1a, 1b, 1c; 3a, 3b.
- 160 **THEORY AND TECHNIQUE OF ACTING.** (4) Briggs
Theory of acting applied to individual problems and groups. Development of skill, effectiveness, and grace in the use of the body. Attention on 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. Prerequisites: English 1a, 1b, 1c; 34a, 34b.

GEOGRAPHY

For Graduation Requirements, See Catalog

First Term

- *1a **ELEMENTS OF GEOGRAPHY.** (4) 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. It is 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. Open to freshmen with no prerequisites.

* Open to Freshmen.

- 101 **GEOGRAPHY OF NORTH AMERICA.** (4) 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.

Second Term

- *2 **REGIONAL GEOGRAPHY OF THE WORLD.** (4) 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.) Open to freshmen with Geography 1b as prerequisite.
- 102 **REGIONAL GEOGRAPHY OF LATIN AMERICA.** (4)
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.

GEOLOGY

For Graduation Requirements See Catalog

First Term

- *14a-d **ELEMENTARY FIELD GEOLOGY.** (1) McFarlan and Young
Visits are made to localities in the vicinity of Lexington to study local geological phenomena.
- *50a **OUTLINES OF GEOLOGY.** (4) 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.
- 120a **GEOLOGY OF KENTUCKY.** (4) McFarlan
A study of the geological features of the state other than mineral resources. These include the major events in its geological history, the development of regional characters and an explanation of its scenic and natural wonders.

GERMAN LANGUAGE AND LITERATURE

For Graduation Requirements See Catalog

First Term

Note—No credit will be 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 allowed 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) Bigge or Hegeman
The essentials of grammar and translation of easy prose with practice in reading and writing German. No credit is given for 1a until Course 1b is completed.

* Open to Freshmen.

***1b ELEMENTARY GERMAN. (5)** Bigge or Hegeman
Continuation of German 1a, with more extended exercises in easy reading, writing and pronunciation. **Prerequisite:** German 1a or one high school unit.

2a INTERMEDIATE GERMAN. (4) Bigge or Hegeman
Graded reader, followed by short stories from representative authors. Special sections are arranged in 2nd year for students of the physical and biological sciences. **Prerequisite:** German 1b.

2b INTERMEDIATE GERMAN. (4) Bigge or Hegeman
Continuation of German 2a. Selected readings. **Prerequisite:** German 2a.

3a SELECTED READINGS. (4) Bigge or Hegeman
Prose and poetry from standard German authors with brief outline of German literature. **Prerequisite:** German 2b.

105a-d INDEPENDENT WORK IN GERMAN. (4) Bigge or Hegeman
This course is designed for students who wish to do advanced work in German in their particular field of specialization. It is not limited to majors in the department.

106a SCIENTIFIC GERMAN. (4) Bigge or Hegeman
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. **Prerequisites:** 2a and 2b.

Second Term

***1a ELEMENTARY GERMAN. (5)** Bigge or Hegeman
The essentials of grammar and translation of easy prose with practice in reading and writing German. No credit is given for 1a until Course 1b is completed.

***1b ELEMENTARY GERMAN. (5)** Bigge or Hegeman
Continuation of German 1a, with more extended exercises in easy reading, writing and pronunciation. **Prerequisite:** German 1a or one high school unit.

2a INTERMEDIATE GERMAN. (4) Bigge or Hegeman
Graded reader, followed by short stories from representative authors. Special sections are arranged in 2nd year for students of the physical and biological sciences. **Prerequisite:** German 1b.

2b INTERMEDIATE GERMAN. (4) Bigge or Hegeman
Continuation of German 2a. Selected readings. **Prerequisite:** German 2a.

3b SELECTED READINGS. (4) Bigge or Hegeman
Continuation of German 3a. **Prerequisite:** German 3a.

105a-d INDEPENDENT WORK IN GERMAN. (4) Bigge or Hegeman
This course is designed for students who wish to do advanced work in German in their particular field of specialization. It is not limited to majors in the department.

106b SCIENTIFIC GERMAN. (4) Bigge or Hegeman
Continuation of German 6a. **Prerequisite:** 6a.

* Open to Freshmen.

HISTORY

For Graduation Requirements See Catalog

First Term

- *C4a MODERN EUROPE TO THE FRENCH REVOLUTION. (4)** Tuthill
A survey of the growth of Europe from the decline of the Roman Empire to the French Revolution.
- *C5a HISTORY OF THE UNITED STATES THROUGH 1865. (4)** Lunde
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.
- 40 HISTORY OF KENTUCKY. (3)** Clark
A general survey of the chief periods of Kentucky's growth and development from 1750 to the present.
- 120 EUROPE IN THE TWENTIETH CENTURY. (4)** Tuthill
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.
- 147 RECENT HISTORY OF THE UNITED STATES. (4)** Clark
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.**
- 171 EUROPE IN THE EIGHTEENTH CENTURY. (3)** 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.**

Second Term

- *C4b MODERN EUROPE SINCE THE FRENCH REVOLUTION. (4)** Staff
A survey of European developments from the French Revolution to the present. A continuation of course 4a.
- *C5b HISTORY OF THE UNITED STATES SINCE 1865. (4)** Knapp
A continuation of History 5a from 1865 to the present.
- 105 COLONIAL AMERICA. (4)** Knapp
A study of the origins of the English colonies; their political, social, and economic development; extension of their frontiers, inter-colonial wars, and external relations with imperial control and the colonial controversies. **Prerequisite: One year of American or European History.**
- 121 SOCIAL AND POLITICAL FACTORS IN CONTEMPORARY CIVILIZATION. (3)** Staff
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.

* Open to Freshmen.

HYGIENE AND PUBLIC HEALTH
For Graduation Requirements See Catalog

First Term

- *9 HYGIENE FOR TEACHERS. (3)** 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 or teachers in service.
- C100a PUBLIC HEALTH. (3)** Heinz
A consideration of the cause, prevalence, transmission and control of preventable diseases.
- C110 HEALTH EDUCATION. (3)** Heinz
A course dealing primarily with principles of health education, health service and health protection. Intended to consider also the cooperative nature of school health work through study of problems in the solution of which contributions are made by parents, the school, and the community.
- 111a-d INDEPENDENT WORK IN HYGIENE AND PUBLIC HEALTH. (4)** Heinz

Second Term

- *9 HYGIENE FOR TEACHERS. (3)** Hamilton
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 or teachers in service.
- C100b PUBLIC HEALTH. (3)** Hamilton
Continuation of 100a. Environmental and organizational approach to disease prevention.
- C115 COMMUNICABLE DISEASES. (3)** 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.

JOURNALISM

For Graduation Requirements, See Catalog

First Term

- 10a SURVEY OF JOURNALISM. (4)** McLaughlin
A general non-professional course covering newspaper organization and problems of interest to newspaper readers. Lectures and practice in the style of writing employed by the press. Not open to majors in Journalism.
- 10b SURVEY OF JOURNALISM. (4)** McLaughlin
A continuation of Journalism 10a. Prerequisite: Journalism 10a.

* Open to Freshmen.

20a NEWS REPORTING. (5) Tucker
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) Plummer
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) Plummer
A study of words and their fundamental values with reference to the development of a writing vocabulary.

110 SUPERVISION OF HIGH SCHOOL PUBLICATIONS. (4) 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 instructor.

115 ADVERTISING TYPOGRAPHY AND LAYOUT. (4) 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.

125 MAGAZINE ARTICLE WRITING. (4) Tucker
Lectures, personal conferences, and practice in writing and submitting material for publication in magazines; study of markets for this material; free-lance article writing.

Second Term

10a SURVEY OF JOURNALISM. (4) 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.

20b NEWS REPORTING. (5) Tucker
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) Plummer
A study of words and their fundamental values with reference to the development of a writing vocabulary.

101 COMMUNITY JOURNALISM. (4) Portmann
A study of the problems which confront the community weekly and the small city daily. Prerequisite: Journalism 20b.

103 NEWSPAPER ADMINISTRATION. (4) Portmann
A study of the business, circulation, advertising, and accounting divisions of the newspaper with special emphasis on the community newspapers. Prerequisite: Journalism 20b.

111 VERBAL CRITICISM. (4) 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) 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.
- 118 **PUBLICITY.** (4) 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.

LIBRARY SCIENCE

For Graduation Requirements and Special Information Concerning Library Science, Consult the University Catalog.

First Term

- 126 **PLACE, FUNCTION, AND ADMINISTRATION OF THE LIBRARY.** (5) 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) Young
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 **CATALOGING AND CLASSIFICATION.** (3) Young
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.
- 144 **LIBRARY RECORDS AND METHODS.** (3) 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, audio visual aids. The application of modern business methods to library procedures is emphasized.

Second Term

Professional Courses

- 132 **LIBRARY WORK WITH CHILDREN.** (3) 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.

- 133a **REFERENCE AND BIBLIOGRAPHY.** (3) 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.
- 150a **BOOK SELECTION.** (4) 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.

MATHEMATICS AND ASTRONOMY

For Graduation Requirements See Catalog

First Term

- *3 **PLANE TRIGONOMETRY.** (5) Brown
 The usual course in plane trigonometry. Prerequisite: 1½ units High School Algebra.
- *17 **COLLEGE ALGEBRA.** (5) Brown
 The standard course. A review of quadratic equations; includes simultaneous quadratics, variations, permutations and combinations, and theory of equations. Prerequisites: 1½ units of 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 of high school algebra and an adequate knowledge of the fundamental mathematical operations as determined by the department from the University placement tests.
- 20a **DIFFERENTIAL CALCULUS.** (5) South
 The course covers elementary differential calculus and an introduction to the integral. Prerequisites: Math. and Ast. 19.
- 30 **FUNDAMENTAL CONCEPTS OF ELEMENTARY MATHEMATICS.** (2) Latimer
 This course consists of a critical analysis of the basic concepts and principles of arithmetic and elementary algebra. It is designed to furnish, in part, a background for teachers of those subjects. Prerequisite: One year of high school algebra.
- 130 **FUNDAMENTAL CONCEPTS OF ELEMENTARY MATHEMATICS.** (2) Latimer
 (For description see Math. 30 above.)
- ADVANCED COURSE—To be selected (4) Latimer
- ADVANCED COURSE—To be selected (4) South

* Open to Freshmen.

Full Quarter

- *17 COLLEGE ALGEBRA. (5) Pence
(For description see First Term.)
- *19 PLANE AND SOLID ANALYTIC GEOMETRY. (5) Pence
The standard elementary course. Prerequisites: Math. and Ast. 5a, b or 17; 2, 3.
- 20a DIFFERENTIAL CALCULUS. (5) I, II, IV Staff
The course covers elementary differential calculus and an introduction to the integral. Prerequisites: Math. and Ast. 19.

Second Term

- *3 PLANE TRIGONOMETRY. (5) I, II, III, IV Downing
The usual course in plane trigonometry. Prerequisite: 1½ units High School Algebra, or Math. 5a.
- 20b INTEGRAL CALCULUS. (5) I, II, III, IV Downing
Completing the course in elementary calculus. Prerequisites: Math. and Ast 20a, 2.

MILITARY SCIENCE

Full Quarter

Branch Immaterial

- *1c FIRST YEAR BASIC COURSE, ROTC. (2) Stivers
Continuation of introductory course in Military Science, covering the following subjects: Concealment and Camouflage, Cover and Movement, Equipment and Clothing, Field Sanitation, Formations, Ceremonies, and Processing, Interior Guard Duty, Organization, Patrol, Operations, Protection against Carelessness, Safeguarding Military Information and Military Censorship, Scouts, Observers, and Messengers. Five hours a week.
- 6c SECOND YEAR BASIC COURSE, ROTC. (2) Eggers
Course in Military Science covering the following subjects: Administration, Formations, Ceremonies, and Processing; Hygiene; Tactical Training and Combat Organization; Training Management; Unit Supply (Battalion). Five hours a week. Prerequisite: Military Science 1a, 1b, 1c.

MUSIC

For Graduation Requirements See Catalog

First Term

- 4a PUBLIC SCHOOL MUSIC. (3) Lewis
A course in music methods and materials for use in the 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.

* Open to Freshmen.

- 4b PUBLIC SCHOOL MUSIC. (3)** Lewis
 A course in music methods and materials for use in the INTER-MEDIATE 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.
- 12a COUNTERPOINT. (3)** 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 firmi*, 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.
- 13a FORM AND ANALYSIS. (3)** 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, c.
- **C15a-1 APPLIED MUSIC—PIANO. (2)** Cullis
- **C17a-1 APPLIED MUSIC—VOICE. (2)** Horton
- **C18a-1 APPLIED MUSIC—ORGAN. (2)** Cullis
- 19a HISTORY OF MUSIC. (4)** Capurso
 A general study of the history of musical development from the standpoint of form.
- 20a SURVEY OF MUSICAL LITERATURE. (3)** 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, demonstration, and collateral reading.
- *22a BAND. (2)** Capurso
 For Freshmen enrolled in Military Science.
- *22b BAND. (2)** Capurso
 Continuation of 22a.
- *22c BAND. (2)** Capurso
 Continuation of 22b.
- 23a BAND. (2)** Capurso
 For sophomores enrolled in Military Science.
- 23b BAND. (2)** Capurso
 Continuation of Music 23a.
- 23c BAND. (2)** Capurso
 Continuation of Music 23b.

* Open to Freshmen.

** 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.

- 26 HIGH SCHOOL METHODS. (3)** Lewis
Development of knowledge and skills in handling the music program 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 CONCERT BAND. (2)** Capurso
For Juniors.
- 28b CONCERT BAND. (2)** Capurso
Continuation of Music 28a.
- 28c CONCERT BAND. (2)** Capurso
Continuation of Music 28b.
- 29a CONCERT BAND. (2)** Capurso
For Seniors.
- 29b CONCERT BAND. (2)** Capurso
Continuation of Music 29a.
- 29c CONCERT BAND. (2)** Capurso
Continuation of Music 29b.
- *33a ELEMENTARY HARMONY, SIGHTSINGING AND DICTATION. (4)** Horton
Melodic and rhythmic dictation drill in sightsinging and keyboard harmony. Harmonizing of new 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)** 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 tone. Required of all music majors. **Prerequisite: Music 33a.**
- *33c ELEMENTARY HARMONY, SIGHTSINGING AND DICTATION. (4)** 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)** Horton
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)** Horton
Continuation of Music 34a. Modulation by chromatic alterations and further study of chromatic dissonances. Required of all music majors. **Prerequisite: 34a**

* Open to Freshmen, ** Courses a, b, c open to Freshmen, d, e open to Freshmen, f, g, h, i, j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z open to Seniors.

34c ADVANCED HARMONY, SIGHTSINGING AND DICTATION. (4)

Horton
Continuation of Music 34b. Modulation by common tone. Further study of chromatic dissonances in scales other than diatonic, and survey of contemporary harmonic experiments. Required of all music majors. **Prerequisite: 34b.**

****39a-1 GLEE CLUB. (1)**

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.)

43a SURVEY OF MUSICAL THEORY. (3)

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)

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. **Prerequisites: Music 33a, b; 34a-b or equivalent; and 12a-b.**

114a INSTRUMENTATION AND CONDUCTING. (3)

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.

Second Term

12b COUNTERPOINT. (3)

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.**

13b FORM AND ANALYSIS. (3)

Horton
A continuation of Music 13a. **Prerequisite: Music 13a.**

****C15a-1 APPLIED MUSIC—PIANO. (2)**

Cullis

****C17a-1 APPLIED MUSIC—VOICE. (2)**

Horton

****C18a-1 APPLIED MUSIC—ORGAN. (2)**

Cullis

19b HISTORY OF MUSIC. (4)

Capurso
A continuation of Music 19a. Open only to music majors.

20b SURVEY OF MUSICAL LITERATURE. (3)

Capurso
Continuation of Music 20a. A study of the symphony, piano music, songs, opera from Beethoven to the present era. (Not open to music majors.)

**** 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.**

*22a BAND. (2) For Freshmen enrolled in Military Science.	Capurso
*22b BAND. (2) Continuation of 22a.	Capurso
*22c BAND. (2) Continuation of 22b	Capurso
23a BAND. (2) For Sophomores enrolled in Military Science.	Capurso
23b BAND. (2) Continuation of Music 23a.	Capurso
23c BAND. (2) Continuation of Music 23b.	Capurso
28a CONCERT BAND. (2) For Juniors.	Capurso
28b CONCERT BAND. (2) Continuation of Music 28a.	Capurso
28c CONCERT BAND. (2) Continuation of Music 28b.	Capurso
29a CONCERT BAND. (2) For Seniors.	Capurso
29b CONCERT BAND. (2) Continuation of Music 29a.	Capurso
29c CONCERT BAND. (2) Continuation of Music 29b.	Capurso
*33a ELEMENTARY HARMONY, SIGHTSINGING, AND DICTATION. (4) Melodic and rhythmic dictation drill in sightsinging and keyboard harmony. Harmonizing of new and original melodies using tonic, dominant, and dominant seventh chords and their inversions. Required of all music majors. Prerequisite: Music 12b.	Horton
*33b ELEMENTARY HARMONY, SIGHTSINGING, AND DICTATION. (4) 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 tone. Required of all music majors. Prerequisite: Music 33a.	Horton
*33c ELEMENTARY HARMONY, SIGHTSINGING, AND DICTATION. (4) 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.	Horton

* Open to Freshmen.

34a ADVANCED HARMONY, SIGHTSINGING, AND DICTATION. (4)

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)

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)

Horton

Continuation of Music 34b. Modulation by common tone. Further study of chromatic dissonances in scales other than diatonic, and survey of contemporary harmonic experiments. Required of all music majors. Prerequisite: 34b.

110 RESEARCH PROBLEMS IN PEDAGOGY OF THEORY. (3)

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. Prerequisites: Music 33a, b; 34a-b or equivalent; and 12a-b.

111a RESEARCH PROBLEMS IN MUSIC. (3)

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.

PHILOSOPHY

For Graduation Requirements See Catalog

First Term

31 LOGIC. (4)

Kuiper

A study of the logical principles underlying valid thought.

106 REPRESENTATIVE MODERN PHILOSOPHERS. (4)

Kuiper

A study in the original works of the chief figures in early modern philosophy. Special attention will be given to Descartes, Spinoza, Locke, Hume, and Kant.

Second Term

21 INTRODUCTION TO PHILOSOPHY. (4)

Kuiper

An elementary study of the principal types of philosophy, past and present.

120 GREAT RELIGIONS OF THE WORLD. (4)

Kuiper

A study of six religions in relation to the culture in which they arose: Shinto, Hinduism, Buddhism, the religion of ancient Greece, Judaism and Christianity.

PHYSICAL EDUCATION

For Graduation Requirements See Catalog

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

First Term

C42 PHYSICAL EDUCATION IN THE ELEMENTARY SCHOOL. (4)

Staff

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. Four hours per week.

125 ADMINISTRATION AND ORGANIZATION OF RECREATION. (4)

Staff

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)

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 age pupils. Four hours per week.

202 PROBLEMS COURSE IN CONTEMPORARY MOVEMENTS IN PHYSICAL EDUCATION. (4)

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)

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.

Recreative activities. Archery, Badminton, Social Dancing, Tennis (men and women), Volleyball (men), Bowling and Intramural Sports are offered without credit or additional tuition fees to regular summer quarter students during both terms. The activities are primarily designed for those who wish to acquire certain skill and teaching technique in the respective sports as well as to provide enjoyable recreational activities for the summer quarter. Students should sign up for the courses or course of their choice during the regular classification period or in the Physical Education Office in the basement of the Alumni Gymnasium during the first week.

Note: All recreational activities will be scheduled in the afternoon and early evening hours.

Full Quarter

- *1 **SPORTS SKILLS AND PHYSICAL FITNESS.** (1) Staff
All students required to take physical education must enroll in this course for their first quarter's work. Three hours per week.
- *9 **SOFTBALL.** (1) Staff
Fundamentals of Softball. Three hours per week.
- *11 **TENNIS.** (1) Staff
Fundamentals of Tennis. For beginners. Three hours per week.

Second Term

- 123 **HISTORY AND PRINCIPLES OF PHYSICAL EDUCATION.** (5) 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.
- 149 **ADMINISTRATION OF PHYSICAL EDUCATION AND ATHLETICS.** (4) 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.

PHYSICS

For Graduation Requirements See Catalog

First Term

- *51 **INTRODUCTION TO PHYSICS.** (3) Webb
A lecture demonstration course covering the subjects of Mechanics of Solids, Liquids, and Gases.
- *7a **GENERAL ELEMENTARY PHYSICS.** (7) Crawley
A general elementary course covering Mechanics, Wave Motion and Heat.

Other elementary and advanced courses will be given as the need for them arises.

Full Quarter

- 3a **GENERAL COLLEGE PHYSICS.** (6) Koppius
An advanced general course covering Mechanics of Solids, Liquids, and Gases. Lecture and recitations, four hours, laboratory, four hours. Prerequisites: College Algebra and Trigonometry, Mathematics 19; College Chemistry; or equivalent; concurrent: Mathematics 20a.

Second Term

- *52 **INTRODUCTION TO PHYSICS.** (3) Webb
A lecture demonstration course covering the subjects of Electricity and Magnetism.
- *7b **GENERAL ELEMENTARY PHYSICS.** (7) Crawley
A course covering Magnetism and Electricity, Sound and Light.

Other elementary and advanced courses will be given in Physics as the need for them arises.

* Open to Freshmen.

POLITICAL SCIENCE
For Graduation Requirements See Catalog

First Term

- *15 PROBLEMS OF CITIZENSHIP. (5)** Staff
Public opinion, the newspaper, advertising, the modern economic system, labor problems, unemployment, agriculture, conservation and the race problem.
- *51 AMERICAN GOVERNMENT. (5)** Staff
A survey course in the structure and operation of the Federal Government.
- 165 WORLD POLITICS. (5)** 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.
- 171b MODERN POLITICAL THEORY. (5)** Staff
Detailed study of Machiavelli, Hobbes, Locke, Rousseau, Millard, and the theories of the American and French Revolutions, the English Utilitarians, Democratic Political Theory, Socialism, Communism.

Second Term

- *51 AMERICAN GOVERNMENT. (5)** Staff
A survey course in the structure and operation of the Federal Government.
- 80 STATE GOVERNMENT. (5)** Staff
A study of the forms and functions of government in operation in the states of the United States.
- 160 AMERICAN FOREIGN RELATIONS. (5)** Staff
An examination of the chief principles and problems of American foreign policies; the part of the House, the Senate, the Courts and the President in the initiation, conduct and control of foreign policies; the organization of the Department of State, the selection of personnel, the status and duties of foreign service officers.
- 168 THE GOVERNMENTS AND POLITICS OF EASTERN ASIA. (5)** Staff
An introductory study of the political institutions of China, Japan, the Philippines, the Dutch East Indies and India. Constitutional principles, governmental organization, the party systems, current political issues and contemporary problems of international relations.

PSYCHOLOGY

For Graduation Requirements See Catalog

First Term

- *1 INTRODUCTION TO PSYCHOLOGY. (6)** Dimmick
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.

* Open to Freshmen.

- *2 APPLIED PSYCHOLOGY. (4)** Beaumont
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:** Psy. 1 or equivalent.
- 7 PSYCHOLOGY OF THE CHILD. (4)** Asher
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:** Psy. 1 or equivalent.
- 8 INDIVIDUAL DIFFERENCES. (4)** Newbury
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. **Prerequisite:** Psychology 1 or equivalent.
- 5 PSYCHOLOGY OF ADVERTISING AND SELLING. (4)** 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. **Prerequisite:** Psy. 1 or equivalent.
- 115 GENETIC PSYCHOLOGY. (4)** 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:** Psy. 1 or equivalent.
- 106 INDUSTRIAL PSYCHOLOGY. (4)** 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. **Prerequisite:** Psychology 1 or equivalent.

Second Term

- *1 INTRODUCTION TO PSYCHOLOGY. (6)** Newbury
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.
- *6 PERSONALITY. (4)** Dimmick
An introductory course in the field of personality with special emphasis on the biological and social factors involved in personality development. **Prerequisite:** Psy. 1 or equivalent.
- *2 APPLIED PSYCHOLOGY. (4)** Beaumont
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:** Psy. 1 or equivalent.

* Open to Freshmen.

- 7 PSYCHOLOGY OF THE CHILD. (4)** Asher
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: Psy. 1 or equivalent.
- 8 INDIVIDUAL DIFFERENCES. (4)** 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. Prerequisite: Psychology 1 or equivalent.
- 104 SOCIAL PSYCHOLOGY. (4)** 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: Psy. 1 or equivalent.
- 114 ABNORMAL PSYCHOLOGY. (4)** 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: Psy. 1 or equivalent.
- 105 EMPLOYMENT PSYCHOLOGY. (4)** 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. Prerequisite: Psychology 8 or equivalent.
- 121 STUDENT PERSONNEL. (4)** White
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. Prerequisite: Psychology 1.

ROMANCE LANGUAGES AND LITERATURES

For Graduation Requirements See Catalog

First Term

- *1a ELEMENTARY FRENCH. (5)** Schick
This course consists of a thorough drill in pronunciation using phonetics, elementary grammar including the study of nouns, personal pronouns, adjectives, 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.

* Open to Freshmen.

- *1b ELEMENTARY FRENCH.** Schick
A continuation of 1a. Second half of course includes other parts of the sentence, more difficult sentences, ease in reading and a knowledge of France, its institutions and people. **Prerequisite:** 1a or one year of high school French.
- 2a INTERMEDIATE FRENCH. (4)** Schick
Supplementary reading. A good pronunciation, a thorough knowledge of grammar and verbs, reading and conversation are the aims of this course. Rapid reading of ordinary French and the ability to express oneself in French are stressed. **Prerequisites:** 1a-b or 2 yrs. high school French.
- 8a FRENCH PHONETICS. (4)** Schick
A scientific study of French sounds based on the international system of phonetic symbols. **Prerequisites:** 2a-b.
- 3a FRENCH CONVERSATION AND COMPOSITION. (3)** 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.
- *5a ELEMENTARY SPANISH. (5)** Server
Fundamentals of the Spanish Language, reading in a simple reader. The purpose of this course is the learning of the essentials of Spanish Grammar and the acquisition of a practical vocabulary.
- *5b ELEMENTARY SPANISH. (5)** Server
A continuation of 5a. **Prerequisite:** 5a or 1 year high school Spanish.
- 7a INTERMEDIATE SPANISH. (4)** Horsfield
Review of grammatical principles, composition work, reading Spanish prose and literature. **Prerequisites:** 5a-b or equivalent.
- 9a SPANISH NOVEL AND DRAMA. (4)** Server
Prerequisites: 7a-b.
- 113a ADVANCED FRENCH GRAMMAR. (4)** Schick
- 114a INDEPENDENT WORK. (4)** Staff
- 116a FRENCH LITERATURE OF THE XX CENTURY. (4)** Horsfield
- 106b SPANISH LITERATURE OF THE XX CENTURY. (3)** Server

Second Term

- *1b ELEMENTARY FRENCH. (5)** Schick
A continuation of 1a. Second half of course includes other parts of the sentence, more difficult sentences, ease in reading and a knowledge of France, its institutions and people. **Prerequisite:** 1a or one year of high school French.
- *2a INTERMEDIATE FRENCH. (4)** Schick
Supplementary reading. A good pronunciation, a thorough knowledge of grammar and verbs, reading and conversation are the aims of this course. Rapid reading of ordinary French and the ability to express oneself in French are stressed. **Prerequisites:** 1a-b or two years of high school French.

* Open to Freshmen.

- *5b **ELEMENTARY SPANISH.** (5) Server
 A continuation of 5a. Prerequisite: 5a or one year of high school Spanish.
- 7a **INTERMEDIATE SPANISH.** (4) Server
 Review of grammatical principles, composition work, reading Spanish prose and literature. Prerequisites: 5a-b or two years of high school Spanish.
- 114a, b, c **INDEPENDENT WORK.** (4) Staff
- 113b **ADVANCED FRENCH GRAMMAR.** (4) Schick
- 116b **FRENCH LITERATURE OF THE XX CENTURY.** (4) Schick
- 108b **SPANISH AMERICAN LITERATURE.** (4) Server
 A study of the representative writers and principal literary productions of Spanish America.
 Continuation of 108a. Prerequisites: 9a and b or equivalent.

SOCIAL WORK

For Graduation Requirements See Catalog

First Term

- 105 **CHILD WELFARE SERVICES.** (4)
 A study of the development of provisions for the protection and care of children with special attention to Child Welfare Services, Mother's Aid, Juvenile Courts and Child Labor Legislation.
- 122 **FIELDS OF SOCIAL WORK.** (4)
 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.
- 151 **PUBLIC ASSISTANCE.** (2)
 A study of the current function of public assistance on the federal, state, and local levels with emphasis on the old age assistance, blind assistance, aid to dependent children, general relief, and work relief.

SOCIOLOGY

For Graduation Requirements See Catalog

First Term

- *1 **INTRODUCTORY SOCIOLOGY.** (5) Best
 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.
- 103 **CRIMINOLOGY.** (4) * 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.

* Open to Freshmen.

Second Term

*2 MODERN SOCIAL PROBLEMS. (5) Sanders

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.

109 THE FAMILY. (4) Sanders

A study of the family both in its historical aspects and in connection with modern life.

ZOOLOGY

For Graduation Requirements See Catalog

First Term

*1a GENERAL ZOOLOGY. (4) Allen

A general course in zoology consisting of lectures, recitations and laboratory work. The first quarter is devoted primarily to the study of the invertebrates.

101a HISTOLOGY. (4) Brauer

Histology of the tissues. A course in the technique of the preparation of animal tissues for microscopic study. Practice in embedding, staining, sectioning (mounting and identification of tissues. Prerequisites: Zoology 1a, b, c.

102 ORNITHOLOGY. (4) 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.

108a PRINCIPLES OF ZOOLOGY. (3) 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.

110a-f INDEPENDENT WORK. (4) Staff

Special problems for individual students who are capable of pursuing independent investigations. For Zoology Majors.

Second Term

*1b GENERAL ZOOLOGY. (4) Allen

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.

106 EMBRYOLOGY. (6) Brauer

A general course in ontogeny. Studies in maturation, fertilization, cleavage, organogenesis and anomalies of development with laboratory work based on the chick and pig. Prerequisites: Zoology 1a, b, c, 101a.

108b PRINCIPLES OF ZOOLOGY. (3) Funkhouser

(Heredity.) A continuation of Course 108a. The second quarter is devoted to the study of heredity, eugenics and animal instincts.

110a-f INDEPENDENT WORK. (4) Staff

Special problems for individual students who are capable of pursuing independent investigations. For Zoology Majors.

* Open to Freshmen.

COLLEGE OF AGRICULTURE AND HOME ECONOMICS

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

LEVI JACKSON HORLACHER, M.S., Assistant Dean in Resident Teaching

AGRONOMY

First Term

- 105 **ADVANCED CROPS: TOBACCO AND CEREALS.** (4) 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.
Prerequisites: Agr. 1; Botany 1b.

AGRICULTURAL ENTOMOLOGY

Second Term

- 1 **AGRICULTURAL ENTOMOLOGY.** (4) 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.
- 102 **ECONOMIC ENTOMOLOGY.** (4) 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.

ANIMAL INDUSTRY

First Term

- 1 **FARM LIVESTOCK PRODUCTION.** (5) 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.
- 61 **GENETICS.** (4) 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.

Second Term

- 41 **FARM POULTRY PRODUCTION.** (4) 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.

- 106 **PORK PRODUCTION.** (4) Wilford
History and importance of the swine industry; selection, breeding, feeding and management of swine. Lectures, 3 hours; laboratory, 2 hours. Prerequisites: A. I. 1, 81.
- 141 **ADVANCED POULTRY PRODUCTION.** (5) 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.

ANIMAL PATHOLOGY

First Term

- 103 **ANIMAL HYGIENE.** (4) Dimock, 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. Prerequisites: A. P. 101 and 102, or approval of instructor.

FARM ENGINEERING

First Term

- 4b **FARM SHOP.** (3) 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 **SPECIAL PROBLEMS.** (4) 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.

HORTICULTURE

First Term

- 120 **LANDSCAPE GARDENING.** (3) 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.

MARKETS AND RURAL FINANCE

First Term

- 140 **AGRICULTURAL POLICY.** (5) 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 of remedial action. Prerequisite: F. E. 1.

RURAL SOCIOLOGY

Second Term

- 101 RURAL SOCIOLOGY. (3) Beers
Introductory study of rural people and their communities; the distribution, mobility and vitality of rural population; characteristics of the rural community, rural groups and institutions; orientation to rural community problems. Lectures, recitations, individual reports, 3 hours. Prerequisite: Soc. 1, or Economics 1.

HOME ECONOMICS

First Term

- 5 FOODS. (5) 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.
- 25 TEXTILES. (3) 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) 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.
- 42 INSTITUTION FOODS. (6) 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.
- 61 HOUSING. (4) 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.
- 101 PRINCIPLES OF NUTRITION. (4) Wooldridge
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) 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. Prerequisites: H. E. 6, 11.
- 127 ADVANCED CLOTHING. (4) 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.

137 ADVANCED CLOTHING PROBLEMS. (4) Seeds
Designed to suit the needs of the individual student. Some suggested problems are children's clothing; tailoring; remodeling; clothing economics; clothing for the family. Lectures, 2 hours; laboratory, 4 hours. Prerequisite: H.E. 127.

141 INSTITUTION ORGANIZATION AND ADMINISTRATION. (4) Helton
Principles of institution organization, types of institution services, modern industrial tendencies, advertising, personnel and financial control. Lectures, 3 hours; laboratory, 2 hours. Prerequisites: H.E. 41 and 42.

152 CHILD CARE AND DEVELOPMENT. (5) 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; includes observations of pre-school children and participation in nursery school activities. Meetings with parents are required. Lectures, 3 hours; laboratory, 4 hours. Prerequisites: A. & P. 3; Psy. 7.

153 ADVANCED CHILD DEVELOPMENT. (4) 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.

162b HOME MANAGEMENT AND FAMILY RELATIONSHIPS. (5) 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.

Second Term

2 NUTRITION AND PUBLIC HEALTH. (3) Wooldridge
Nutrition as it affects family and social problems. Consideration is given to the food budget on different economic levels. Not open for credit to students registered in Home Economics.

6 FOODS. (4) 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.

27 CLOTHING. (5) 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. Lectures, 2 hours; laboratory, 6 hours. Prerequisites: H. E. 25, 26.

107 WORKSHOP IN NUTRITION. (5) 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.

- 114 **FOOD PRESERVATION. (3)** Helton
The principles of preserving food by drying, canning, pickling, salting and quick freezing. Practice in the canning of fruits, vegetables and meats; the pickling of fruits and vegetables and making of jellies and preserves. Prerequisites: Bact. 52 and H. E. 5.
- 125 **ADVANCED TEXTILES. (3)** Sumner
Individual term problems. Lectures, 3 hours. Prerequisites. H. E. 25, Econ. 1.
- 126 **ADVANCED COSTUME DESIGN. (4)** Seeds
A survey of costume throughout the ages. Planning of modern costumes. Lectures, 2 hours; laboratory, 4 hours. Prerequisite: H. E. 26.
- 129 **INTERIOR DECORATION. (4)** 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. Prerequisites: H. E. 25, Art 30b.
- 142a **INSTITUTION MANAGEMENT. (4)** 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.
- 154 **FAMILY LIVING (4)** 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. Prerequisites: H. E. 61, 152, Econ. 1, Soc. 1 or R. S. 101.
- 155 **THE CHILD AND HIS CLOTHING. (3)** 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)** 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; construction of toys. Lectures and laboratory.
- 161 **CONSUMER PROBLEMS. (4)** 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.
- 162b **HOME MANAGEMENT AND FAMILY RELATIONSHIPS. (5)** 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.

COLLEGE OF ENGINEERING

JAMES HIRAM GRAHAM, C. E., Dean
DANIEL VOIERS TERRELL, C.E., Assistant Dean

Full Quarter Courses

CIVIL ENGINEERING

- 13 **ADVANCED SURVEYING.** (4) Shaver
Triangulation and base line measurements, precise and trigonometric leveling, hydrographic surveys, map projection and plotting topographic mapping by the stadia method. Class work, 3 hours a week; field work, 3 hours a week. Prerequisite: Civ. Eng. 12.
- 31 **HIGHWAY LOCATION, CONSTRUCTION, AND MAINTENANCE.** (3) Chambers
Principles of location, topographic conditions, economic considerations, benefits and costs. Materials and types of road, and general maintenance. Lectures and recitations, 3 hours a week.
- 35 **HIGHWAY MATERIALS.** (2) Chambers
Methods of testing stone, gravel, sand, brick, culvert pipe, cement, concrete, and other highway materials. Laboratory, 4 hours a week. Prerequisite or concurrent: Civ. Eng. 31.
- 81 **TESTING MATERIALS.** (2) 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.
- 113 **GEODESY, PRECISE SURVEYING, AND LEVELING.** (4) Shaver
Methods of making and adjusting observations in triangulation systems, and precise traverse. Observation and calculation for determining time, azimuth, latitude and longitude. Lectures and recitations, 3 hours a week; field work, 3 hours a week. Prerequisites: Math. 11, 12; Civ. Eng. 13.
- 181b **INDEPENDENT PROBLEMS.** (3) Staff
Continuation of Civ. Eng. 181a. Conference, laboratory or drawing room, 7 hours a week. Prerequisite: Civ. Eng. 181a.

SANITARY ENGINEERING

- 151 **WATER SUPPLY AND WATERWORKS.** (3) 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) Cheek
Sanitary and storm sewer system; theory of design; method of disposal. Lectures and recitations, 3 hours a week. Prerequisite: Civ. Eng. 120.

153 DESIGN OF WATERWORKS AND SEWERS. (2) Cheek
Design of water supply system, storm and sanitary sewers, and disposal plants. Specifications and estimates of cost. Lecture, 1 hour; drawing room, 6 hours a week. Prerequisite or concurrent: San. Eng. 151, 152.

156 WATER AND SEWER PLANT OPERATION. (2) 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, 152.

ELECTRICAL ENGINEERING

11 ELECTRICAL LABORATORY. (1) 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, servicability, safety, and costs are emphasized. Laboratory, 2 hours.

21 PRINCIPLES OF ELECTRICAL ENGINEERING. (6) Barnett
(For Electrical Engineers.) A first course in electrical engineering. A study of the application of the fundamental laws of electric, magnetic, and dielectric circuits. Classroom, 5 hours; laboratory, 2 hours. Prerequisites: Phys. 3b; Math. 20a.

105 DIRECT CURRENT CIRCUITS AND MACHINERY (6) Bureau
(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.

107 ELECTRICAL CONTROL. (4) 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 functions. Classroom, 3 hours; laboratory, 2 hours. Prerequisites: Elec. Eng. 116, 106 or 101.

108 ELECTRONIC CONTROLS. (4) 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. Prerequisites: Phys. 114, Elec. Eng. 116, 106 or 101.

123 ELECTRICAL EQUIPMENT PROBLEMS. (3) Romanowitz
(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. Prerequisites: Elec. Eng. 116; Math 105a.

151a ELECTRICAL ENGINEERING SEMINAR. (1) Staff
Weekly meeting with staff for reports and discussion on research and modern trends and practices in Electrical Engineering. 2 hours. Prerequisite: Senior Standing.

ENGINEERING—GENERAL

Applied Mechanics

- 3 STATICS. (5)** 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. **Prerequisites:** Phys. 3a, Math. 20a. **Prerequisite or Concurrent:** Math 20b.
- 100 STRENGTH OF MATERIALS. (5)** 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.
- 107 MECHANICAL VIBRATIONS. (5)** Hawkins
Vibrations of systems of one and several degrees of freedom, balancing of rotating machines, critical speeds, torsional and lateral vibrations of shafts. Lectures and recitations, 5 hours a week. **Prerequisites:** Math. 105a, Appl. Mech. 4 and either Appl Mech. 100 or 104.

Engineering Administration

- 102 ENGINEERING ADMINISTRATION. (4)** 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)** Nollau and Horine
Freehand lettering, exercises in the use and care of drawing instruments, principles of orthographic and axonometric projection, technical sketching, tracing and reproduction of drawing. Three 2-hour periods a week.
- 1b ELEMENTARY ENGINEERING DRAWING AND DESCRIPTIVE GEOMETRY. (3)** 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 2-hour periods a week. **Prerequisite:** Eng. Draw. 1a.

MECHANICAL ENGINEERING

- 104a ENGINEERING THERMODYNAMICS. (4)** Walton
Covering the fundamental principles of thermodynamics. Carnot cycle entropy and enthalpy. A study of the thermodynamic equations for gases and vapors, steam power plant cycles, reciprocating engines and turbines, reheating and regenerative cycles. Recitations, 4 hours a week. **Prerequisite:** Phys. 3a. **Prerequisite or Concurrent:** Math. 20b

- 104b **ENGINEERING THERMODYNAMICS.** (3) Walton
Continuation of Mech. Eng. 104a. Recitation, 3 hours a week.
- 108 **INTERNAL COMBUSTION ENGINES.** (5) 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. 104b.
- 113b **MECHANICAL LABORATORY** (2) West
Performance tests on heating, ventilating, and power plant equipment. Lecture, 1 hour; laboratory, 3 hours a week. **Prerequisite:** Mech. Eng. 113a.
- 120 **MECHANICAL ENGINEERING PROBLEMS.** (5) West
This comprises the complete design and possibly the construction of a machine or an apparatus, or the complete design and specifications for a power plant, heating, ventilating and air conditioning system or industrial shop, including the management and direction of underclass assistants who will be assigned for such work when and as required; together with the estimating of the costs and time required to perform the work. Lectures and laboratory, 15 hours a week. **Prerequisite:** Senior Classification.

METALLURGICAL ENGINEERING

- 26 **ENGINEERING METALLURGY.** (3) 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 recitation, 3 hours a week. **Prerequisite:** Chem. 1b or 2b.
- 29 **METALLURGY OF THE FERROUS METALS.** (4) 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.
- 166a **EXTRACTIVE METALLURGY.** (5) Crouse
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 a week, with reference reading and problems. **Prerequisites:** Chem. 1b, Phys. 3b, Math. 20a, Met. 27.

Note: Other courses in Metallurgical Engineering will be given as needed.

COLLEGE OF LAW

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

First Term

154 DAMAGES. (2½) 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, eminent domain.

152 OIL AND GAS (2½) 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.

C183 LANDLORD AND TENANT. (2½) 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.

C174 CREDIT TRANSACTIONS (MORTGAGES) (2½) Randall

Casebook to be announced.

Nature and elements of a mortgage, legal and equitable, real and personal; incidents of the mortgage relation, right to possession and remedies of the mortgagee; discharge by payment, tender and merger; subrogation; assignments; redemption; foreclosure; extent of the lien, priorities between liens and competing claimants; and conveyance of the equity of redemption.

Second Term

141 PARTNERSHIP. (2½) 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, termination of partnership.

C180 LABOR LAW. (2½)

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.

177 STATUTORY INTERPRETATION. (2½)

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, repeal of statutes.

C148 DOMESTIC RELATIONS. (2½)

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; parents and child; custody, services and earnings, torts to children, torts by children, adoption, bastardy, infancy—voidable acts, disaffirmance, ratification, contracts for necessities, liability for torts, insanity, drunkenness, aliens.

COLLEGE OF EDUCATION

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

AGRICULTURAL EDUCATION

First Term

- 175a **MODERN EDUCATIONAL PROBLEMS**
(The Job of the Teacher in Vocational Agriculture). (4)
Hammonds, Armstrong, and Tabb
A brief survey of some of the problems in modern education.
- 179 **DETERMINING CONTENT IN VOCATIONAL AGRICULTURE.** (4) Hammonds
Interpretation of data as a basis for course building. Each student works out the content of a four-year course in vocational agriculture.
- 226a **PROBLEMS OF THE SECONDARY SCHOOL CURRICULUM** (Planning a Program in Vocational Agriculture). (4) Hammonds
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.
- 287f **YOUNG-FARMER SCHOOLS.** (4) Armstrong and Tabb
Content and method of teaching young-farmer courses in vocational agriculture.

Second Term

- 280 **METHOD IN TEACHING VOCATIONAL AGRICULTURE.** (4) Hammonds
The principles of method applied to the teaching of agriculture
Prerequisite: Experience in teaching vocational agriculture.
- 287a **ADVANCED PROBLEMS IN AGRICULTURAL EDUCATION.** (5) Hammonds and Woods
Specific problems selected according to the needs of the group.
- 287d **DIRECTING FARM PRACTICE.** (4) Hammonds
Farm practice as a method of teaching; standards, planning supervision, records.
- 289a, b **RESEARCH IN AGRICULTURAL EDUCATION.** (5) Hammonds and Woods
Individual problems of importance to agricultural education.

BUSINESS EDUCATION

First Term

- 158a **TEACHING SECRETARIAL SUBJECTS.** (3) Thomas
Special techniques and devices for teaching shorthand, typewriting, and secretarial office practice. Required of business education majors.

- 184 **TEACHING OFFICE APPLIANCES.** (3) 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.
- 208a-d **PROBLEMS IN BUSINESS EDUCATION.** (4) 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.
- 257a, b **SEMINAR IN BUSINESS EDUCATION.** (1) Lawrence
A study of current literature in business education with special reference to trends in this field.
- 260 **TEACHING CONSUMER COURSES IN THE HIGH SCHOOL.** (4) 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.

Second Term

- 158b **TEACHING ACCOUNTING.** (3) Lawrence
Materials and techniques used in the teaching of accounting. Required of business education majors.
- 184 **TEACHING OFFICE APPLIANCES.** (3) 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.
- 208a-d **PROBLEMS IN BUSINESS EDUCATION.** (4) 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) Lawrence
An examination of the various social business subjects, to determine their contribution to the objectives of business education.
- C259 **THE COMMERCE CURRICULUM.** (4) 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.

DISTRIBUTIVE OCCUPATIONS

First Term

- 112 **DETERMINING TEACHING CONTENT IN DISTRIBUTIVE OCCUPATIONS.** (4) 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.

**116 PROBLEMS OF THE COORDINATOR IN
DISTRIBUTIVE OCCUPATIONS. (4)**

Baker

Problems facing the coordinator as he acts in the capacity of intermediary 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.

EDUCATIONAL ADMINISTRATION

First Term

101 SCHOOL ORGANIZATION. (5)

Meece

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.

175d MODERN EDUCATIONAL PROBLEMS. (Workshop for

Teachers in Three-Way Schools—June 11-29). (4) Seay and Molloy
A brief survey of some of the problems in modern education.

175e MODERN EDUCATIONAL PROBLEMS (Workshop

on Community Improvement—June 30-July 18). (4) Molloy
A brief survey of some of the problems in modern education.

210 SPECIAL PROBLEMS IN SCHOOL ADMINISTRATION

**(Workshop for Teachers in Three-Way Schools—
June 11-29). (4)**

Seay and Molloy

An independent work course for students doing their first year of graduate work in education. Prerequisite: Educ. 101 or 202.

225a SUPERVISION OF INSTRUCTION. (4)

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.

**233 THE ADMINISTRATION OF THE TEACHING
PERSONNEL. (4)**

Meece

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.

Second Term

**175a, b MODERN EDUCATIONAL PROBLEMS (Workshop
for Resources-Use Education). (4)**

Seay and Patterson

A brief survey of some of the problems in modern education.

202 LOCAL SCHOOL ADMINISTRATION. (5)

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.

210 SPECIAL PROBLEMS IN SCHOOL ADMINISTRATION.

(4) Seay and Meece

An independent work course for students doing their first year of graduate work in education. Prerequisite: Education 101 or 202.

226a. b PROBLEMS OF THE SECONDARY SCHOOL CURRICULUM

(Workshop for Resource-Use Education). (4) Seay and Patterson

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.

EDUCATIONAL PSYCHOLOGY

First Term

**C118 EDUCATIONAL TESTS AND MEASUREMENTS FOR
ELEMENTARY TEACHERS. (5)**

Ross

The problems of measurement in the elementary school; formal and informal tests; marking systems, etc. Prerequisite: One quarter of Psychology.

**122 EDUCATIONAL TESTS AND MEASUREMENTS FOR HIGH
SCHOOL TEACHERS. (5)**

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.

223 EDUCATIONAL STATISTICS. (5)

Ross

A non-mathematical study of the applications of statistical and graphical methods to educational data.

Second Term

**C118 EDUCATIONAL TESTS AND MEASUREMENTS FOR
ELEMENTARY TEACHERS. (5)**

Ross

The problems of measurement in the elementary school, formal and informal tests, marking systems, etc. Prerequisite: One quarter of Psychology.

**122 EDUCATIONAL TESTS AND MEASUREMENTS FOR
HIGH SCHOOL TEACHERS. (5)**

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.

254 PROBLEMS IN EDUCATIONAL PSYCHOLOGY. (4)

Ross

A critical survey of the conflicting schools of psychology, theories of learning, etc. Prerequisite: One year of Psychology.

ELEMENTARY EDUCATION

- C133 STUDENT TEACHING IN THE ELEMENTARY SCHOOL. (9)** Duncan and Supervising Teachers
A course designed to give the student experience with and practice in the program of a modern elementary school. **Prerequisites:** Education 44, senior standing in the elementary curriculum.

- 172 TEACHING READING IN THE ELEMENTARY SCHOOL. (5)** Duncan
A practical application of principles derived from psychology and research, with discussion of aims, primary readings, activities leading to reading, reading in the intermediate grades, oral and silent reading, phonics, diagnostic and remedial work, means of testing, suitable material for each grade.

- 175e MODERN EDUCATIONAL PROBLEMS (Workshop for Helping Teachers.) (4)** Duncan and Wilhoit
A brief survey of some of the problems in modern education.

- C196 SCIENCE IN THE ELEMENTARY SCHOOL. (4)** Estelle 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)**
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.

Second Term

- 20 INDUSTRIAL ARTS FOR ELEMENTARY GRADES. (3)** 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.
- 110 ADVANCED INDUSTRIAL ARTS. (3)** 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.
- 173 TEACHING LITERATURE TO CHILDREN. (5)** 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.

- 229 **THE ELEMENTARY PRINCIPAL.** (5) 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.

HISTORY OF EDUCATION

Second Term

- 220 **COMPARATIVE EDUCATION.** (4) Taylor
 Comparisons of modern national systems of education.

HOME ECONOMICS EDUCATION

First Term

- C226a **PROBLEMS OF THE SECONDARY SCHOOL CURRICULUM**
 (Cannery Workshop—May 28-June 9). (3) Parker, Spickard, and Sneed
 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.
- 226c **PROBLEMS OF THE SECONDARY SCHOOL CURRICULUM**
 Home Economics Education Curriculum and Evaluation Workshop—June 11-27). (4) Parker, Spickard, and Sneed
 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.
- 226d **PROBLEMS OF THE SECONDARY SCHOOL CURRICULUM (The Teaching of Child Development and Family Relationship Workshop—June 28-July 18).** (4) Parker, Spickard, and Sneed
 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.

Second Term

- 263 **CURRENT PROBLEMS IN HOME ECONOMICS EDUCATION—**
 (July 19-August 7). (4) Parker
 Recent developments in the field of home economics education. Prerequisites: Education 160 and 162; experience in teaching.
- 263 **CURRENT PROBLEMS IN HOME ECONOMICS EDUCATION**
 (For Emergency Teachers—August 8-25). (4) Spickard
 Recent developments in the field of home economics education. Prerequisites: Education 160 and 162; experience in teaching.
- 266a-c **SEMINAR IN HOME ECONOMICS EDUCATION**
 (July 19-August 7). (3) Parker
 Individual investigations and reports on special problems in home economics education.

INDUSTRIAL EDUCATION

First Term

- 71 TRADE ANALYSIS AND COURSE PLANNING. (4)** Hankins
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.
- 77 SHOP MANAGEMENT PROBLEMS. (3)** Hankins
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.
- 108 COORDINATION TECHNIQUES IN INDUSTRIAL EDUCATION. (3)** Hankins
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.
- 171a PRINCIPLES AND PHILOSOPHY OF INDUSTRIAL EDUCATION. (3)** Hankins
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.

Second Term

- 79 DETERMINING RELATED SUBJECTS CONTENT. (3)** Hankins
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.
- 171b PRINCIPLES AND PHILOSOPHY OF INDUSTRIAL EDUCATION. (3)** Hankins
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)** Hankins
The most approved methods in instructional management, including lesson planning, in the field of vocational industrial education.

MUSIC EDUCATION

Second Term

- 252 FIELD PROBLEMS IN MUSIC. (2)** 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)** Capurso
A course designed for graduate students who undertake research problems in music education, conducted in regular consultation with the instructor.

PHILOSOPHY OF EDUCATION

First Term

- 200b **PHILOSOPHY OF EDUCATION.** (4) Jesse E. Adams
An advanced course dealing with the philosophy underlying the larger educational problems of today. Prerequisite: 16 quarter hours in Education.
- 222 **METHODOLOGY OF EDUCATIONAL RESEARCH.** (4) 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.
- 234 **PROBLEMS IN CURRICULUM MAKING**
(Curriculum Workshop for Superintendents of Schools—June 11-29). (4) Adams, Jagers, and Duncan
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.
- 186 **VISUAL TEACHING.** (4) 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.
- 246 **MOTION PICTURES IN EDUCATION.** (4) Land
The history of the educational motion picture, technique in the use of films, educational scenario writing, grading and scoring films, and motion picture appreciation.

SECONDARY EDUCATION

First Term

- 105 **FUNDAMENTALS OF SECONDARY EDUCATION.** (4) Ligon
Laboratory methods of instruction: fundamental processes, control, operation, and administration.
- 153 **STUDENT TEACHING IN ENGLISH.** (9)
Esther Adams, Anderson, 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. Prerequisites: Education (see Professional Major); 27 quarter hours in English; senior standing.
- 154 **STUDENT TEACHING IN LANGUAGES.** (9)
Aims and objectives, courses of study, methods, tests, equipment, analysis of textbooks. The course includes observation and practice, five hours; and conferences, two hours. Prerequisites: Education (see Professional Major); 27 quarter hours in subject to be taught; senior standing.

- 155 **STUDENT TEACHING IN THE SCIENCES.** (9) Kelly
 Aims and objectives, course of study, methods, tests, equipment; general science, biology, physics, and chemistry. The course includes observation and practice, five hours; and conferences, two hours. **Prerequisites:** Education (see Professional Major); 27 quarter hours in subject to be taught; senior standing.
- 156 **STUDENT TEACHING IN MATHEMATICS.** (9) May
 Course of study, materials, methods, testing. The course includes observation and practice, five hours; and conferences, two hours. **Prerequisites:** Education (see Professional Major); 27 quarter hours in Mathematics; senior standing.
- 157 **STUDENT TEACHING IN THE SOCIAL STUDIES.** (9) Esther Adams, Peck, and Shipman
 Objectives, preparation of the teachers, courses of study, methods, supplementary materials, visual instruction, testing, professional helps. The course includes observation and practice, five hours; and conferences, two hours. **Prerequisites:** Education (see Professional Major); 27 quarter hours in subject to be taught; senior standing.
- 193 **STUDENT TEACHING IN BUSINESS EDUCATION.** (9) Humphreys
 Practice in junior business training; in shorthand; in typewriting; and in such other commercial subjects as are commonly taught on the secondary level. **Prerequisites:** Education (see Professional Major); 27 quarter hours in Commerce; senior standing.
- 232 **HIGH SCHOOL ADMINISTRATION.** (4) 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.

Second Term

- 105 **FUNDAMENTALS OF SECONDARY EDUCATION.** (4) Ligon
 Laboratory methods of instruction: fundamental processes, control, operation, and administration.
- 214a **THE SECONDARY SCHOOL.** (4) 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.

COLLEGE OF COMMERCE

EDWARD WIEST, M.A., Ph.D., Dean

First Term

- 1 PRINCIPLES OF ECONOMICS. (5)** Carter
The theory of production, consumption, value and distribution.
- 2 ECONOMIC HISTORY OF EUROPE. (4)** Jennings
A survey of conditions preceding the modern period with a more intensive study of the subsequent development of agriculture, industry, and finance.
- 4 RESOURCES AND INDUSTRIES. (4)** Carter
The economic factors which govern the utilization of world resources and the exchange of products.
- 7a PRINCIPLES OF ACCOUNTING. (5)** Beals
Instruction in the science and adaptation of the accounts of going concerns, together with sufficient practice to acquire proficiency.
- 9 BUSINESS ORGANIZATION. (4)** Ketchum
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.
- 13a SECRETARIAL PRACTICE, SHORTHAND. (4)**
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)**
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)** Thomas
This course combines shorthand and typewriting in the transcription of shorthand notes and the development of office proficiency. Accuracy and speed in transcribing are emphasized. Prerequisite: Com. 13a, 13b, 17a and 17b or their equivalent.
- 17a SECRETARIAL PRACTICE, TYPEWRITING. (3)**
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)** Thomas
 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: Com. 17a.
- 18 FILING. (2)**
 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.
- 105 MONEY AND BANKING. (4)** Ketchum
 Nature and functions of money; the importance of credit; relation of money and credit to prices; bank deposits and loans; complete study of our national banking system. Prerequisite: Com. 1.
- 106a INTERMEDIATE ACCOUNTING. (4)** Beals
 Principles of financial statement, arrangement and content. Corporation accounting. Accounting for consignment and installment sales. Prerequisites: Com. 7a-b.
- 107 STATISTICAL METHOD. (4)** 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.
- 124 STATE AND LOCAL TAXATION. (4)** 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.
- 127 INTERNATIONAL ECONOMIC POLICIES. (4)** Sullivan
 Modern fallacies respecting foreign trade; free trade; protectionism; preferential tariffs; colonial tariff policies; dumping; commercial treaties; control of raw materials; encouragement of shipping; international investments and the movement of capital; international debts; reparations.
- 132a C. P. A. PROBLEMS. (3)** Beals
 The course is designed to prepare students for C. P. A. examinations. Advanced accounting theory is stressed through the study of a wide range of problems. Prerequisites: Com. 106a-b.
- 147 AMERICAN BUSINESS LEADERS. (2)** 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.
- 156 BUSINESS REPORTS. (3)** 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.
- 215 SURVEY OF ECONOMIC THEORY SINCE THE AUSTRIAN SCHOOL. (4)** Wiest
 This course is virtually a continuation of Course 203.

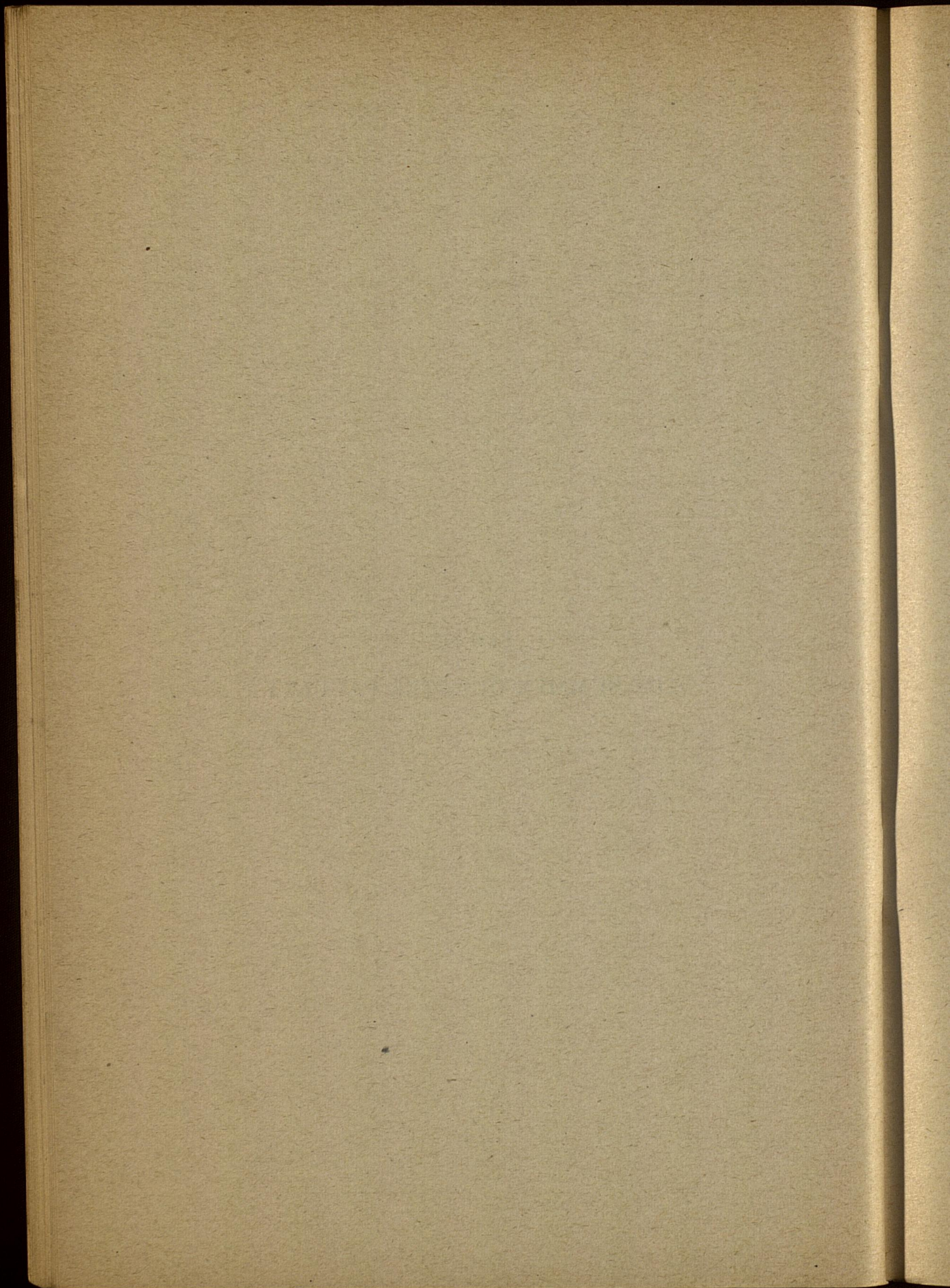
Second Term

- 3 ECONOMIC HISTORY OF THE UNITED STATES. (4)** Jennings
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.
- 7b PRINCIPLES OF ACCOUNTING. (5)** Beals
Continuation of 7a.
- 10 PRINCIPLES OF MARKETING. (5)** Sullivan
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.
- 13b SECRETARIAL PRACTICE, SHORTHAND. (4)** Thomas
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.
- 14b ADVANCED SECRETARIAL PRACTICE. (4)** 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. **Prerequisite:** Com. 14a or its equivalent.
- 15 APPLIED ECONOMICS. (4)** Sullivan
Fundamental aspects of money and banking, industrial efficiency, marketing, transportation, public utilities, public finance, social control, et cetera.
- 17a SECRETARIAL PRACTICE, TYPEWRITING. (3)**
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)**
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:** Com. 17a.
- 19 OFFICE APPLIANCES. (2)**
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.
- 102 LABOR PROBLEMS. (4)** Carter
Insecurity, wages and income, substandard workers, industrial conflict; wage theories; the economics of collective bargaining; unionism in its structural and functional aspects; recent developments. **Prerequisites:** Com. 1.

- 106b INTERMEDIATE ACCOUNTING. (4)** Beals
Accounting for partnerships, ventures, agencies and branches. Accounting features of insolvent concerns and of consolidations and mergers. Estate Accounting. Prerequisites: Com. 7a-b.
- 110 BUSINESS CYCLES. (4)** Palmer
The nature and characteristics of the economic factors which underlie the cyclical fluctuations in business conditions; the methods of business and investment forecasting. Prerequisites: Com. 1 and an elementary course in statistics.
- 132b C. P. A. PROBLEMS (3)** Beals
Continuation of 132a
- 145 OFFICE MANAGEMENT. (4)** Lawrence
Planning and scheduling of work; employment procedure; supervision of employees, retraining, promotion; equipment.
- 148 EUROPEAN BUSINESS LEADERS. (2)** 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.
- 154 URBAN REAL ESTATE. (4)** Ketchum
Urban land economics; the growth and planning of urban communities; survey of the real estate business and institutions; essentials of real estate law and contracts; the financing of real estate transactions; the problem of property valuation and appraisal; the management of real estate properties; the problem of ownership versus rental; the problem of real estate securities as investments. Governmental activities. Prerequisite: Com. 117.
- 155 INDUSTRIAL RELATIONS. (4)** 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; the public service

Part III

THE SUMMER QUARTER FACULTY



THE SUMMER QUARTER FACULTY

- 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*
- 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, GRACE, M.A.
English, University School
- ANDERSON, VIRGINIA FRANCES, B.S.
Instructor in Anatomy and Physiology
- ARMSTRONG, WATSON, M.A.
Instructor in Agricultural Education
- ASHER, ESTON JACKSON, M.A.
Associate Professor of Psychology
- BAKER, W. MAURICE, M.A.
*Professor of Education, Head of the Department of Distributive
Occupations*
- BARKENBUS, CHARLES, Ph.D.
Professor of Organic Chemistry
- BARKLEY, MARIE RODES, M.A.
Assistant Professor of Home Economics
- BARNHART, C. RAYMOND, M.A.
Assistant Professor of Art
- BARNETT, BRINKLEY, B.M.E.
Associate Professor of Electrical Engineering

- BEALS, WENDELL EVERETT, M.B.A., C.P.A.
Assistant Professor of Accounting
- BEAUMONT, HENRY, Ph.D.
Associate Professor of Psychology
- BEEBE, MORRIS WILSON, M.S.
Associate Professor of Metallurgical Engineering
- BEERS, HOWARD W., M.S., Ph.D.
Professor of Rural Sociology, Rural Sociologist, Experiment Station
- BELSER, CLARA HELEN, M.A.
Fifth Grade, University School
- BEST, HARRY, LL.B., Ph.D., LL.D.
Professor of Sociology
- BIGGE, ADOLPH E., M.A., Ph.D.
Professor of German, Head of the Department of German Language and Literature
- BOONE, ANNA BRUCE, A.B.
Fourth Grade, University School
- BOYD, PAUL PRENTICE, M.A., Ph.D., LL.D.
Professor of Mathematics, Head of the Department of Mathematics; Dean of the College of Arts and Sciences
- BRADY, GEORGE KEYPORTS, Ph.D.
Professor of English
- BRAUER, ALFRED, M.A., Ph.D.
Professor of Zoology
- BRIGGS, WALLACE EARL, A.B.
Speech and Dramatics, University School; Instructor in English
- BROWN, MARION CLAY, M.A.
Assistant Professor of Mathematics
- BULL, JACQUELINE, A.B.
Part-time Instructor in Library Science
- BUREAU, ERNEST ADOLPHE, B.S., Ph.D., E.E.
Professor of Electrical Engineering, Head of the Department of Electrical Engineering
- CALLAWAY, BERNICE, A.B. in Education
First Grade, University School
- CALLIHAN, ANNE W., A.B.
Assistant Professor of Art

- CAPURSO, ALEXANDER ALEXIS, B.S. in Mus., M.A., Ph.D.
Professor of Music, Head of the Department of Music
- CARTER, LUCIEN HUGH, M.A., Ph.D.
Professor of Economics
- CHAMBERLAIN, LEO MARTIN, 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 the University
Health Service*
- CHEEK, FRANK JACOBS, JR., 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*
- CLARK, THOMAS D., M.A., Ph.D.
Professor of History, Acting Head of the Department of History
- CLIFTON, LOUIS, M.A.
Director of University Extension
- COLE, CONSTANCE L., B.S.
Instructor in Anatomy and Physiology
- CONROY, KATHERINE, M.A.
Sixth Grade, University School
- COOPER, THOMAS P., B.S., D.Sc., LL.D.
*Dean of the College of Agriculture and Home Economics; Director
of Experiment Station; Director of Agricultural Extension
Division*
- CRAWLEY, CLYDE BROOKS, Ph.D.
Associate Professor of Physics
- CROUSE, CHARLES STEVENS, E.M.
*Professor of Metallurgical Engineering, Head of the Department
of Mining and Metallurgical Engineering*
- CULLIS, LELA,
Instructor in Applied Music (Organ)
- CUTLER, JOHN L., M.A.
Instructor in English

- DAWSON, LYLE R., M.S., Ph.D.
Professor of Chemistry, Head of the Department of Chemistry
- DIMMICK, GRAHAM B., Ph.D.
Professor of Psychology
- DIMOCK, WILLIAM WALLACE, D.V.M.
*Professor of Veterinary Science, Head of the Department of
Animal Pathology, Experiment Station*
- DONOVAN, HERMAN LEE, M.A., Ph.D., LL.D.
President of the University
- DOWNING, HAROLD H., B.C.E., M.S., Ph.D.
Professor of Mathematics (in Charge of Astronomy)
- DUNCAN, MAY KENNEY, M.A.
*Professor of Elementary Education, Head of the Department of
Elementary Education*
- ELLIOTT, NORRIS RAYMOND, B.S.
*Professor of Landscape Architecture and Floriculture, Field
Agent in Horticulture, Agricultural Extension Division*
- ERIKSON, STATIE ESTELLE, Ph.D.
*Professor of Home Economics, Head of the Department of Home
Economics*
- EVANS, ALVIN E., M.A., Ph.D., J.D.
Dean of the College of Law
- 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*
- FOWLER, FRANK CHARLES, M.A.
Associate Professor of English; Director of the Guignol Theatre
- FUNKHOUSER, WILLIAM DELBERT, M.A., Ph.D., Sc.D.
*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.
*Librarian, University School; Part-time Instructor in Library
Science*
- GINGER, LYMAN V., M.A. in Ed.
Acting Director of the University School

- GRAHAM, JAMES HIRAM, C.E.
Dean of the College of Engineering
- GREATHOUSE, GLADYS, M.A.
Speech and Dramatics, University School
- GULLETTE, ARTHUR T., M.A.
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