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**SUMMER SCHOOL
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JUNE 23 TO AUGUST 1

May, 1947

Vol. 44

No. 1

College Park, Maryland

**OFFICIAL PUBLICATION OF THE
UNIVERSITY OF MARYLAND
SUMMER SCHOOL NUMBER
SUMMER SCHOOL, 1947**

CALENDAR

- June 20, 21, Friday-Saturday—Registration, new graduate students only.
- June 23, Monday—Registration—all undergraduate students and matriculated graduate students.
- June 28, Saturday—Classes as usual.
- July 4, Friday—Holiday.
- July 8-10—P.T.A. Summer Conference.
- July 12, Saturday—Classes as usual.
- August 1, Friday—Close of Summer School.

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MAY, 1947

No. 1

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GENERAL INFORMATION

The 1947 Summer School of the University of Maryland will open with registration on Monday, June 23, and extend for six weeks, ending Friday, August 1.

In order that there may be 30 class periods for each full course, classes will be held on Saturday, June 28, and July 12, to make up for time lost on registration. All divisions of the University at College Park, except the College of Engineering, will participate in the Summer School. All courses in the Summer School will extend for six weeks.

TERMS OF ADMISSION

Teachers and special students not seeking degrees are admitted to the courses of the Summer Session for which they are qualified.

The admission requirements for those who desire to become candidates for degrees are the same as for other sessions of the University. Before registering, a candidate for a degree will be required to be admitted to the University. He should see Dr. E. F. Long, Director of Admissions, and also should consult the Dean of the College in which he seeks a degree.

Graduates of accredited normal schools with satisfactory normal school records may be admitted to advanced standing in the College of Education. The objectives of the individual student determine the exact amount of credit allowed. The student is given individual counsel as to the best procedure for fulfilling the requirements for a degree.

ACADEMIC CREDIT

The semester hour is the unit of credit. A semester credit hour represents one lecture or recitation a week for a semester, which is approximately seventeen weeks in length. Two or three hours of laboratory or field work are counted as equivalent to one lecture or recitation. During the Summer Session a course meeting five times a week for six weeks requiring the standard amount of outside work is given a weight of two semester hours.

Students who are matriculated as candidates for degrees will be given credit towards the appropriate degree for satisfactory completion of courses. All courses offered in the Summer Session are creditable towards the appropriate degree.

Teachers and other students not seeking degrees will receive official reports specifying the amount and quality of work completed. These reports will be accepted by the Maryland State Department of Education and by the appropriate education authorities in other states for the extension and renewal of certificates in accordance with their laws and regulations.

NORMAL AND MAXIMUM LOADS

Six semester hours is the normal load for the Summer Session. Undergraduate students in the College of Education and teachers in service may take a maximum of eight semester hours if they have above-average grades. Extra tuition is charged for loads over six semester hours. For details, see "Tuition and Fees."

REGISTRATION

Registration for the Summer School will take place on Monday, June 23, from 9 a. m. to 4:30 p. m. for all students except new graduate students. Graduate students who are not matriculated should register on Friday and on Saturday morning, June 20 and 21, and should report to the office of the Graduate Dean, Dr. C. O. Appleman, 214 Agriculture Building.

Teachers and other Summer Session students, except regular undergraduates who are candidates for degrees in other colleges than the College of Education, will register in the office of the Director of the Summer School, Education Building. Regular undergraduate students will register in the offices of their respective deans. After registration materials have been completed and approved, bills will be issued and fees paid at the offices of the Registrar and Cashier in the Administration building.

Instruction will begin on Tuesday, June 24, at 8:00 a. m. The late registration fee on Tuesday, June 24, will be \$3.00; thereafter, it will be \$5.00.

Students who have not previously been admitted to and matriculated in the University should report before registration to the Director of Admissions, Dr. E. F. Long, in the Administration Building. Such students will find it advantageous to make arrangements for admission in advance by mail.

TUITION AND FEES

Undergraduate Students

General Tuition Fee	\$26.50
This fee entitles the student to 6 semester hours of work, the general recreational program, and the use of a post office box.	
Non-residence Fee	10.00
This fee must be paid by all undergraduate students not residents of Maryland or the District of Columbia.	
Matriculation Fee	10.00
Payable only once, upon admission to the University. Every student must be matriculated.	
Special Tuition Fees	
For load of 3 semester hours, or less, or for additional work over 6 semester hours, per semester hour.....	6.00

Graduate Students

General Tuition Fee	31.50
This fee entitles the student to 6 semester hours of work, the general recreational program, and the use of a post office box.	
Matriculation Fee.....	10.00
Payable only once, upon admission to the Graduate School.	
Special Tuition Fee for load of 4 semester hours, or less, per semester hour.....	6.00

Miscellaneous Information

There is no non-residence fee for graduate students.

Auditors pay the same fees as regular students except that no charge is made to students who have paid the general fee.

A special laboratory fee may be charged for certain courses where such fee is noted in the course description.

The diploma fee is \$10.00.

A fee of \$1.00 is charged for each change in program after June 28th.

If such changes involve entrance to a course, they must be approved by the instructor in charge of the course entered. Courses cannot be dropped after July 12th.

CANCELLATION OF COURSES

Courses may be cancelled if the number of students enrolled is below certain minima. In general, freshman and sophomore courses will not be maintained for classes smaller than 15. Minimum enrollments for upper level undergraduate courses and graduate courses will be 10 and 5 respectively.

LIVING ACCOMMODATIONS—MEALS

Dormitory accommodations are available as follows:

Regular Dormitories, double rooms \$20 per term (maid service).

Regular Dormitories, single rooms \$25 per term (maid service) (women only).

Veterans' Barracks, double rooms \$15 per term (for veterans) (no maid service).

Students living in the Regular Dormitories will be required to take their meals in the University Dining Hall. Residents of the Veterans' Barracks may take their meals off campus as the barracks are located on the east side of the campus. For reservations write to Miss Marian Johnson, Assistant Dean of Women, or Mr. James Kehoe, Men's Dormitory Manager.

A few off-campus rooms are available. Inquiries concerning them should be addressed to Mr. Doyle Royal, Office of Director of Student Welfare. He will furnish the names of those householders to whom you should write to make your own arrangements.

Board in the University Dining Hall will be \$60 for the term. Cafeteria meal service will be available to those summer school students who are commuting and those who live in off campus houses.

Rooms may be reserved in advance but will not be held later than noon of Tuesday, June 24. As the number of rooms is limited, early application for reservations is advisable. The University dormitories will be open for occupancy the morning of Monday, June 23.

Students attending the Summer School and occupying rooms in the dormitories will provide themselves with towels, pillows, pillow cases, sheets, and blankets. Trunks should be marked plainly with name and address (dormitory and room number if rooms have been assigned in advance). Trunks sent by express should be prepaid. Maid service will be provided for student rooms.

The University assumes no responsibility for rooms and board offered to Summer Session patrons outside of the University dormitories and dining room.

REFUNDS

In cases of withdrawal for illness or other unavoidable causes, refunds will be made as follows:

For withdrawal within five days after registration full refund of fixed charges and fees, with a deduction of \$5.00 to cover cost of registration, will be made.

After five days, and up to two weeks, refunds on all charges will be prorated with the deduction of \$5.00 for cost of registration.

Applications for refunds must be made to the registrar's office and approved by the appropriate dean and the director. No refund will be paid until the application form has been signed by the dean and the director and countersigned by the dormitory representative if the applicant rooms in a dormitory.

STUDENT HEALTH

The University Infirmary, located on the campus, in charge of the regular University physician and nurse, provides medical service of a routine nature for the students in the Summer Session. Students who are ill should report promptly to the University Infirmary, either in person or by phone (Extension 326).

PARKING OF AUTOMOBILES

For the use of students, staff members, and employees, several conveniently located and wholly adequate parking lots are provided. The University rules forbid the parking of cars on any of the campus roads. These rules are enforced by State police.

SOCIAL AND RECREATIONAL ACTIVITIES

There will be a carefully planned program of social and recreational events administered by the Recreation Department. The recreational fee of one dollar, paid by all registrants in the Summer Session, is used to finance the program.

A representative advisory committee of students will be appointed to plan such events as they may wish to provide. Suggestions as to the nature of the social program will be welcomed by the Director of Health, Physical Education, and Recreation.

SUMMER GRADUATE WORK

Masters' degrees are offered through the Graduate School as follows:

- Master of Arts
- Master of Science
- Master of Arts in American Civilization
- Master of Education
- Master of Business Administration

Doctors' degrees offered through the Graduate School are as follows:

- Doctor of Philosophy
- Doctor of Education

Graduate work in the Summer School may be counted as residence toward a Masters' or Doctor of Education degree. A full year of residence or the equivalent is the minimum requirement for each degree.

The requirements for each of the seven degrees above may be procured from the Graduate School upon request.

Special regulations governing graduate work in Education and supplementing the statements contained in the Graduate School Announcements are available in duplicated form and may be obtained at the College of Education. Each graduate student in Education should have a copy. Students seeking the Masters' degree as a qualification for a certificate issued by the Maryland State Department of Education or any other certifying authority should consult the appropriate bulletin for specific requirements. Advisers will assist students in planning to meet such requirements.

All students desiring graduate credit, whether for meeting degree requirements, for transfer to another institution, or for any other purpose, must be regularly matriculated and registered in the Graduate School. Those expecting to register as graduate students should bring with them transcripts of their undergraduate and graduate records from other institutions.

CANDIDATES FOR DEGREES

Undergraduate students who expect to complete their requirements for baccalaureate degrees during the summer session should make application for diplomas at the office of the Registrar.

LIBRARY FACILITIES

The General Library at College Park, completed in 1931, is an attractive well equipped and well lighted structure. The main reading room on the second floor seats 236, and has about 5,000 reference books and bound periodicals on open shelves. The stack room is equipped with carrels and desks for the use of advanced students. About 10,000 of the 125,000 volumes on the campus are shelved in the Chemistry and Entomology departments, the Graduate School, and other units. Approximately 1,000 periodicals are currently received.

The University Library System is able to supplement its reference service by borrowing material from other libraries through inter-library loans or bibliofilm service, or by arranging for personal work in the Library of Congress, the United States Office of Education Library, the United States Department of Agriculture Library, and other agencies in Washington.

UNIVERSITY BOOKSTORE

For the convenience of students, the University maintains a students' supply store, located in the basement of the Administration Building, where students may obtain at reasonable prices textbooks, stationary, classroom materials and equipment, confectionary, etc.

The store is operated on the basis of furnishing students needed books and supplies at as low a cost as practicable, and profits, if any, are turned into the general University treasury to be used for promoting general student welfare.

Students are advised not to purchase any textbooks until they have been informed by their instructors of the exact texts to be used in the various courses, as texts vary from year to year.

The bookstore is operated on a cash basis.

SPECIAL MEETINGS

The Parent-Teacher Association Summer Conference—July 8-10

The College of Education will cooperate with the Maryland Congress of Parents and Teachers in planning their convention to be held this summer on the University campus. The theme of the meeting will be: "Assignment for Tomorrow." Persons of national reputation will be present as speakers and discussion leaders at the conference.

COURSE OFFERINGS AND DESCRIPTIONS

(Unless otherwise stated, courses meet one hour daily, five days a week.)

AGRICULTURAL ECONOMICS AND FARM MANAGEMENT

A. E. 109. Research Problems (1-2). To be arranged. (DeVault.)

With the permission of the instructor, students will work on any research problems in agricultural economics. There will be occasional conferences for the purpose of making reports on progress of work.

A. E. 200. Special Problems in Farm Economics (2). To be arranged. (DeVault.)

An advanced course dealing extensively with some of the economic problems affecting the farmer, such as land values, taxation, credit, prices, production adjustments, transportation, marketing, and cooperation.

A. E. S 207. Farm Business Analysis (1). First three weeks. To be arranged. (Hamilton.)

This course considers the preparation, keeping, and analysis of farm records; farm budgeting, farm management surveys, the reorganization of typical farms, and the use of farm records for income tax reports. Students will analyze records of different types of farms located in various parts of the State and make specific recommendations as to how these farms may be improved.

A. E. 210. Taxation in Relation to Agriculture (2). To be arranged. (Walker.)

Principles and practices of taxation in their relation to agriculture, with special reference to the trends of tax levies, taxation in relation to land utilization, taxation in relation to ability to pay, and benefits received.

AGRICULTURAL EDUCATION AND RURAL LIFE

The three-week courses in Agricultural Education and Rural Life which follow are offered primarily for teachers of vocational agriculture, county agents, and others interested in the professional and cultural development of rural communities. The normal load in such a program is three courses, which gives 3 units of credit. The courses of this department are offered in a cycle. By pursuing such a program successfully for four summers, a student will be able to earn 12 semester hours, a minimum major in this field, and could then return for two full summer sessions or one semester of regular school or for four more summers of three weeks each to complete the remaining 12 hours required for the master's degree. These courses are arranged to articulate with the three-week courses in Agricultural Economics and Farm Management, Agronomy, Animal Husbandry, Botany, Dairy Husbandry, Entomology, Horticulture and Poultry.

In 1947 the first three-week period will extend from June 23 to July 12. School will be held on Saturdays, June 28 and July 12, to make up for registration day, and July 4.

R. Ed. S 207 A-B. Problems in Teaching Vocational Agricultural and Related Science (1-1). First three weeks. Part B. 9:00; T-112. (Ahalt.)

A critical analysis of current problems in the teaching of vocational agriculture with special emphasis upon recent developments in all-day programs.

R. Ed. S 208 A-B. **Problems in Teaching Farm Mechanics (1-1)**. First three weeks. Part B. 1:30 to 3:20; T-112. (Gienger.)

This course deals with the latest developments in the teaching of Farm Mechanics. Various methods in use will be compared and studied under laboratory conditions.

R. Ed. S 211 A-B. **Rural Education Through the Agricultural Extension Services and other Agricultural Agencies (1-1)**. First three weeks. Part A. 11:00; T-112. (Ahalt.)

Development of the extension service. Types of demonstrations and instruction used. The role of the County Agricultural and Home Demonstration Agents in the development of rural society.

AGRONOMY

Agron. 206 S. **Cropping System (1)**. Not given in 1947.

Soils 101 S. **Soil Management (1)**. First three weeks. To be arranged. (Thomas.)

Factors involved in management of soils in general and of Maryland soils in particular. Emphasis is placed on methods of maintaining and improving chemical, physical, and biological characteristics of soils. Illustrations with conservation practices receive particular attention.

ART

Art 9. **History of Painting, Sculpture, and Architecture (3)**. Eight periods a week. Daily, 8:00; M., W., F., 10:00; A-310. (Siegler.)

An understanding of the epochs in the advance of civilization as expressed through architecture, painting, and sculpture. A background to more detailed study.

Art 11. **Portrait Class (Drawing and Painting) (3)**. Prerequisite, Art 2 and 6. Eight periods a week. Daily, 9:00; M., W., F., 11:00; A-310. (Siegler.)

Thorough draftsmanship and knowledge of characterization and composition stressed.

BACTERIOLOGY

Bact. 1. **General Bacteriology (4)**. Five lectures and five two-hour laboratory periods a week. Lecture, 9:00; T-314; laboratory, 10:00-11:00, T-311. Laboratory fee, \$8.00. (Pelczar.)

The physiology, culture, and differentiation of bacteria. Fundamental principles of microbiology in relation to man and his environment.

Bact. 5. **Advanced General Bacteriology (4)**. Five lectures and five two-hour laboratory periods a week. Lecture, 8:00, T-314; laboratory, 9:00-10:00, T-307. Prerequisites, Bact. 1 and Chem. 3. Laboratory fee, \$8.00. (Laffer.)

Emphasis will be given to the fundamental procedures and technics used in the field of bacteriology with drill in the performance of these

technics. Lectures will consist of the explanation of various laboratory procedures.

Bact. 181. Bacteriological Problems (3). Eight two-hour laboratory periods a week. To be arranged. Prerequisites, 16 credits in Bacteriology. Registration only upon the consent of the instructor. Laboratory fee, \$8.00. (Faber.)

This course is arranged to provide qualified undergraduate majors in bacteriology and majors in allied fields an opportunity to pursue specific bacteriological problems under the supervision of a member of the department.

Bact. 290. Research. Prerequisites, 30 credits in Bacteriology. Laboratory fee, \$8.00. (Staff.)

Credits according to work done. The investigation is outlined in consultation with and pursued under the supervision of a senior staff member of the department.

BOTANY

Bot. 1. General Botany (4). Five lectures and five two-hour laboratory periods per week. Lecture, 11:00, T-219; laboratory, 8:00, T-208. Laboratory fee, \$5.00. (Brown.)

General introduction to botany, touching briefly on all phases of the subject. The chief aim in this course is to present fundamental biological principles rather than to lay the foundation for professional botany. The student is also acquainted with the true nature and aim of botanical science, its methods, and the value of its results.

Bot. 122 S. Field Plant Pathology (1). A course for teachers of vocational agriculture and county agents. Important diseases of Maryland crops will be discussed. Not given in 1947. Prerequisite, Bot. 20. (Cox.)

Bot. 206. Research, Physiology. (Credit according to work done.) Students must be qualified to pursue with profit the research to be undertaken. (Appleman.)

Bot. 214. Research, Morphology. (Credit according to work done.) (Bamford.)

Bot. 225. Research, Pathology. (Credit according to work done.) (Woods and Jeffers.)

BUSINESS AND PUBLIC ADMINISTRATION

Econ. 1. Economic Geography (2). Three lectures and two two-hour laboratory periods per week.

Section 1—M., W., F, 10:00; A-148; T., Th., 8:00-9:00; A-147. (Baker.)

Section 2—M., W., F., 10:00; A-148; T. Th., 10:00-11:00; A-147. (Baker.)

Section 3—M., W., F., 10:00; A-148; T., Th., 2:00-3:00; A-147. (Baker.)

Econ. 2. Economic Geography (2).

Section 1—Daily, 9:00; A-148. Baker.

Section 2—Daily, 2:00; A-148. (Baker.)

General comparative study of the geographic factor underlying production economics. Emphasis upon climate, soil, landforms, agricultural products, power resources, and major metallic minerals, concluding with brief survey of geography of commerce and manufacturing.

Econ. 4. Economics Development (2). 10:00; A-21. (Dillard.)

Econ. 5. Economic Development (2). 11:00; A-21. (Dillard.)

An introduction to modern economic institutions—their origins, development, and present status. Commercial revolution, industrial revolution, and age of mass production. Emphasis on development in England, Western Europe, and the United States.

Econ. 31. Principles of Economics (3). Eight periods a week. Daily, 8:00; M., W., F., 9:00; A-110. (Gruchy.)

Econ. 32. Principles of Economics (3). Eight periods a week. Daily, 1:00; M., W., F., 2:00; A-110. (Ratzlaff.)

A general analysis of the functioning of the economic system. A considerable portion of the course is devoted to a study of basic concepts and explanatory principles. The remainder deals with the major problems of the economic system.

Econ. 135. Current Economic Problems (3). 10:00; A-110. (Gruchy.)

An analysis of the economic causes and problems of war. Industrial mobilization, theory and techniques of price control; war finance, international trade and foreign exchange controls; and the problems of readjustment in a post-war economy.

Econ. 140. Money and Banking (3). Eight periods a week. Daily, 12:00; M., W., F., 1:00; A-228. (Clemens.)

A study of the nature, functions, and operations of our financial organization, money and credit, commercial banking, domestic and foreign exchange, federal reserve system, non-commercial banking institutions, and recent financial developments.

Econ. 150. Marketing Principles and Organization (3). Eight periods a week. Daily, 2:00; M., W., F., 3:00; A-228. (Troelston).

This is an introductory course in the field of marketing. Its purpose is to give a general understanding and appreciation of the forces operating, institutions employed, and methods followed in marketing agricultural products, natural products, services, and manufactured goods.

Econ. 160. Labor Economics (3). Eight periods a week. Daily, 10:00; M., W., F., 11:00; A-231. (Ratzlaff.)

The historical development and chief characteristics of the American labor movement are first surveyed. Present day problems are then examined in detail; wage theories, unemployment, social security, labor organization, collective bargaining.

B. A. 10. Organization and Control (2). 11:00; A-110. (Clemens.)

A survey course treating the internal and functional organization of a business enterprise.

B. A. 11. Organization and Control (2). 12:00; A-21. (McLarney.) Includes industrial management, organization, and control.

B. A. 20. Principles of Accounting (4). Ten periods a week.

Section 1—Daily, 8:00-9:00; A-243. (Cissel.)

Section 2—Daily, 1:00-2:00; A-246. (Mills.)

B. A. 21. Principles of Accounting (4). Ten periods a week. Daily, 8:00-9:00; A-246. (Wright.)

The fundamental principles and problems involved in the accounting system; capital and surplus; bonds; and manufacturing and cost accounting.

B. A. 120. Intermediate Accounting (5). Thirteen periods a week. Daily, 8:00-9:00; M., W., F., 10:00; A-338. (Wedeborg.)

A comprehensive study of the theory and problems of valuation of assets, corporation accounts and statements, consignment and installments, and the interpretation of accounting statements.

B. A. 130. Elements of Business Statistics (3). Eight periods a week. Daily, 8:00; M., W., F., 9:00; A-231. (Calhoun.)

This course is devoted to a study of the fundamentals of statistics. Emphasis is placed upon the collection of data; hand and machine tabulation; graphic charting; statistical distribution; averages; index numbers; sampling; elementary tests and reliability and simple correlations.

B. A. 140. Financial Management (3). Eight periods a week. Daily, 1:00; M., W., F., 2:00; A-231. (Calhoun.)

This course deals with principles and practices involved in the organization, financing, and reconstruction of corporations, the various types of securities and their use in raising funds, apportioning income, risk, and control; intercorporate relations; and new developments. Emphasis on solution of problems of financial policy faced by management.

B. A. 150. Marketing Management (3). Eight periods a week. Daily, 8:00; M., W., F., 9:00; A-21. (Reid.)

A study of the work of the marketing division in a going organization. The work of developing organizations and procedures for the control of marketing activities are surveyed. The emphasis throughout the course is placed on the determination of policies, methods, and practices for the effective marketing of various forms of manufactured products.

B. A. 160. Personnel Management (3). Eight periods a week. Daily, 10:00; M., W., F., 11:00; A-246. (McLarney.)

This course deals essentially with functions and administrative relationships between management and the labor force. It comprises a survey of the scientific selection of employees, "service" training, job analysis, classification and rating, motivation of employees, employer adjustment, wage incentive, employee discipline and techniques of supervision, elimination of employment hazards, etc.

B. A. 165. Office Management (3). Eight periods a week. Daily, 1:00; M., W., F., 2:00; A-210. (Patrick.)

Considers the application of the principles of scientific management in their application to office work.

B. A. 180. Business Law (4). Ten periods a week. Daily, 8:00-9:00: A-209. (Mounce.)

Legal aspects of business relationships, contracts, negotiable instruments, agency, partnerships, corporations, real and personal property, and sales.

CHEMISTRY

Chem. 3. General Chemistry (4). Five lectures and five 3-hour laboratory periods per week. Prerequisite, Chem. 1. Lecture—M., T., W., Th., F.—11:00, A-1. Laboratory—M., T., W., T., F.—8-9-10 or 1-2-3, K-21. (Dewey.)

Chem. 19. Quantitative Analysis (4). Five lectures and five 3-hour laboratory periods per week. Prerequisite, Chem. 1 and 3. Lecture—M., T., W., Th., F.—9:00, K-307. Laboratory—M., T., W., Th., F.—10:00-11:00-12:00; K-231. (Stuntz.)

Chem. 37. Elementary Organic Chemistry (2). Five lectures per week. M., T., W., Th., F.—8, K-307. Prerequisite, Chem. 35. (Reeve.)

Chem. 38. Elementary Organic Laboratory (2). Five 3-hour laboratory periods per week. M., T., W., Th., F.—9-10-11 or 1-2-3, K-306. Prerequisite, Chem. 36. (Reeve.)

Chem. 142, 144. Advanced Organic Laboratory (2, 2). Five or ten 3-hour laboratory periods per week. Prerequisites, Chemistry 19 or 23 and Chem. 37 and Chem. 38. Laboratory periods are arranged. K-310. (Pratt.)

Chem. 146, 148. Identification of Organic Compounds (2, 2). Five or ten 3-hour laboratory periods per week. Prerequisites, Chem. 141 and 143. Laboratory periods are arranged. K-310. Two recitations per week. Arranged. (Pratt.)

Chem. 254. Advanced Organic Preparations (2 to 4). Five to ten 3-hour laboratory periods per week. Laboratory periods are arranged. K-310. (Pratt.)

Chem. 258. The Identification of Organic Compounds, an advanced course (2 to 4). Five to ten 3-hour laboratory periods per week. Laboratory periods are arranged. K-310. Two recitations per week. Arranged. (Pratt.)

Chem. 166. Food Analysis (3). Three lectures and five 3-hour laboratory periods per week. Prerequisites, Chem. 19, 31, 32, 33, 34. Lecture—M., W., F.—10:00, K-307. Laboratory periods will be arranged. (Wiley.)

Chem. 311. Physicochemical Calculations (2). Five lectures per week. M., T., W., Th., F.—11:00, K-307. (Pickard.)

DAIRY HUSBANDRY

D. H. 201. Advanced Dairy Production (1). First three weeks. Arranged. (Cairns.)

An advanced course primarily designed for teachers of vocational agriculture and county agents. It includes a study of the newer discoveries in animal nutrition, breeding and management.

D. H. 204. Special Problems in Dairying (1-3). Arranged. Prerequisite, permission of professor in charge of work. Credit in accordance with the amount and character of work done.

Special problems which relate specifically to the work the student is pursuing will be assigned.

D. H. 208. Research (1-3). Arranged. Credit to be determined by the amount and quality of work done.

The student will be required to pursue, with the approval of the Head of the Department, an original investigation in some phase of dairy husbandry, carrying the same to completion, and report results in the form of a thesis.

EDUCATION

Ed. 52. Children's Literature (2). 8:00; A-203. (Bryan.)

A study of literary values in prose and verse for children.

Ed. 101. History of Education II (2). 8:00; F-103. (Kabat.)

Emphasis is placed on the post-Renaissance periods.

Ed. 105. Comparative Education (2). 8:00; N-101. (Benjamin.)

A study of national systems of education with the primary purpose of discovering their characteristic differences and formulating criteria for judging their worth.

Ed. 110. The Teacher and School Administration (2). 9:00; F-103. (Broome.)

This course is designed to acquaint the classroom teacher with the general field of school administration. It considers the relationships of the teacher to the several administrative and supervisory officials and services in the system, with emphasis on the teacher's role in the organization.

Ed. 114. Educational Foundations (2). 10:00; F-103. (Broome.)

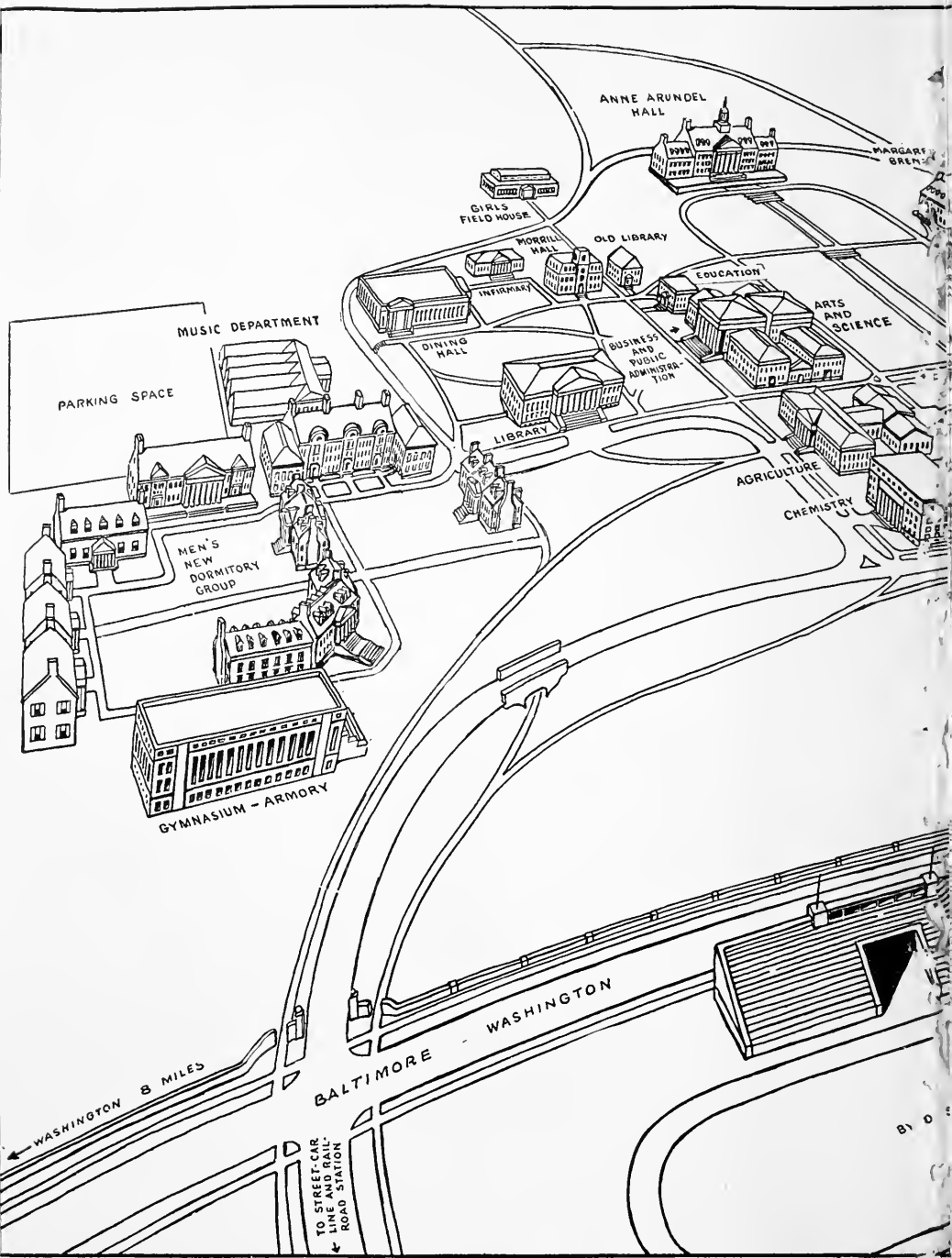
This course is devoted to the examination of education and of the school with its tasks in the light of the more recent psychology and a social outlook in a democracy.

Ed. 123. The Child and the Curriculum (2). 9:00; F-104. (Webb.)

This course will emphasize the relation of the elementary school curriculum to child growth and development. Recent trends in curriculum organization; the effect of school environment on learning; readiness to learn; and adapting curriculum content and methods to the maturity levels of children will be emphasized.

Ed. 124. Creative Expression in the Elementary School (2). 10:00; F-104. (Webb.)

This course should prove practical to classroom teachers and supervisors, since it will attempt to consider the so-called special subjects in their rela-



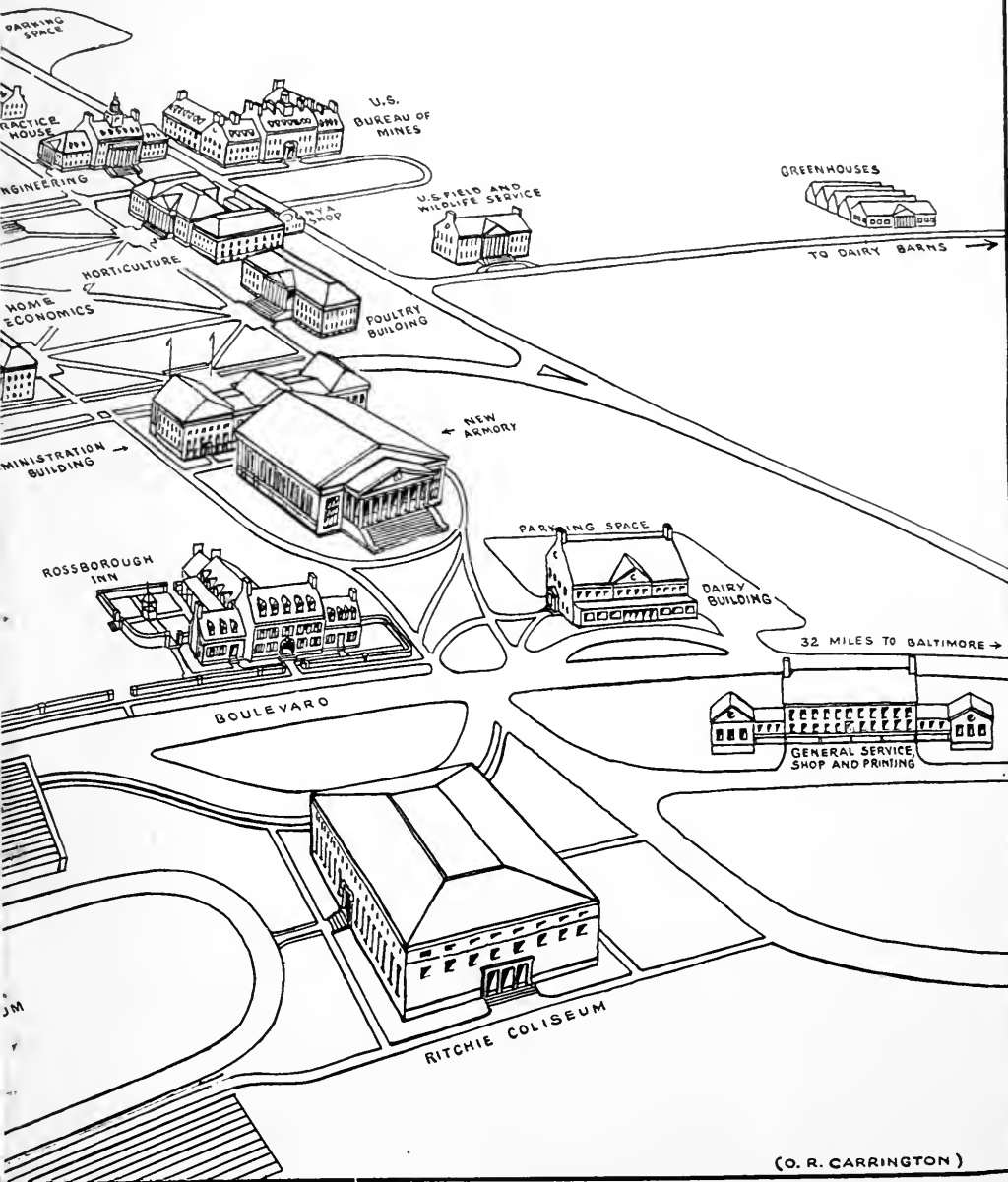
DW—Dean of Women's
 W—Women's Field House
 Z—Sylvester Hall

A—Arts and Sciences
 B—Music
 C—Calvert Hall

D—Dairy
 E—Engineering
 F—Horticulture Building

Building 1

COLLEGE PARK CAMPUS UNIVERSITY OF MARYLAND



(O. R. CARRINGTON)

tification

P—Poultry
T—Agriculture
G—Gymnasium-Armory

H—Home Economics
K—Chemistry
L—Library

M—Morrill Hall
N—Education

tion to children and the course of study. It is based on the point of view that the classroom teacher is the best teacher of her children and as such is responsible for the day by day development of special areas as an integrated part of the total program. Creativity as the natural expression of ideas and as a means of communication will be stressed in both language and manual arts. The relation of creativity to the integration of personality will be emphasized.

Ed. 130. Theory of the Junior High School (2). 11:00; N-101. (Baker.)

This course gives a general overview of the junior high school. It includes consideration of the purposes, functions, and characteristics of this school unit; a study of its population, organization, program of studies, methods, and staff; and other similar topics, together with their implication for prospective teachers.

Ed. 131. Theory of the Senior High School (2). 11:00; N-101. (Baker.)

The secondary school population; the school as an instrument of society; relation of the secondary school to other schools; aims of secondary education; curriculum and methods; extra-curricular activities; guidance and placement; teacher certification and employment in Maryland and the District of Columbia. This course is somewhat more general than Ed. 130.

Ed. 144. Materials and Procedure for the Junior High School Core Curriculum (2). 9:00; A-130. (Willis.)

This course is designed to bring practical suggestions to teachers who are in charge of core classes in junior high schools. Materials and teaching procedures for specific units of work are stressed.

Ed. 147. Audio-Visual Education (2). 9:00; N-106. (Brechbill.)

Sensory impressions in their relation to learning; projection apparatus, its cost and operation; slides, film-strips, and films; physical principles underlying projection; auditory aids to instruction; field trips; pictures, models, and graphic materials; integration of sensory aids with organized instruction. Fee, \$1.00.

Ed. 150. Educational Measurement (2). 10:00; N-101. (Brechbill.)

A study of tests and examinations with emphasis upon their construction and use. Types of tests; purposes of testing; elementary statistical concepts, and processes used in summarizing and analyzing test results; school marks.

Ed. 152. The Adolescent: Characteristics and Problems (2). 12:00; A-130.

This course deals with the intellectual, emotional, social, and vocational problems which arise in the transitional period between childhood and adulthood, the secondary school period.

Ed. 153. The Improvement of Reading (2). 11:00; N-106. (Schindler.)

This course is intended for teachers working at the intermediate and secondary school levels. Attention is given to the teaching of reading in different school subjects, the selection of reading materials, the study of individuals with reference to causes of reading deficiencies, types of reading

lessons, and certain elements of psychology essential to intelligent consideration of problems in this field.

Ed. 158. Child Development I: The Preschool Years (3). Eight periods a week. Daily, 9:00; T., Th., 11:00; A-18. (McNaughton.)

Growth and development of the preschool child as a basis for understanding child behavior and the type of guidance needed; field trip to well-baby clinic; observation in nursery schools; review of current books.

Ed. 159. Child Development II: The Child from Five to Ten Years (2). 12:00; N-105. (McNaughton.)

Development, characteristics, and interests of the middle-age child; interpersonal relations as affected by home, school, and community.

Ed. 161. Guidance in Secondary Schools (2). 1:00; A-130.

This course is primarily designed for the classroom teacher in terms of the day-by-day demands made upon him *as a teacher* in the guidance of the youth in his classes and in the extra-class activities which he sponsors. The stress is upon usable materials and upon practical common-sense guidance procedures of demonstrated workability.

Ed. 179. Principles of Adult Education (2). 9:00; N-105. (Wiggin.)

The course includes a study of adult educational agencies both formal and informal, with special reference to the development of adult education in the United States, the interests and abilities of adults, and the techniques of adult learning.

Ed. 210. The Organization and Administration of Public Education (2). 10:00; DW-106. (Newell.)

This course deals with so-called "external" phases of school administration. It includes study of the present status of public school administration, organization of local, state, and federal educational authorities; and the administrative relationships involved therein.

Ed. 211. The Organization, Administration, and Supervision of Secondary Schools (2). 9:00; DW-106. (Newell.)

This course is designed as a continuation of Ed. 210, but may be taken independently. It includes what is called "internal" administration; the organization of units within a school system; the personnel problems involved; and such topics as schedule making, teacher selection, public relations, and school supervision.

Ed. 212. School Finance and Business Administration (2). 12:00; DW-106. (Newell.)

This course deals principally with school revenue and taxation; federal and state aid and equalization; purchase of supplies and equipment; internal school accounting; and other selected problems of local school finance.

Ed. 213. Administration and Teaching in Junior High School (2). 8:00; A-130. (Willis.)

This course is concerned with persistent problems and related administrative organization and policy. It is designed for teachers and administra-

tors. Emphasis is placed on ways and means whereby junior high schools may realize their functions fully.

Ed. 216. High School Supervision (2). 12:00; N-101. (Baker.)

This course deals with the nature and function of supervision; recent trends in supervisory theory and practice; teacher participation in the determination of policies; planning of supervisory programs; appraisal of teaching methods; curriculum reorganization, and other means for the improvement of instruction.

Ed. 217. Administration and Supervision in Elementary Schools (2). 11:00; E-104. (Webb.)

A study of the problems connected with organizing and operating elementary schools and directing instruction.

Ed. 229. Seminar in Elementary Education (2). 8:00; N-105. (Schindler.)

Attention will be centered on selected problems in curriculum making, teaching, and child development. Members of the class may concentrate on seminar papers, prepare materials for their schools, or read extensively to discover viewpoints and research data on problems and experimental practices.

Ed. 232. Student Activities in the High School (2). 2:00; A-130.

This course offers a consideration of the problems connected with the so-called "extra-curricular" activities of the present-day high school. Special consideration will be given to (1) philosophical bases, (2) aims, (3) organization, and (4) supervision of student activities such as student council, school publications, musical organizations, dramatics, assemblies, and clubs. Present practices and current trends will be evaluated.

Ed. 247. Seminar in Science Education (2). 11:00; N-105. (Brechtbill.)

Ed. 250. Analysis of the Individual (2). 9:00; A-207. (Nyweide.)

This course is concerned with the selection and administration of tests and inventories. Interpretation and use of data are stressed.

Ed. 255. Principles and Problems of Business Education (2). 12:00; A-231. (Patrick.)

Principles and practices in business education; growth and present status; vocational business education; general business education; relation to consumer education and to education in general.

Ed. 261. Counseling Techniques (2). 10:00; A-209. (Nyweide.)

This course deals with the various specialized techniques, procedures, and materials utilized by guidance specialists in the schools. To be required for the proposed Maryland counseling certificate.

Ed. 262. Occupational Information (2). 12:00; A-209. (Nyweide.)

This course is designed to give counsellors, teachers of social studies, school librarians, and other workers in the field of guidance and education a background of educational and occupational information which is basic for counseling and teaching.

Ed. 280. **Research Methods and Materials in Education (2).** Two periods a day for first three weeks. Arranged. N-210. (Meshke.)

A study of research in education, the sources of information and techniques available, and approved form and style in the preparation of research reports and theses.

Ed. 289. **Research (1-6).**

Home Economics Education

H. E. Ed. 120.—**Evaluation of Home Economics (2).** 9:00; N-101. (Meshke.)

The measure and function of evaluation in education; the development of a plan for evaluating a homemaking program with emphasis upon types of evaluation devices, their construction and use.

H. E. Ed. S220. **Workshop in Family Life Education (2).** This course is identical with H. E. S200. See page 34.

Industrial Education

A. Professional Courses

The following six courses are intended for Industrial Arts teachers and supervisors, for Vocational-Industrial teachers and supervisors, and for school administrators and others who desire to acquaint themselves with underlying principles, practices and educational contributions of Industrial Arts and Vocational Education.

Ind. Ed. 170. **Principles and Practices of Vocational Education (2).** 9:00; E-121. (Brown.)

Establishment and evaluation of the principles underlying the Vocational Education movement, a study of the practices by which the principles are implemented, and their relationship to a comprehensive educational program for all youth and adults.

Ind. Ed. 207. **Philosophy of Industrial Arts Education (2).** 1:00; E-121. (Hornbake.)

This course is intended to assist in the development of a point of view as regards Industrial Arts and an understanding of its relationship with the total educational program. The student of Industrial Arts should have, as a result, a "yardstick" for appraising current procedures and an articulateness in his own professional area.

Ind. Ed. 214. **School Shop Planning and Equipment Selection (2).** 8:00; E-121. (Hornbake.)

This course deals with principles involved in planning a school shop and provides opportunities for applying these principles. Facilities required in the operation of a satisfactory shop program are catalogued and appraised.

Ind. Ed. 240. **Research in Industrial Arts and Vocational Education (2).** (Arranged.)

This is course offered by arrangement for persons who are conducting research in the areas of Industrial Arts and Vocational Education.

Ind. Ed. 241. Content and Methods of Industrial Arts (2). 2:00; E-121. (Hornbake).

Various methods and procedures used in developing courses of study are examined and those suited to the field of Industrial Arts education are applied. Methods of and devices for Industrial Arts instruction are studied and practised.

Ind. Ed. 248. Seminar in Industrial Arts and Vocational Education (2). 10:00; E-121. (Brown.)

This seminar deals with the issues and problems within the fields of Industrial Arts and Vocational Education and with research procedures which contribute toward their solution. Opportunity is provided to students majoring in Industrial Educational to write one of the seminar papers required for the degree of Master of Education.

B. Technical Courses

The following courses are offered to persons who are preparing to teach Industrial Arts at the secondary school level or to teachers already engaged in Industrial Arts teaching. The courses are comparable in content and presentation to those offered during the regular school term in the Industrial Arts curriculum. The primary purpose of each course is to have the student develop sufficient skill and technique to instruct secondary school pupils in similar courses.

Ind. Ed. 21. Mechanical Drawing II (2). 8:00-10:00. Ind. Ed. Bldg. (Maley.) Laboratory fee, \$3.00. Pre-requisite: Ind. Ed. 1 or its equivalent.

This course deals with working drawings, machine design, pattern layouts, tracing and reproduction. Detail and assembly drawings are produced.

Ind. Ed. 41. Architectural Drawing (2). 8:00-10:00. Ind. Ed. Bldg. (Maley.) Laboratory fee, \$3.00. Pre-requisite: Ind. Ed. 1 or its equivalent.

Practical experience is provided in the design and planning of homes and other buildings. Working drawings, specifications and blue prints are featured.

Ind. Ed. 28. Electricity I (2). 10:00-12:00. Ind. Ed. Bldg. (Drazek.) Laboratory fee, \$3.00.

An introductory course in electricity. It deals with basic electrical phenomena and includes such radio and electronic instruction as may be helpful in Industrial Arts programs at the junior high school level.

C. Art Crafts

Art Crafts I, II, and III constitute a sequence of related courses intended to assist persons who are preparing to teach art crafts in grade 7 of the public schools of Maryland, or teachers who have already undertaken this type of work in the schools. The work is appropriate also for persons who teach art crafts at any grade level and for those who teach art crafts in camps, clubs, adult evening classes and the like. The sequence places emphasis upon practical work experience.

Ind. Ed. 9. Art Crafts I (2). 1:00-3:00. Ind. Ed. Bldg. (Drazek.) Laboratory fee, \$3.00.

The materials used in Art Crafts I are woods, metals, leathers and plastics. Each student is provided the opportunity of doing a variety of types of work in the four media.

Ind. Ed. 10. Art Crafts II (2). 3:00-5:00. Ind. Ed. Bldg. (Drazek.) Laboratory fee, \$3.00.

Art Crafts II offers work experiences in model building, ceramics, block printing, and seasonal activities.

Physical Education

P. E. 116. Rhythmic Activities (2). Three lectures and four laboratory periods per week. T., Th., F., 10:00; M., W., 10:00-11:00. Field House.

Materials and methods. Theory and practice in teaching singing games, modern dance fundamentals, simple and advanced folk and square dances for elementary and secondary schools.

P. E. 120. The Physical Education Curriculum in the Secondary School (2). 10:00; AR-24. (Tompkins.)

An analysis of activities for the secondary program. Philosophy, principles, and procedures in teaching and planning the physical education curriculum.

P. E. 122. Individual Sports (2). Open to men and women. Two lectures and six laboratory periods per week.

Women—M., W., 11:00; T., Th., F., 12:00-1:00; Field House. (Benton.)

Men—M., W., 9:00; T., Th., F., 9:00-10:00; Armory. (Evans.)

Theory and practice in the techniques and teaching of golf, badminton, and tennis.

P. E. 130. Exhibition and Demonstration Physical Activities (1). One lecture and two laboratory periods per week. M., W., F., 8:00; Armory. (Field.)

Lecture and practice in the building of pyramids, tumbling, and the showing of mass activities in physical skills adopted to stage presentations.

Rec. 160. Golf (1). One lecture and two laboratory periods per week. W., 1:00-2:00-3:00; Armory. (Cronin.)

The game treated as a social pastime with practice in the etiquette and psychology of team play.

P. E. 180. Tests and Measurements in Physical Education (2). Three lectures and four laboratory periods per week. M., W., F., 9:00; T., Th., 9:00-10:00; Field House. (Benton.)

A study of the principles and uses of achievement standards and tests of physical fitness, motor ability, sport skills, etc., with special emphasis on the analysis and interpretation of results and their application to the school program.

Rec. 102. Recreational Games for the Elementary Schools (2). Three lectures and four laboratory periods per week. T., Th., F., 8:00; M., W., 8:00-9:00; Field House.

Materials and methods. Theory and practice in teaching games.

Hea. 120. Teaching Health in Public Schools (2). 9:00; Armory. (Davis.)

A study of material and methods in health education. Planning the health education curriculum.

Hea. 140. Methods of Teaching Hygiene and Sex Education in Secondary Schools (2). 10:00; Armory. (Davis.)

A course in personal hygiene for secondary students, including nurses' and physicians' talks to students, as given in the Baltimore Schools concerning sex education.

P. E. 200. Departmental Seminar (1). To be arranged. (Burnett, Benton, Gloss.)

Each candidate for the Master's degree will present to the group, including departmental and invited authorities: (1) a mimeographed outline of his main thesis problem, sub-problems and the tentative solutions. This must be presented and defended as to criticism in a manner satisfactory to the faculty and/or authorities present or again repeated in another term.

P. E. 220S. Contemporary Recreation (2). 11:00; G-202. (Gloss.)

The present-day status and the possible future developments of private, public, and industrial recreation.

P. E. 230S. Contemporary Physical Education (2). 10:00; G-202. (Burnett.)

The present-day status and possible future developments of community, state, federal (including military) physical fitness and physical education programs.

P. E. 250. Survey in Health, Physical Education, and Recreation (6). Arranged. (Gloss.)

A library survey course covering the total area of health, physical education and recreation, plus intensive research on one specific limited problem of which a digest, including a bibliography, is to be submitted.

P. E. 260. Research (1-6). Approval of the instructor is required. (Gloss.)

This course is for advanced students who are capable of doing individual research on some topic other than the thesis or the one chosen in P. E. 250.

Hea. 240S. Advancements in Modern Health (1). Arranged. (Davis.)

Latest knowledge of the fundamental principles involved in personal, community, state, and national health; functions and relations of various health agencies cooperating with the education faculties and their contributions to health; present status of preventive medicine and sanitation.

Science Education

Sci. Ed. S1. General Science for the Elementary School. (West.)

Section A-1: For Primary Grades (2): 11:00; N-6. Laboratory fee, \$1.00.

Section B-1: For Upper Elementary Grades (2). 10:00; N-6. Laboratory fee, \$1.00.

These courses are planned to meet the needs of the elementary school teacher. A point of view consistent with current philosophy in elementary education will be developed. The course will provide background material in selected phases of those sciences which contribute to elementary school work. An interpretation of materials of the local environment with reference to enrichment of the science program will receive attention. As much of the work as is possible will be illustrated with simple materials and apparatus and the material will be professionalized as much as possible.

There are two additional sections of this course, A-2 and B-2, which are given in alternate summers. None of the sections are prerequisite to other sections. Students may receive credit for both Sections A-1 and A-2 or B-1 and B2. Students should not enroll for both A and B Sections.

Sci. Ed. S2. Activity Materials for Science in the Elementary School (2). T., Th., 1:00-3:30; N-6. Group and individual conferences to be arranged. Class limited to thirty students. Laboratory fee, \$2.00. (West.)

A laboratory course planned to provide grade teachers with the opportunity for becoming acquainted with experiments and preparing materials which are of practical value in their science teaching.

ENGLISH

Eng. 1, 2. Composition and American Literature (3, 3). Eight periods a week. (Staff.)

Eng. 1. Section 1—Daily, 9:00; M., W., F., 10:00; E-311.

Section 2—Daily, 9:00 M., W., F., 10:00 E-314.

Section 3—Daily, 11:00; M., W., F., 1:00; T-219.

Eng. 2. Section 1—Daily, 9:00; M., W., F., 10:00; E-315.

Section 2—Daily, 9:00; M., W., F., 10:00; F-101.

Section 3—Daily, 9:00; M., W., F., 10:00; T-218.

Section 4—Daily, 11:00; M., W., F., 1:00; E-122.

Section 5—Daily, 11:00; M., W., F., 1:00; E-214.

Section 6—Daily, 1:00; M., W., F., 2:00; A-18.

Section 7—Daily 1:00; M., W., F., 2:00; A-17.

Eng. 3, 4. Composition and World Literature (3, 3). Eight periods a week.

Eng. 3. Daily, 10:00; M., W., F., 11:00; L-15. (Fleming.)

Eng. 4. Daily, 9:00; M., W., F., 8:00; E-122. (Shaumann.)

Eng. 3, 4 (or Eng. 5, 6), required of all students. Prerequisites, Eng. 1, 2.

Eng. 5, 6. Composition and English Literature (3, 3). Eight periods a week.

Eng. 5. Daily, 11:00; M., W., F., 1:00; A-148. (Feldman.)

Eng. 6. Section 1—Daily, 9:00; M., W., F., 10:00; E-112. (Mooney.)

Section 2—Daily, 10:00; M., W., F., 11:00; E-312. (Brantley.)

Eng 5, 6 (or Eng. 3, 4) required of all students. Prerequisites, Eng. 1, 2.

Eng. 8 S. College Grammar (2). 9:00; A-133. Prerequisite, Eng. 1, 2. (Harman.)

An analytical study of Modern English grammar, with lectures on the origin and history of inflectional and derivational forms.

Eng. 10. Elementary Newswriting (2). 10:00; A-133. Prerequisite, Eng. 1, 2, and permission of the instructor. (Beall.)

Practice in writing and analyzing simple news stories; fundamentals of journalistic principles.

Eng. 101 S. History of the English Language (2). 11:00; A-133. Prerequisite, Eng. 1, 2 and 3, 4 or 5, 6. (Harman.)

An historical and critical survey of the English language; its nature, origin and development.

Eng. 121 S. Milton (2). 12:00; A-133. Prerequisites, Eng. 1, 2 and 3, 4 or 5, 6. (Murphy.)

The poetry and the chief prose works.

Eng. 135 S. Literature of the Victorian Period (2). 8:00; A-133. Prerequisites, Eng. 1, 2 and 3, 4 or 5, 6. (Mooney.)

The chief writers of prose and poetry of the latter half of the Victorian period.

Eng. 143 S. Modern Poetry (2). 10:00; A-106. Prerequisites, Eng. 1, 2 and 3, 4 or 5, 6. (Schaumann.)

The chief American poets of the twentieth century.

Eng. 150 S. American Literature to 1900 (2). 9:00; A-106. Prerequisites, Eng. 1, 2 and 3, 4 or 5, 6. (Nye.)

This first half of a year course considers representative American poetry and prose from colonial times to 1850.

Eng. 210 S. Seminar in Seventeenth-Century Literature (2). Arranged. Prerequisite, graduate standing. (Murphy.)

Eng. 227 S. Problems in American Literature (2). M., W., 10-11. Room arranged. Prerequisite, graduate standing. (Nye.)

The course of American thought from 1860-1914.

ENTOMOLOGY

Ent. 115 S. Field Problems in Entomology (1). Not given in 1947.

Ent. 114 S. Bee Keeping (1). Not offered in 1947.

Ent. 201. Advanced Entomology. (Credit and prerequisites to be determined by the department). To be arranged. (Cory and Staff.)

Studies of minor problems in morphology, taxonomy, and applied entomology, with particular reference to the preparation of the student for individual research.

Ent. 202. Research. (Credit depends upon the amount of work done.) To be arranged. (Cory and Staff.)

Required of graduate students majoring in Entomology. This course involves research on an approved project. A dissertation suitable for publication must be submitted at the conclusion of the studies as a part of the requirements for an advanced degree.

FOREIGN LANGUAGES AND LITERATURE

The first semester of beginning language will not be offered. Second-year language (French, German, or Spanish 4 and 5) will be offered in a reading course granting credit for either first or second semester, depending on the student's preparation.

French

Fr. 2. Elementary French (3). Eight periods a week; daily, 8:00; M., W., F., 10:00; A-17. (Second semester of first-year French). (Falls.)

Elements of grammar; pronunciation and conversation; exercises in composition and translation.

Fr. 4. Intermediate Literary French (3). Eight periods a week; daily, 9:00; M., W., F., 11:00; A-17. Prerequisite, French 1 and 2 or equivalent. (Falls.)

Translation; conversation; exercises in pronunciation. Reading of texts designed to give some knowledge of French life, thought, and culture.

German

Ger. 2. Elementary German (3). Eight periods a week; daily, 8:00; M., W., F., 10:00; A-300. (Second semester of first year German.) (Hammerschlag.)

Ger. 4. Intermediate Literary German (3). Eight periods a week; daily, 9:00; M., W., F., 11:00; A-300. (Hammerschlag.)

Reading of narrative prose, grammar review, and oral and written practice.

Spanish

Span. 2. Elementary Spanish (3). Eight periods a week; daily, 8:00; M., W., F., 10:00; A-306. (Second semester of first-year Spanish.) (Kramer.)

Span. 4. Intermediate Spanish (3). Eight periods a week; daily, 9:00; M., W., F., 11:00; A-306. (Kramer.)

Translation, conversation, exercise in pronunciation. Reading of texts designed to give some knowledge of Spanish and Latin-American life, thought, and culture.

GOVERNMENT AND POLITICS

G. & P. 1. American Government (3). Eight periods a week. Daily, 8:00; M., W., F., 10:00; A-207. (Rader.)

The basic course in government for the American Civilization program; a comprehensive study of governments in the United States.

G. & P. 7. Comparative Government (2). Prerequisite, G. & P. 1. 10:00; A-212. (Steinmeyer.)

A comparative study of the governments of Great Britain, France, and Switzerland.

G. & P. 8. Comparative Government (2). Prerequisite, G. & P. 1. 1:00; A-207. (Rader.)

A comparative study of the governments of Italy, Germany, and Russia.

G. & P. 154. Problems of World Politics (3). Eight periods a week. Daily, 9:00; M., W., F., 11:00; A-207. (Steinmeyer.)

Governmental problems of an international character, such as causes of war, problems of neutrality, and propaganda.

HISTORY

H. 5. History of American Civilization (3). Eight periods a week.

Section 1—Daily, 8:00; M., W., F., 9:00; A-1. (Wellborn.)

Section 2—Daily, 10:00; A-130; M., W., F. 11:00; A-106. (Chatelain.)

From the colonial period through the American Civil War. Required of all students for graduation.

H. 6. History of American Civilization (3). Eight periods a week.

Section 1—Daily, 9:00; M., W., F., 10:00; A-203. (Merrill.)

Section 2—Daily, 11:00; A-130; M., W., F., 1:00; A-133. (Gordon.)

From the American Civil War to the present. Required of all students for graduation.

H. 108 S. The United States in the Twentieth Century (2). 12:00; A-203. (Merrill.)

A study of political developments and some of the outstanding social and economic problems of the last fifty years.

H. 115 S. The Old South (2). 9:00; T-219. (Owsley.)

Life, institutions and culture in the ante-bellum South with particular reference to the development of Southern nationalism and its place in the background of the Civil War.

H. 121 S. Western America (2). 11:00; A-209. (Wellborn.)

A consideration of some significant factors in the shaping of the frontier and of its influence upon American development.

H. 141 S. History of Maryland (2). 8:00; A-106. (Chatelain.)

Selected topics illustrative of the political, social and economic factors in the development of Maryland as colony and state.

H. 176 S. Europe in the Twentieth Century (2). 1:00; A-106. (Bauer.)

European developments since the first World War and their global impacts and significance.

H. 186 S. The British Commonwealth of Nations (2). 9:00; A-210. (Gordon.)

A survey of the rise of the British Commonwealths of Canada, Australia, New Zealand and South Africa and their significance in the world pattern.

H. 191 S. History of Russia (2). 3:00; A-106. (Bauer.)

A survey of Russian history with special emphasis upon the developments, policies and changes of the nineteenth and twentieth centuries.

H. 216 S. Reconstruction and Its Aftermath (2). 1:00-2:00, M., W.; Taliaferro Room. (Owsley).

A seminar on problems resulting from the Civil War. Political, social, and economic reconstruction in South and North; projection of certain post-war attitudes into the present and consideration of such matters as the race problem, sectional prejudices and their manifestations, the poll tax, freight rates, and filibustering.

HOME ECONOMICS**Clo. 20a and b.* Colthing Construction (3).** 8:00-10:50; H-132. Laboratory fee, \$3.00. (Akin.)

Each student is required to complete a minimum of two garments. The course is planned to develop technical skill in garment construction and to give experience in the selection of fabrics and fashions suited to individual needs.

or

Clo. 22. Clothing Construction (2). 8:00-9:50; H-132. Laboratory fee, \$3.00. (Akin.)

Continuation of Clo. 0 with emphasis on figure analysis, fitting problems and workmanship.

Tex. 106 S. Recent Developments in Textiles (2). 11:00; H-9. Laboratory fee, \$3.00. (Akin.)

Study of the newer fabrics for household and family use with opportunities to examine and to test them for durability and care. There will be lectures, demonstrations, class discussions and field trips to textile testing laboratories and to textile exhibits.

Nut. 10 S. Elements of Nutrition (2). 10:00-10:50; H-222. (Taylor.)
Presented for elementary school teachers, teachers of physical education and persons who need a general knowledge of nutrition.**Nut. 212 S. Nutrition for Community Service (2).** 11:00-11:50; H-222. (Taylor.)

Applications of the principles of nutrition to various community problems. Students may work on problems of their own choosing.

or

Nut. 210 S. Readings in Nutrition (2). 11:00-11:50; H-222. (Taylor.)
Reports and discussion of outstanding nutrition research and investigation.**Foods and Nut. 220. Seminar (1).** 9:00-9:50; H-222; M., W., F. (Taylor.)

*Students with no sewing experience will please register for Clo. 20b; others for Clo. 20a.

Home Mgt. 145 S. Recent Trends in Home Management and Equipment (2). 8:00-8:50; H-222. Laboratory fee, \$3.00. (Crow.)

Study of modern time and energy saving materials and methods used in household processes and of small and large household equipment available or being manufactured at the present time; its selection, use and care.

Home Mgt. 152. Practice in the Management of a Home (3). Laboratory fee, \$7.00. (Crow.)

There will be two periods of Home Management Home Residence; June 9 to July 12 and July 14 to August 16. Enrollment will be limited to those who at the present time are registered in the College of Education or in the College of Home Economics.

H. E. S200. Workshop in Family Life Education (2). July 16 to August 1, daily including Saturday. 10:00-3:00; one hour for lunch to be arranged. H-19, 20. (Dean Marie Mount, Director of the Work Shop; Evelyn Miller of Fort Hill High School, Cumberland, Assistant.) Enrollment limited to 30.

An opportunity for home economics teachers to become familiar with recent trends and new materials in the field of family relationships. The program of work will be built around the problems and needs of those participating. Each student will work on a project of her own selection either individually or as a member of a small group. Dr. Muriel Brown of the U. S. Office of Education will act as consultant in Family Life Education and Dr. Edna Meshke, Associate Professor of Home Education, will act as consultant on methods and evaluation.

HORTICULTURE

Hort. 115 S. Truck Crop Management (1). Not given in 1947.

Hort. 123 S. Ornamental Horticulture (1). Not given in 1947.

Hort. 124 S. Tree and Small Fruit Management (1). First three weeks.

To be arranged. (Haut and Schrader.)

Primarily designed for vocational agricultural teachers and county agents. Special emphasis will be placed upon new and improved commercial methods of production of the leading tree and small fruit crops. Current problems and their solution will receive special attention.

LIBRARY SCIENCE

L. S. 101. School Library Administration (2). 9:00; L-15. (Hobson.)

The organization and maintenance of effective library service in the modern school. Planning and equipping library quarters, purpose of the library in the school, standards, instruction in the use of books and libraries, training student assistants, acquisition of materials, repair of books, publicity, exhibits, and other practical problems.

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MATHEMATICS

Math. 1. Introductory Algebra (0). Eight lectures a week. Daily, 12:00; E-131; M., W., F., 1:00; E-131. Prerequisite, one unit of algebra. Open to students of engineering and required of students who fail in the qualifying examination in Math. 15.

A review of the topics covered in a second course in algebra.

Math. 2. Solid Geometry (0). 9:00; E-131. Prerequisite, plane geometry. Open to students who enter deficient in solid geometry.

Lines, planes, cylinders, cones, the sphere and polyhedra, primary emphasis on mensuration. Intended for engineers and science students.

Math. 6. Mathematics of Finance (3). Eight lectures a week. Daily, 10:00; E-131. M., W., F., 11:00; E-131. Prerequisite, Math. 5 or equivalent. Open to students in the College of Business and Public Administration.

Simple and compound interest, discount, amortization, sinking funds, valuation of bonds, depreciation, annuities, and insurance.

Math. 11. Trigonometry and Analytic Geometry (3). Eight lectures a week. Daily, 10:00; E-212; M., W., F., 11:00; E-212. Prerequisite, Math. 10 or equivalent. Open to biological, pre-medical, pre-dental, and general Arts and Science students. This course is not recommended for students planning to enroll in Math. 20.

Trigonometric functions, identities, addition formulas, solution of triangles, coordinates, locus problems, the straight line and circle, conic sections, graphs.

Math. 14. Plane Trigonometry (2). Four sections.

Section 1—9:00; E-212.

Section 2—9:00; E-213.

Section 3—9:00; E-214.

Section 4—10:00; E-214.

Prerequisite, Math. 15 or concurrent enrollment in Math. 15. Open to students in engineering, education, and the physical sciences.

Trigonometric functions, identities, the radian, graphs, addition formulas, solution of triangles, trigonometric equations.

Math. 15. College Algebra (3). Three sections. Eight lectures a week.

Section 1—10:00; E-213; M., W., F., 11:00; E-213.

Section 2—10:00; E-304; M., W., F., 11:00; E-304.

Section 3—8:00; E-304; M., W., F., 9:00; E-304.

Prerequisite, high school algebra completed. Open to students in engineering, education, and the physical sciences.

Fundamental operations, variations, functions and graphs, quadratic equations, theory of equations, binomial theorem, complex numbers, logarithms, determinants, progressions.

Math. 17. Analytic Geometry (4). Five sections. Eight lectures, four drill periods a week.

Section 1—M., T., W., Th., F., S., 8:00; E-305; M., T., W., Th., F., S., 9:00; E-305.

Section 2—M., T., W., Th., F., S., 8:00; E-306; M., T., W., Th., F., S., 9:00; E-306.

Section 3—M., T., W., Th., F., S., 8:00; E-307; M., T., W., Th., F., S., 9:00; E-307.

Section 4—M., T., W., Th., F., S., 10:00; E-305; M., T., W., Th., F., S., 11:00; E-305.

Section 5—M., T., W., Th., F., S., 10:00; E-306; M., T., W., Th., F., S., 11:00; E-306.

Prerequisite, Math. 14, 15, or equivalent. Open to students in engineering, education, and the physical science.

Coordinates, locus problems, the straight line and circle, graphs, transformation of coordinates, conic sections, parametric equations, transcendental equations, solid analytic geometry.

Math. 21. Calculus (4). Eight lectures, four drill periods a week. M., T., W., Th., F., S., 8:00-9:00; E-312. Prerequisite, Math. 20 or equivalent. Open to students in engineering, education, and the physical sciences. (Vanderslice.)

Integration with geometric and physical applications, partial derivatives, space geometry, multiple integrals, infinite series.

Math. 101 S. Higher Algebra (2). 9:00; E-110. Prerequisite, Math. 20, 21, or equivalent. (Good.)

Selected topics in algebra will be taken up from a point of view designed to strengthen and deepen the grasp of the subject.

Math. 129 S. Higher Geometry (2). 8:00; E-110. Prerequisite, two years of college mathematics. Open to students in the College of Education. (Jackson.)

This course is designed for students preparing to teach geometry in high school and will be devoted to the axiomatic development of Euclidean and Non-Euclidean geometry.

Math. 200. Modern Algebra (3). Eight lectures a week. Daily, 10:00; E-110; M., W., F., 11:00; E-110. Prerequisite, Math. 103 or consent of instructor. (Good.)

Matrices, groups, rings, fields, algebraic numbers, Galois theory.

MUSIC

Mus. 1. Music Appreciation (3). Eight periods a week. Daily, 8:00; M., W., F., 9:00; B-1. (Randall.)

Designed especially for teachers. Music from time of Hayden (late 18th century) to the present is considered and played on the phonograph or performed by visiting musicians.

Mus. S 3. History of American Music (2). 12:00; B-1. (Randall.)

This course, designed to be an integral part of the American Civilization program, reviews the development of music in the United States from Colonial days to the present time. Our history is divided into three parts: From early Colonial days to 1800, 1800 to the Civil War, 1865 to the present. Phases of our musical history which are studied include: Early Hymn Writers, Stephen Foster, the Negro Spiritual, and 20th century music.

PHILOSOPHY**Phil. 181 S. Aesthetics (2). 10:00; T-314. (Hoekstra.)**

A general introduction to aesthetics with emphasis on current American theory.

Phil. 182 S. Current Systems of Thought (2). 11:00; T-314. (Hoekstra.)

A general introduction to present systems of philosophy.

PHYSICS**Phys. 11. Fundamentals of Physics: Sound, Optics, Magnetism, and Electricity (4).**

The second half of a course in general physics. Prerequisites, Phys. 10 or 20. Laboratory fee, \$5.00. (Myers, Wright, Reaves.)

Lecture—M., T., W., Th., F.—8. Room E-18.

Recitation—T., Th.—11:00; (F.—11:00, 1st, 3rd, 5th weeks) in E-18.

Lab. Lecture—M., W.—9:00 (Th., 2:00, 2nd, 4th, 6th weeks) in E-18.

Laboratory—M., W.—10:00, 11:00 (F.—9:00, 10:00, 2nd, 4th, 6th weeks) in A-300.

Phys. 21. General Physics: Sound, Optics, Magnetism, and Electricity (5).

The second half of a course in general physics. Required of all students in the engineering curricula. Prerequisite, Phys. 20. Math. 21 is to be taken concurrently. Laboratory fee, \$5.00. (Myers, Wright, Reaves.)

Lecture—M., T., W., Th., F., 12:00; Room E-18.

Recitation—M., T., W., Th., F.—8:00; Room E-131.

Lab. Lecture—M., W., 9:00 (Th., 2:00, 2nd, 4th, 6th weeks) in A-300.

Laboratory—T., Th.—9:00, 10:00 (F., 9:00, 10:00, 1st 3rd, 5th weeks) in A-300.

POULTRY**P. H. 111 S. Poultry Genetics and Nutrition (1). To be arranged. (Jull and Briggs.)**

This course is designed primarily for teachers of vocational agriculture and county agents. The inheritance of egg and meat production, hatchability and other characters are presented. The nutritive requirements of poultry are discussed with special reference to the role of proteins, vitamins, and minerals in meeting those requirements.

P. H. 112 S. Poultry Products and Marketing (1). Not given in 1947.

PSYCHOLOGY

University Counseling Bureau. The Department of Psychology maintains a Counseling Bureau, provided with a well-trained technical staff and equipped with an excellent stock of standardized tests of aptitude, ability and interest. The services of this Bureau are available to Summer Session students.

Psych. 1. S. Introduction to Psychology (2). 9:00; A-14. (Hackman.)

A basic introductory course, intended to bring the student into contact with the major problems confronting psychology and the more important attempts at their solution.

Psych. 2 S. Applied Psychology (2). 10:00; A-204. (Hackman.)

Application of research methods to basic human problems in business and industry, in the professions, and in other practical problems of everyday life.

Psych. 110. Educational Psychology (3). Eight periods a week; daily, 8:00; M., W., F., 9:00; A-204. (Schaefer.)

Researches on fundamental problems in education; measurement and significance of individual differences, learning, motivation, transfer of training.

Psych. 121 S. Social Psychology (2). 10.00; A-18. (Schaefer.) Prerequisite, Psych. 1.

Psychological study of human behavior in social situations; influence of others on individual behavior; social conflict and social adjustment; communication and its influence on normal social activity.

Psych. 125 S. Child Psychology (2). 11:00; A-204; (Schaefer.) Prerequisite, Psych. 1.

Behavioral analysis of normal development and normal socialization of the growing child.

Psych. 130 S. Mental Hygiene (2). Lectures, M., T., Th., F., 11:00; A-212; clinic, W., 2:00-4:00. (Sprowls.) Prerequisite, Psych. 1.

The more common deviations of personality; typical methods of adjustment. The weekly clinic will be held at St. Elizabeth's Hospital.

Psych. 131 S. Abnormal Psychology (2). Lectures, M, T., Th., F., 10:00; N-105; clinic, W., 2:00-4:00. (Sprowls.) Prerequisite, Psych. 130.

The nature, occurrence, and causes of marked psychological abnormalities, with emphasis on clinical, rather than theoretical aspects.

Psych. 150 S. Psychological Tests and Measurements (2). 10:00; T-219. Laboratory fee, \$4.00. (Smith.) Prerequisite, consent of instructor.

Critical survey of predictors used in vocational and educational orientation; practice in their use and interpretation.

Psych. 216 S. Seminar in Clinical Psychology for Teachers (2). Arranged. (Sprowls). Prerequisite, consent of instructor.

A systematic consideration of clinical procedures in treating psychological problems of pupils.

Psych. 299 S. Graduate Research in Psychotechnology (2-4). Arranged. (Hackman.) Prerequisite, consent of instructor.

Credit will be apportioned to work accomplished.

SOCIOLOGY

Soc. 1. Sociology of American Life (3). Eight periods a week.

Section 1—Daily, 8:00; M., W., F., 9:00; A-12. (Imse.)

Sociological analysis of the American social structure; metropolitan, small town, and rural communities; population distribution, composition and change; social organization.

Soc. 2. Principles of Sociology (3). Eight periods a week; daily, 10:00; M., W., F., 11:00; A-14. (Hutchinson.)

The basic forms of human association and interaction; social processes; institutions; culture; human nature and personality.

Soc. 14 S. Urban Sociology (2). 11:00; A-210. (Ebersole.)

Urban growth and expansion; characteristics of city populations; urban institutional and personality patterns; relations of city and country.

Soc. 115 S. Industrial Sociology (2). 10:00; T-219. (Imse.)

Social organization of American industry; functions of members of industrial organization; status, social structure, patterns of interaction and relations of industry and society.

Soc. 120 S. Population (2). 10:00; M-107. (Baker.)

Population distribution, composition and growth in North America and Eurasia; trends in fertility and mortality; migrations; population prospects and policies.

Soc. 123 S. Ethnic Minorities (2). 12:00; A-210. (Lejins.)

Basic social processes in the relations of ethnic groups within the state; immigration groups and the Negro in the United States; ethnic minorities in Europe.

Soc. 124 S. The Culture of the American Indian (2). 11:00 DW-106. (Hutchinson.)

A study of type cultures; cultural processes; and the effects of acculturation on selected tribes of Indians in the Americas.

Soc. 141 S. Sociology of Personality (2). 10:00; E-122. (Ebersole.)

Development of human nature and personality in contemporary social life; processes of socialization; attitudes, individual differences, and social behavior.

Soc. 145 S. Social Control (2). 8:00; A-18. (Ebersole.)

Forms, mechanisms, and techniques of group influence on human behavior; problems of social control in contemporary society.

Soc. 153 S. Juvenile Delinquency (2). 10:00; A-210. (Lejins.)

Juvenile delinquency in relation to the general problem of crime; analysis of factors underlying juvenile delinquency; treatment and prevention.

Soc. 255 S. Seminar: Juvenile Delinquency (2). To be arranged. (Lejins.)

Soc. 291 S. Special Social Problems (Credit to be determined). (Staff.)

Individual research on selected problems.

ZOOLOGY

Zool. 1. General Zoology (4). Five lectures and five two-hour laboratory periods a week. Lecture, 8:00; M-107; laboratory, 9:00-10:00; M-203. Laboratory fee, \$6.00. (Burhoe.)

This course, which is cultural and practical in its aim, deals with the basic principles of animal life. Typical invertebrates and a mammalian form are studied.

Zool. 2. Fundamentals of Zoology (4). Five lectures and five two-hour laboratory periods a week. Lecture, 11:00; M-107; laboratory, 9:00-10:00; M-302. Laboratory fee, 6.00. (Littleford.)

A thorough study of the anatomy, classification, and life histories of representative invertebrate animals.

Zool. 5. Comparative Vertebrate Morphology (4). Five lectures and five two-hour laboratory periods a week. Lecture, 9:00; M-107; laboratory, 10:00-11:00; M-105. Prerequisite, one course in zoology. Laboratory fee, \$6.00. (Werner.)

A comparative study of selected organ systems in certain vertebrate groups.

