BULLETIN

UNIVERSITY OF KENTUCKY

SUMMER SESSION

1920

JUNE 21 TO JULY 31

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

Vol. 12 -:- No. 2

CALENDAR FOR 1920-1921

1920.		
Sept. 20-21	Mon. to Tues. 4 p. m.	Registration for 1st semester.
Sept. 22	Wednesday	Class work begins.
Nov. 25	Thursday	Thanksgiving holiday.
Dec. 17, 1920 to Jan. 4, 1921	Friday to Tuesday	Christmas holidays.
Jan. 29 to Feb. 5	Saturday to Saturday	Mid-year examinations.
Feb. 8	Monday	Registration for 2nd semester.
June 8		Commencement.

SUMMER SESSION

UNIVERSITY OF KENTUCKY

1920

Begins June 21; Ends July 31.

Through oversight the courses offered in the summer session in ROMANCE LANGUAGES were omitted in the Bulletin announcing the program for the summer session. Special attention is hereby called to these courses.

ROMANCE LANGUAGES

Professor Zembrod

Elementary French.—Single Course.
Intermediate French.—Single Course.
Elementary Spanish.—Double Course.

OFFICERS AND FACULTY OF THE SUMMER SESSION

FRANK L. McVEY, Ph. D., LI. D.,

President of the University

JAMES THOMAS COTTON NOE, A. M., Litt. D.,
Professor of Education
Director of the Summer Session

EZRA L. GILLIS, A. B.,
Registrar

GEORGE MARSHALL BAKER, A. M.,
Associate Professor of Education

MINA McLEOD BECK, A. M.,
Assistant Professor of Art and Design

STANLEY ATWOOD BOLES, A. M.,
Director Physical Education and Athletics

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Instructor in Home Economics

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in Transylvania College

PAUL PRENTICE BOYD, Ph. D.,
Dean College Arts and Science, Head Department Mathematics

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Assistant Professor of Sociology

JAMES MORTON DAVIS, A. M.,
Professor of Mathematics

JOHN BORN DICKER,
Instructor in Woodwork

HAROLD HARDESTY DOWNING, B. C. E., S. M.,
Associate Professor of Mathematics

EDWARD FRANKLIN FARQUHAR, A. M.,
Professor of English

GARNET W. FORSTER, B. S., M. S.,
Professor of Agricultural Economics

WILLIAM EDWIN FREEMAN, A. B., E. E.,
Professor of Electrical Engineering

WILLIAM D. FUNKHOUSER, Ph. D.,
Professor of Zoology and Head of Department

EDWIN STANTON GOOD, M. S.,
Professor of Animal Husbandry, Head of Department

JOHN SHERMAN HORINE, M. E.,
Assisant Professor of Drawing

LEVI JACKSON HORLACHER, B. S. in Agr.,
Assistant Professor of Animal Husbandry

McNEAL C. JAMES, B. S. in Agr., A. B.,
Professor of Agricultural Education

THEODORE TOLMAN JONES, A. M.,
Professor of Latin and Greek

CARL ALBERT LAMPERT,
Professor of Music, Head of Department

JAMES HOLMES MARTIN, B. S. in Agr.,
Assisant Professor of Poultry

COLUMBUS RUDOLPH MELCHER, A. M.,
Professor of German

JOHN RICHARD MITCHELL, A. B.,
Assistant Professor of Chemistry

ALBERT JACKSON OLNEY, B. S.,
Assistant Professor of Horticulture

McHENRY RHOADS, A. M., Ph. M.,
State Supervisor of Secondary Education

CHARLES ALBERT SHULL, Ph. D.,
Professor of Plant Physiology, Head of Department of Botany

GORDON THURMAN,
Assistant in Engineering Laboratory

JOHN JAMES TIGERT, M. A.,
Professor of Psychology, Head of Department

JAMES EDWARD TUTHILL, Ph. D.,
Professor of History and Political Science, Head of Department

FRANKLIN ELLIOTT TUTTLE, Ph. D.,
Professor of Chemistry, Head of Department

WILLIAM SNYDER WEBB, M. S.,
Professor of Physics, Head of Department

ALFRED CHARLES ZEMBROD, A. M.,
Professor of Romance Languages and Literature, Head of Department

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GENERAL STATEMENT

THE PURPOSES OF THE SCHOOL

The Summer School of the University of Kentucky will be in session June 21st to July 31st, a period of six weeks. The work of the summer session is designed for teachers, students and persons seeking information and training. With the instruction are to be given a number of special features during the six weeks of the session. From the program of studies it will be possible to make up plans of work suitable for teachers and workers in many fields. The entire plant of the University is available for use, including laboratories, libraries and buildings. The faculty of the University of Kentucky for the summer session of 1920 has been greatly enlarged. Work will be offered to satisfy the demands of teachers in every field of school activity. It is no longer necessary for the high school teachers of the State, the city superintendents and members of college faculies to leave the State for university work during the summer. The University of Kentucky is meeting the needs of the Sate in Agriculture, Engineering and all the Arts and Sciences. The multiplication and standardization of the high schools, the enlarged curricula of secondary schools and the new aims in education demand teachers qualified in many subjects and trained in the theories and practices of modern education, and the summer school of the University is organized largely to satisfy this demand.

LOCATION

Lexington, called the capital of the Blue Grass, is a beautiful little city, and a delightful place to spend the summer. It is accessible from all parts of the State, and may be reached over the following roads: Queen and Crescent, Southern, L. & N., C. & O., L. & E., now under the management of the L. & N. Railroad.

SPECIAL LECTURES

Special lectures of interest to teachers and other students will be given throughout the summer session by members of the faculty and other educators and men of distinction. Later announcements of non-resident lecturers will be made.

ADMISSION

No entrance examination is required for admission to any of the courses, but instructors must be consulted concerning prerequisite preparation in some courses.

CREDIT IN THE SUMMER SESSION

Students who have full entrance credits to the University will be given credit toward degrees for college work in the summer school.

Four semester credits will be given for one double course consisting of two hours a day for the session. Two semester credits will be given for a single course of one hour a day for the session.

No student wll be allowed to make more than eight semester credits in the summer school.

AGRICULTURAL AND VOCATIONAL EDUCATION

Exceptional advantages will be offered in the summer school to students who are qualifying to teach Agricultural and Vocational Education under the provisions of the Smith-Hughes Bill. Professor McNeal C. James will offer courses in Agricultural Education and in Educational Psychology which will especially fit students for the organization and presentation of vocational work in the high schools of the State. Courses are also offered in Horticulture, Soil Fertility, Animal Husbandry and Farm Crops.

GRADUATE WORK

Graduate work will be offered by special arrangement with the heads of departments and the Chairman of the Graduate Committee.

PATTERSON HALL AND BOARDING

Room and board may be had at Patterson Hall for $8 to $10 per week, according to the size and location of the room. Students must furnish their own linens. Application should be made for reservation in Patterson Hall before arriving.

The University Cafeteria will be open during the summer session; room and board may also be had in town at convenient distances from the campus.

COURSES AND FEES

The work in the summer school is given in Double and Single Courses. A Double Course means that the subject is taken two hours a day throughout the session. A Single Course is taken one hour a day for the full session. The fees are as follows:

Single Course	$ 5 00
Double Course	7.50
One Double and One Single Course	10.00
Three Single Courses	10.00

INFORMATION

For information address the Registrar, University of Kentucky, Lexington, Ky.

DEPARTMENTS OF INSTRUCTION

AGRICULTURE

Professors Good, Forster, Assistant Professors Olney, Martin, Horlacher

Farm Management.—This course will consist of 36 lectures and 12 three-hour laboratory periods. The lectures will deal with the principles involved in the choice of a proper type of farming; the comparative merits of intensive and extensive farming; the relation of live stock to farm management; the best size of farm; the relation of capital to farm profits; farm rental systems; the management of men and horse labor and machinery for greatest profits; tne layout of fields and farm buildings; farm accounts, including the annual inventory; the choice of a region for farming and important considerations in buying a farm; and other fundamental principles of farm organization.

The laboratory work will have two phases. The first phase will consist of field trips to successful and practical farms for the purpose of studying their organization in detail. These trips serve to bring out the personal element so essential in good farming and serve to reinforce and vitalize the truths of scientific agriculture as learned in the various other lecture and laboratory classes. The second phase will consist of practice work in farm accounts, including accounts of single crop or live stock enterprises and complete accounts on all of the farm enterprises. Professor G. W. Forster.

HORTICULTURE

Vegetable Gardening.—This course will consist of a series of twenty-four lectures and twelve field laboratory exercises, four lectures and two laboratory periods per week. The lectures will include a discussion of such fundamental subjects as location and arrangement of gardens, soil management, seed selection and improvement, seed testing, preparation of hot-beds and cold-frames, and manures and fertilizers. The more important classes of vegetables and particularly those requiring special or unusual treatment will be studied in detail.

The subject of spraying as related to vegetable gardening. will be given attention in the lectures, and practice in the making and application of sprays will occupy a portion of the laboratory periods.

This midsummer session will provide an unusual opportunity to study many phases of vegetable gardening that cannot be observed so favorably during the usual college terms, and particular emphasis will therefore be placed upon the laboratory and field exercises. Assistant Professor Olney.

Fruit Growing.—Four lectures and two laboratory periods per week. The summer course in this subject is arranged to supplement the course offered by this department in the summer of 1919, and

the topics studied at that time will not be repeated in the present course, attention being directed mainly to apple orcharding and strawberry growing. The course will close, however, with a brief discussion of landscape horticulture with special reference to the improvement of home and school grounds.

The lectures on apple growing will include a consideration of soils and sites, propagation, selection of stock and choice of varieties both for home and commercial uses, care of the young and mature orchard, pruning, etc., with special emphasis laid upon the employment of an effective spray program. To this end several lectures and laboratory periods will be devoted to the preparation and application of the various kinds of spray materials, together with a study of numerous types of spraying and dusting apparatus used for the control of insect and fungus enemies.

Strawberries will be studied from the standpoint of propagation, variety, characters of both the standard and everbearing sorts, plant setting, culture, and harvesting and marketing. Assistant Professor Olney.

Farm Poultry Production.—This course treats of the production of poultry on the general farm. It includes the following subjects: Breeds, and varieties, feeding, housing, breeding, culling, incubation, brooding and the marketing of poultry products. In the study of breeds and varieties the student learns to identify all of the more common varieties of chickens and becomes familiar with the standard points for which they are judged in the show room. He also learns the purpose for which each breed is kept and the value of each breed to the poultry industry. In the study of feeding, rations are balanced, using the feeds that are available in the community from which the student comes. In the housing work the student not only becomes familiar with the essentials of a good poultry house but learns how to remodel without a great expenditure, the out-buildings which are found on many farms. In the breeding and culling work a definite program to follow in breeding up the farm flock to a high state of egg production, is mapped out. The laboratory work in culling thoroughly familiarizes the student with such points as the relation of the time of moulting and intensity of the shank and beak color to the hen's egg production. The student also secures a working familiarity with the more common incubators and brooders. In the marketing work he learns how to dry, pick poultry and candle eggs. Lectures six hours a week, laboratory three periods a week. Three credits. Double course. Assistant Professor MARTIN.

Animal Husbandry.—Two subjects are offered in Animal Husbandry, namely: (1) Breeds of Live Stock and Judging; and, (2) Live Stock Feeding. Each of these subjects is divided into two courses. This makes it possible for the students who pursued these courses

during the summer of 1919 to complete them in 1920 and also offers an opportunity for the students entering in 1920 to partially or entirely complete the work during one summer.

Breeds of Live Stock, Judging.—In this course a thorough study is made of the origin, history, development, introduction into America, and adaptibility to Kenturky conditions, of the leading breeds of Beef Cattle and Hogs. A great deal of attention is given to the elements of judging, including the use of the score card and practice in comparative judging according to the standards of the breeder and of the show ring. The student is made acquainted with the leading strains and blood lines through a study of the winnings of the various breeds at the principal shows and fairs and through the tracing of pedigrees of these prize-winning animals. Four lectures and two laboratory periods of two hours each per week. Two credits. Assistant Professor Horlacher.

Breeds of Live Stock Judging. This course is a continuation of the preceding one. It is designed for students who pursued the study of breeds in the 1919 summer school. The breeds of sheep, horses, jacks, and dairy cattle are considered. Eight lectures and four laboratory periods of two hours each per week. Four credits. Double course. Assistant Professor Horlacher.

Live Stock Feeding, Course No. 1.—In this course a study of the classes of nutrients of feed stuffs and the uses of each to the animal. A study is also made of the process of digestion, absorption, and assimilation. An exhaustive study is made of feed stuffs, nutritive ratios, feeding standards and of the principles underlying the balancing of rations for maintenance, growth, fattening, milk and work. During the last two weeks of this course a comprehensive study is made of the feeding of hogs, including the use of forage crops. Occasional visits are made to the college farm to inspect experiments in progress in the feeding of hogs. *Six lectures per week. Two credits.* Professor Good.

Live Stock Feeding, Course No. 2.—This course is a continuation of course No. 1 and will deal with the feeding of Beef Cattle, Dairy Cattle, Horses and Sheep. An inspection and study of the feeding of breeding and experimental animals on the college farm will be a part of the work. *Five lectures, one laboratory period of one hour per week. Two credits.* Professor Good.

Farm Dairying.—Instruction is given in the production of clean milk; the care and feeding of dairy cows and the management of the dairy herd; the construction of dairy barns and the marketing of milk. Students are taught to test milk for butter fat, acidity and use of the lactometor. The separation and care of cream; the ripening of cream and churning of butter. Practice is also given in the manufacture of soft cheese. *Two lectures and two laboratory periods per week.*

ART

Assistant Professor Beck

1a. Drawing and Painting.—Drawing from objects, cast, still life. Figure action drawing. Perspective. Outdoor sketching. Mediums, charcoal, watercolor, crayon. *Two hours daily.*

2a. Art Structure.—A careful study of the three elements of art: line, tone, color. Simple exercises in space filling, bringing out the principles of balance, rhythm, repetition, subordination, etc. Planning of borders and surface patterns. *Two hours daily.*

BOTANY

Professor Shull

General Botany.—A general survey of the plant kingdom, including classification, structure, function, distribution and uses of plants. Methods of collection and preservation of materials for class use. A course adapted to the needs of teachers of Botany in the high schools of the State. Double course.

Field Botany.—A study of the flowers and trees in the vicinity of Lexington, with field trips and laboratory studies. Principles of classification, distribution, and the general physiology of plants. Designed especially for teachers who wish to become familiar with plants in nature. Double course.

CHEMISTRY

Professor Tuttle, Assistant Professor Mitchell

1b. General Inorganic Chemistry.—Continuation of 1a. Chemistry of the metals. Lectures, class-room exercises and laboratory work. Prerequisite, Chemistry 1a. Assistant Professor MITCHELL.

3. Inorganic Preparations.—A practical laboratory course devoted to the preparation of inorganic compounds from the crude material. Pre-requisite, one half year's work in General Chemistry. Assistant Professor Mitchell.

4. Qualitative Analysis.—Laboratory work accompanied by recitation periods. Prerequisite, Chemistry 1b. Assistant Professor MITCHELL.

7. Organic Chemistry.—An elementary course for non-professional students. Prerequisite, Chemistry 1b. Assistant Professor MITCHELL.

8. Quantitative Analysis.—A laboratory course accompanied by lectures and class-room exercises. Gravimetric and volumetric methods of analysis are studied in detail. Prerequisite, Chemistry 4. Professor TUTTLE.

9. Quantitative Analysis.—A lecture and laboratory course devoted to the analysis of ores, alloys, etc. Prerequisite, Chemistry 8. Professor TUTTLE.

11. Agricultural Analysis.—An introductory course in quantitative analysis arranged for the students in the course in agriculture. The elements of quantitative analysis are studied with special reference to the constituents of soil, fertilizers and agricultural products. Prerequisite, one year's work in General Chemistry. Professor TUTTLE.

12. Advanced Agricultural Analysis.—A laboratory course having for its object the complete analysis of fertilizers, feeds, soils and agricultural products. Prerequisite, Chemistry 8 or 11. Professor TUTTLE.

14. Advanced Quantitative Analysis.—The analysis of iron and steel, slags and rocks. Prerequisite, Chemistry 9. Professor TUTTLE.

ECONOMICS AND SOCIOLOGY

Assistant Professor J. S. Cleland

Principles of Economics.—A study of production, distribution and consumption of wealth; the application of principles to some social and economic problems. Single course.

Principles of Sociology.—A study of social origins, social evolution, and social institutions and their relation to biology, psychology and economics. The study will be illustrated by references to concrete social problems. Double course.

Economic History of the United States.—An account of the national development in agriculture, manufacture, transportation, commerce and finance. Single course.

EDUCATION

Professors Bowers and James, Associate Professor Baker

3s. Problems in City School Administration.—A general course including a consideration of recent city surveys, city superintendents' annual reports, finances, age-grade distribution, standard units of measurement, and principles of constructive supervision. Lectures, class discussions, and reports on assigned readings. Double course. Associate Professor BAKER.

4s. History of Education.—A general course with particular reference to the 17th, 18th and 19th century theorists, emphasizing Milton, Locke, Rousseau and Montessori. Lectures, class discussions and reports on assigned readings. Lectures will be illustrated with lantern slides. Double course.

5s. Technique of Teaching.—A discussion of General and Special method, giving the background of psychology, and illustrated with lesson plans and the teaching of several subjects. Double course.

7s. Agricultural Education.—This course will deal with the organization and teaching of agricultural courses in the Kentucky

high schools. It is designed for those who have had courses in the fundamentals of agriculture in some Agricultural College. Double course.

8s. Educational Psychology.—The laws of mental development, structure and function. Special attention to the laws of memory, habit, attention and their application to education. Designed primarily for Smith-Hughes students. Double course.

14s. Principles of Social Education.—A study of the development of the social mind with special reference to education. Text-book, reading and reports. Double course.

ENGLISH

Professor Farquhar, Assistant Professor Mabie

1as. English Composition.—The principles of composition will be studied to facilitate a clear and accurate expression of thought. Themes will be required in the practice of writing of English and some study will be made of the art of composition as illustrated in collateral reading. Double course.

18s. The teaching of English Composition.—Discussion in this course will include problems of grammar, composition, speech and literature. Methods of teaching as they bear on the specific problems of teachers enrolled in the class will be considered. Single course.

114s. American Literature.—World events have put a new emphasis on the importance of American literature. The course is designed to show what Americanism is and to give some acquaintance with the American ideal as it has been expressed in literature. Double course.

16as. Literature of the Bible.—A literary study of the Bible by books. It is designed to show how the Bible depends on a literary interpretation for much of its beauty and truth. It will prepare the way for appreciation of literature generally because of the demand that literature identify itself with the highest thought and feeling. Single course.

110s. Shakespeare.—Intensive study of Shakespeare in tragedy. The course is both historical and literary. The Oxford edition is recommended in interests of a uniform text. Double course.

The Campus Playhouse.—The Campus Playhouse, the intimate theatre of the Department of English, will present a program of plays sometime during the Summer Session. Students of the Summer School in and out of English courses will be invited to make up the casts for the performances.

3as. History of English Literature.—This course is designed to make a general survey of English literature. Any period of literary activity may be selected as the instructor sees fit. Extensive readings

from selected masterpieces and reports will be required. Double course.

Sub-Freshman Composition.—The course is for young students who want to prepare for college entrance or remove conditions in high school English. Themes and reading will be required to meet their needs. Single course.

ELECTRICAL ENGINEERING AND DRAWING

Professor Freeman, Assistant Professor Horine, Mr. Dicker, Mr. Thurman

1a. Mechanical Drawing.—Required of all freshmen in Engineering. Comprising: (a) Freehand lettering: (b) Exercises in the use of instruments; (c) Projections from Pictorial Views and descriptions; (d) Exercises in tinting and shading; (e) Tracing; (f) Blue printing. Double course. Professor HORINE.

1b. Mechanical Drawing.—Continuation of Drawing 1a. Double course. Professor HORINE.

3a and 3b. Descriptive Geometry.—Required of all freshmen in Engineering. This work includes, first, the discussion of descriptive geometry as a branch of pure mathematics. Later comes a consideration of the application of descriptive geometry principles as an aid to engineering drawing. The lectures and recitations are supplemented by work in the drawing room. Prerequisite, Mathematics 2. Double course. Professor HORINE.

4a. Advanced Drawing.—Required of all sophomores in Engineering. Comprising: (a) Working drawings of parts of machines and complete machines, both detail and assembly; (b) Technical sketching; (c) Plotting of surveys. Prerequisites, Drawing 1a and 1b. Double course. Professor HORINE.

4b. Advanced Drawing.—Continuation of Drawing 4a. Double course. Professor HORINE.

Electrical Engineering

2. Direct Current Dynamos.—Required of juniors in Mechanical and Electrical Engineering. This course involves a more intensive study of direct current generators and motors than is covered in Course 1. Prerequisite, Electrical Engineering 1. Single course. Professor FREEMAN.

3. Alternating Currents.—Required of all juniors in Engineering. Elective for juniors or seniors in Industrial Chemistry. This work involves a study of the fundamental laws of alternating current measuring instruments, generators, motors, transformers and converters. Prerequisite, Electrical Engineering 1. Mathematics 7b (Calculus, second part), must have been completed or be taken co-ordinately. Single course. Professor FREEMAN.

7. **Dynamo Design.**—Required of juniors in Mechanical and Electrical Engineering. This work involves all the calculations necessary in the design of a direct current generator or motor, together with a complete set of detailed drawings. Each student is assigned an individual problem. Prerequisite, Electrical Engineering 1. Electrical Engineering 2 must have been completed or be taken co-ordinately. Double course. Professor FREEMAN.

9b. **Electrical Laboratory.**—Required of all juniors in Engineering. Elective for juniors or seniors in Industrial Chemistry. This is a continuation of Course 9a and is intended to parallel Course 3. Prerequisite, Electrical Engineering 9a. Electrical Engineering 3 must have been completed or be taken co-ordinately. *Two hours a day, twice a week.*

Mechanics of Engineering

6. **Analytical Mechanics.**—Required of all juniors in Engineering. This subject is given with a view of encouraging original analysis, logical proofs and rational conclusions with respect to the treatment of the equilibrium and motion of bodies under the action of forces. The application of the fundamental principles of mechanics to engineering problems is treated in a way calculated to interest the student in the application of analytical mechanics in his engineering work. Prerequisite, Physics 3a. Mathematics 7b (Calculus, second part), must be completed or taken co-ordinately. Double course. Professor FREEMAN.

Practical Mechanics

1. **Wood Working.**—Required of all freshmen in Engineering. This work includes: (a) Recitations on the forms of wood-working tools and the cutting and peculiarities of timber. (b) Lectures on the operation of the various forms of wood-working machinery. (c) Bench work in wood, including exercises in the following operations: planing, sawing, rabbeting, plowing, notching, splicing, mortising, tenoning, dove-tailing, framing, paneling and the general use of carpenters' tools. (d) Wood-turning, involving the various principles of lathework in wood. *Four hours a day.* Mr. DICKER.

2. **Pattern Making.**—Required of all freshmen in Engineering. This is a continuation of the course in wood-working, and is intended to give the student experience in the construction of patterns for use in making iron and brass castings. The work in the shop is supplemented by frequent lectures and recitations on the theory of pattern making. *Four hours a day.* Mr. DICKER.

4. **Forge Shop Work.**—Required of all sophomores in Engineering. Exercises in iron and steel forging. Prerequisites, Practical Mechanics 1 and 2. *Four hours a day.* Mr. THURMAN.

5. **Machine Shop Work.**—Required of all sophomores in Engineering. (a) Exercises in vice work in metal. (b) General machine work, including screw cutting, drilling, planing and the milling of iron, brass and steel. Prerequisites, practical Mechanics 1 and 2. *Four hours a day.* Mr. THURMAN.

GERMAN

Professor Melcher

1. **Elementary German.**—Grammar with easy reading, composition and conversation based on matter read. Course will cover essentials of grammar. Single course.

2. **Intermediate German.**—Rapid reading of elementary German with grammar drill, composition and conversation. Selected prose and poetry committed. Single course.

3. **Scientific German.**—A course in introductory scientific German intended for students of science and journalism. Single course.

4. **Advanced Reading and Composition.**—A course designed for those who have had at least three years of German. The literary merit of work read will be discussed, together with the period to which it belongs. Single course.

HISTORY AND POLITICAL SCIENCE

Professor Tuthill

5bs. **History** of the United States since 1865. Double course.

118s. **Teaching of History and Civics.** Single course.

55s. **Political Science.** Comparative government. Single course.

20s. **History.** The Twentieth Century. Single course.

HOME ECONOMICS

Miss Boterf

1s. **Selection and Preparation of Foods.**—Study of various groups of foods as to selection, their place in the diet, and their preparation, emphasizing economical buying and uses of food and principles concerned in cookery.

2s. **Selection and Construction of Clothing.**—Study of selection of clothing based on cost, labor, artistic, and hygienic factors, and technical practice in drafting, cutting, and making of simple cotton garments.

3s. **Dietetics.**—Study of food values and of foods appropriate for normal adults and children. Prerequisite, Selection and Preparation of Foods, or equivalent.

LATIN AND GREEK

Professor Jones

1. **Beginning Latin.**—A thorough drill in declensions, conjugations, simple rules of syntax. A special effort will be made to show the close connection between Latin and English. Double course.

2. **Caesar (Selections).**—The equivalent of four books will be read, but the selections will be taken mainly from the fifth, sixth and seventh books which portray the customs of the Britons, Germans and Gauls. Exercises in prose composition. Single course.

3. **Cicero and Sallust.**—The four speeches of Cicero against Catiline, and Sallust's Catiline will be read. A comparative study of the orator and the historian. Single course.

4. **Virgil.**—The first, second, fourth and sixth books of the Aeneid will be read. Special attention to the meter and to mythology. Single course.

5. **Livy or Horace.**—The students registered in the course will select the author to be studied. Single course.

6. **Beginning Greek.**—Declensions, conjugations, rules of syntax. English derivatives for Greek words will be noted. Single course.

MATHEMATICS

Dean Boyd, Professor Davis, Assistant Professor Downing

2s. **Second Year Algebra.**—A second course which will be fitted to the needs of the class desiring it. Pedagogical questions will receive attention. Double course.

3s. **Plane Geometry.**—This course will complete as much of the Plane Geometry as possible. Double course.

4s. **Solid Geometry.**—A thorough course open to public school teachers and to those desiring to increase their credits for college entrance and to high school students who have been conditioned in the subject. Single course.

5s. **Trigonometry.**—A standard course in Plane Trigonometry. Double course.

6s. **College Algebra.**—This course covers the same ground as the usual freshman work. Double course.

7s. **Analytics.**—Plane and Solid Analytics for college credit. Double course.

8s. **Differential Calculus.**—Differential calculus covering a semester's work as usually given. Double course.

9s. **Integral Calculus.**—The usual semester's work will be given. Double course.

MUSIC

Professor Lampert

This department seeks not only to supply means of self-expression, but also practical and technical assistance toward the development of men and women who wish to serve as supervisors of music, leaders of bands and orchestras, and as choir directors.

1a. **Sight Singing.**—This course develops speed in reading notes and skill in their vocal production, and is very helpful for *all* forms of musical activities. *One hour a week. First semester.*

1b. **Sight Singing.**—Continuation of Music 1. *One hour a week. Second semester.*

2a. **Musical Appreciation.**—The object of this course is to provide material and methods for teaching history and appreciation of music in schools, and to enable all even tho unable to play an instrument to become acquainted with the art and really enjoy good music when they hear it. *One hour a week. First semester.*

2b. **Musical Appreciation.**—Continuation of Music 3. *One hour a week. Second semester.*

3a. **Harmony.**—The aim of this course is to give practice in chord combinations and writing of melodies. This work forms the basis for the study of musical theory in the public schools. *Two hours a week. First semester.*

3b. **Harmony.**—Cintinuation of 5. *Two hours a week. Second semester.*

5a. **General History of Music.**—This course is designed to cover the historical evolution of music and to develop an appreciation of its wide significance as an educative factor. *Two hours a week. First semester.*

PHYSICS

Professor Webb

1s. **General Elementary Physics.**—Lectures with experimental demonstrations and quizzes on Mechanics and Heat. An introductory course designed for students who wish to become acquainted with the results, methods and spirit of the science, whether they intend to pursue the subject further, or wish an elementary knowledge of Physics only as a matter of general interest. The course also meets the needs of secondary school teachers who wish to review the subject with reference to methods of presentation. Each student is required to perform and report on twenty-five laboratory exercises. Lectures and recitation five hours, laboratory four hours per week.

2s. **General Elementary Physics.**—This is a parallel course with 1s covering the subjects of Electricity and Magnetism, Light and

Sound. 1s is not a prerequisite for 2s. Students may register in either or both of these courses. Single course.

Courses in Physics 1a, 2a, 1b, 5a, 6a, 5b, 6b (for description see University catalog) will be offered if as many as four students register in any one of them. Double courses.

PHYSICAL EDUCATION AND ATHLETICS

Professor Boles

6s. **Baseball.**—Theory and Practice in batting; base running; proper methods of fielding each position; team work and coaching methods; study of the rules; physical condition; methods of indoor practice. Lectures and practical work. Double course.

7s. **Basketball.**—Instruction will be given in basketball with the idea of fitting men to coach. The course will cover passing, goal throwing, dribbling, team play, how to condition a team, and the different styles of play used by the leading coaches. Lectures and practical work. Double course.

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