

THE  
UNIVERSITY of MARYLAND  
BULLETIN



*Summer School*

1966

The provisions of this publication are not to be regarded as an irrevocable contract between the student and the University of Maryland. The University reserves the right to change any provision or requirement at any time within the student's term of residence. The University further reserves the right, at any time, to ask a student to withdraw when it considers such action to be in the best interests of the University.

SUMMER  
SCHOOL  
1966

THE  
UNIVERSITY  
OF  
MARYLAND

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## ADMISSION:

1. Students who were registered with the University during the preceding semester need only to appear for registration at the time indicated on page vii.
2. All *new undergraduate* and *special* students must file an application with the Admissions office by June 1, 1966 and must have been admitted to the University before registering for classes.
3. All *new graduate* students must file an application and all supporting records with the office of the Dean of the Graduate School by June 1, 1966 and must have been admitted to the University before registering for classes.

## REGISTRATION

1. All students report to the McKeldin Library according to the alphabetical schedule on page vii of this catalog.
2. After securing registration materials at the McKeldin Library students report to adviser and/or dean. Approval of student's program must be secured by both the adviser and dean. *Graduate students in the College of Education must secure the approval of the Dean of the College of Education as well as the Dean of the Graduate School.*
3. When programs for students are approved, they report to the Armory where registration is completed.

## SUMMER SCHOOL CALENDAR

June 22—Wednesday	Classes begin
June 25—Saturday	Classes (Monday Schedule)
July 4—Monday	Independence Day, Holiday
July 9—Saturday	Classes (Tuesday Schedule)
August 12—Friday	Summer Session Ends

# University Calendar, 1966-67

(TENTATIVE)

## *FALL SEMESTER, 1966*

### SEPTEMBER

12-16 Monday-Friday—Fall Semester Registration

19 Monday—Instruction begins

### NOVEMBER

23 Wednesday, after last class—Thanksgiving recess begins

28 Monday, 8:00 A. M.—Thanksgiving recess ends

### DECEMBER

21 Wednesday, after last class—Christmas recess begins

### JANUARY

3 Tuesday, 8:00 A. M.—Christmas recess ends

18 Wednesday—Pre-exam Study Day

19-25 Thursday-Wednesday—Fall Semester Examinations

## *SPRING SEMESTER, 1967*

### JANUARY

31-Feb. 3 Tuesday-Friday—Spring Semester Registration

### FEBRUARY

6 Monday—Instruction begins

22 Wednesday—Washington's Birthday, holiday

### MARCH

23 Thursday, after last class—Easter recess begins

28 Tuesday, 8:00 A. M.—Easter recess ends

### MAY

10 Wednesday—AFROTC Day

24 Wednesday—Pre-exam Study Day

25-June 2 Thursday-Friday—Spring Semester Examinations

28 Sunday—Baccalaureate Exercises

30 Tuesday—Memorial Day, holiday

### JUNE

3 Saturday—Commencement Exercises

## *SUMMER SESSION, 1967*

### JUNE

19-20 Monday-Tuesday—Registration, Summer Session

21 Wednesday—Instruction begins

24 Saturday—Classes (Monday schedule)

### JULY

4 Tuesday—Independence Day, holiday

8 Saturday—Classes (Tuesday schedule)

### AUGUST

11 Friday—Summer Session Ends

## *SHORT COURSES, SUMMER, 1967*

### JUNE

12-17 Monday-Saturday—Rural Women's Short Course

### AUGUST

7-11 Monday-Friday—4-H Club Week

### SEPTEMBER

5-8 Tuesday-Friday—Firemen's Short Course



# REGISTRATION SCHEDULE

## SUMMER SCHOOL 1966

MONDAY and TUESDAY, JUNE 20 and 21, 1966

To expedite registration, students have been grouped on the basis of the first letters of the last name. No student will be permitted into McKeldin Library until the appropriate time, as listed below.

	<i>Monday</i>	<i>Tuesday</i>
8:15	DO-EZ	SA-SGL
8:40	FA-FZ	SGM-SS
9:05	GA-GRL	ST-TD
9:30	GRM-HD	TE-V
9:55	HE-HR	WA-WH
10:20	HS-J	WI-Y
10:45	KA-KR	Z-BAL
11:10	KS-LI	BAM-BL
11:30	LJ-MA	BM-BT
1:00	MB-MN	BU-CH
1:25	MO-NI	CI-CO
1:50	NJ-PH	CP-DN
2:15	PI-RE	
2:40	RF-RZ	

Library, Packet Distribution—Monday 8:15 to 3:45 Only

Tuesday 8:15 to 3:00 Only

Armory, Registration Processing—8:30 to 4:45 Only

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### ASSISTANT TO THE PRESIDENT FOR RESEARCH

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*Emeriti*

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**DIRECTOR OF STUDENT HEALTH SERVICE**

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**DIRECTOR OF THE SUMMER SESSION**

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**HEAD, DEPARTMENT OF AIR SCIENCE**

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*Division Chairmen*

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GENERAL COMMITTEE ON STUDENT LIFE AND WELFARE  
COMMITTEE ON ADMISSIONS AND SCHOLASTIC STANDING  
COMMITTEE ON INSTRUCTIONAL PROCEDURES  
COMMITTEE ON SCHEDULING AND REGISTRATION  
COMMITTEE ON PROGRAMS, CURRICULA AND COURSES  
COMMITTEE ON FACULTY RESEARCH  
COMMITTEE ON PUBLIC FUNCTIONS AND COMMENCEMENTS  
COMMITTEE ON LIBRARIES  
COMMITTEE ON UNIVERSITY PUBLICATIONS  
COMMITTEE ON INTERCOLLEGIATE COMPETITION  
COMMITTEE ON PROFESSIONAL ETHICS, ACADEMIC FREEDOM  
AND TENURE  
COMMITTEE ON APPOINTMENTS, PROMOTIONS AND SALARIES  
COMMITTEE ON FACULTY LIFE AND WELFARE  
COMMITTEE ON MEMBERSHIP AND REPRESENTATION  
COMMITTEE ON COUNSELING OF STUDENTS  
COMMITTEE ON THE FUTURE OF THE UNIVERSITY

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FINANCIAL AIDS AND SELF-HELP  
STUDENT PUBLICATIONS AND COMMUNICATIONS  
RELIGIOUS LIFE  
STUDENT HEALTH AND SAFETY  
STUDENT DISCIPLINE  
BALTIMORE CAMPUS, STUDENT AFFAIRS





# The School

THE SUMMER SCHOOL OF THE UNIVERSITY OF MARYLAND AT COLLEGE PARK provides the opportunity for year-round study and research. For this purpose, the University offers an extensive and varied program of undergraduate and graduate courses, as well as lectures, special institutes and workshops for educators. More than 8,500 students from the 50 states and approximately 55 foreign countries are expected to attend the University during the eight-week period, June 20 through August 12, within which are included eight-week and six-week courses, and workshops and institutes of varying length.

The Summer School provides educational opportunities for teachers and school administrators. A variety of enrichment experiences in areas of specialization are available and students are encouraged to participate in them.

Through its summer program, the University makes its resources available to students desiring a general education as well as to those students interested in preparing for professional, scientific and technical areas which require graduate level work.

The courses offered in the summer session are regular University courses, with few exceptions. Each college on the College Park campus is represented in the School's offerings. Courses offered by the Summer School are taught by members of the faculty or visiting lecturers of demonstrated outstanding ability. Many departments have increased their course offerings for the 1966 summer session to provide students enrolled during the academic year an opportunity to continue their studies during the summer. Courses offered include those which enable students to accelerate their programs of study, and to remove deficiencies. The academic program offered in the summer session provides outstanding educational opportunities to visiting students pursuing degrees at other institutions.

A Recreation and Social Activities Committee, working with a full-time Director of Summer Recreation, has planned a varied program of activities of interest to students attending the University during the summer session. University swimming pools will be open with scheduled hours each afternoon and evening. There will be softball, tennis, and golf tournaments, and a summer theatre workshop in which students are invited to participate. Additional opportunities will be added if interest is indicated.

Planned activities will include round and square dancing, movies, Chapel vesper services, band concerts, art exhibits, guided tours of Washington, and other social functions. The Director of Summer Recreation will be available to counsel with groups planning social events.

# Academic Information

## *Terms of Admission*

All Summer School students new to the University must be officially admitted. This applies to all non-degree as well as degree candidates.

## *Undergraduate and Special Students*

A student seeking a bachelor's degree in any undergraduate college, who has not been previously admitted to the University, must file application with the Director of Admissions *not later than June 1, 1966*.

A student who already has a bachelor's degree and who either does not wish graduate credit or does not meet requirements for admission to the Graduate School may be admitted as a Special Student to the undergraduate college consistent with his major interests. He should be admitted to the University through the Director of Admissions *no later than June 1, 1966*. Credit so obtained through the College of Education is ordinarily accepted for renewal of teaching certificate. A Special Student may not take courses numbered 200 or above.

## *Graduate Students*

Application for admission to the Graduate School, and all supporting academic records, must be in the office of the Dean of the Graduate School by June 1, 1966.

**TRANSFER CREDIT: TO ANOTHER INSTITUTION.** The student who wishes to transfer credit to another institution should submit an application on which he writes "For Transfer Only." With the application he should submit a letter from the graduate dean of the institution in which he is enrolled as a degree student, to the Dean of the Graduate School, University of Maryland, requesting permission to work during the summer at the University.

**TRANSFER CREDIT: TO THE UNIVERSITY OF MARYLAND.** Credit not to exceed six semester hours for course work at other recognized institutions may be applied towards the master's degree, only when such course work has been taken after the student has been admitted to the University of Maryland Graduate School. Before taking course work for transfer the student must have the approval of his adviser, the head of his major department, and the Dean of the Graduate School. Normally, approval may be given only for courses which are not offered by the University of Maryland during the period of the student's attendance. The request for transfer of credit shall be submitted to the Graduate Council for approval when the student applies for admission to candidacy. The candidate is subject to final examination by this institution in all work offered for the degree.

**SPECIAL NON-DEGREE CREDIT.** The student who already has a master's degree and does not wish to pursue a doctoral program may submit an

application marked "Non-Degree" and with it, an official transcript of all previous undergraduate and graduate study. If the student later desires to embark on a doctoral program, the credit earned in Special Non-Degree status may, at the discretion of the major adviser, be used in a doctoral program.

**DEGREE CREDIT.** The student who wishes to pursue either a master's or doctoral program must submit, with his application, official transcripts of all work taken in institutions of higher education. The applicant is subject to admission requirements of the Graduate School and of the department in which he hopes to pursue his graduate work.

### *Academic Credit*

The semester hour is the unit of credit. During the summer session a course meeting five times a week for six weeks or four times a week for eight weeks, each requiring the normal amount of outside work, is given a weight of three semester hours. Each class period is 80 minutes in length.

Students who are matriculated as candidates for degrees will be given credit toward the appropriate degree for satisfactory completion of courses. All courses offered in the Summer School are creditable toward the appropriate degree provided they are included in the student's program as planned with his adviser.

All students will receive an official grade report specifying the amount and quality of work completed.

### *Marking System*

The following symbols are used for marks: A, B, C, and D—passing; F—Failure; I—Incomplete. Mark A denotes superior scholarship; mark B, good scholarship; mark C, fair scholarship; and D, passing scholarship. The mark of "I" (incomplete) is exceptional. Complete regulations governing marks are printed in the University's *General and Academic Regulations*.

### *Maximum Load*

Students may earn credit at the discretion of their respective advisers in accordance with the following guide lines:

#### UNDERGRADUATES

Students enrolled only in courses of eight-week duration may earn from eight-ten credits.

Students enrolled only in courses of six-week duration may earn from six-eight credits.

Students enrolled in combinations of six- and eight-week courses may earn seven-nine credits.

## ACADEMIC INFORMATION

### GRADUATE

Students enrolled only in courses of eight-week duration may earn a maximum of eight credits.

Students enrolled in courses of six-week duration may earn a maximum of six credits.

Students enrolled in combinations of six- and eight-week courses may earn a maximum of seven credits.

### *Summer Graduate Work*

Appropriate courses offered by the Summer School may be counted toward any graduate degree program. Doctoral degrees offered through the Graduate School are as follows: Doctor of Philosophy and Doctor of Education. Master's 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, and Master of Music. A full year of residence or the equivalent is the minimum requirement for each degree. The requirement for any of the above degrees may be obtained upon request from the Graduate School.

For the benefit of the graduate students pursuing doctoral work, the Summer School will provide preparatory courses, French 0, and German 0, in preparation for the Fall examinations. Please contact the Department of Foreign Languages for the exact dates for application and examination.

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 from the College of Education. Students seeking the master's degree as a qualification for a certificate issued by the Maryland State Department of Education or any other certifying agency should consult the appropriate bulletin for specific 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.

### *Candidates for Degrees*

All students who expect to complete requirements for degrees during the summer session should make application for diplomas at the office of the Registrar during the first two weeks of the summer session.

### *General Education Program*

The University has instituted a new series of related course requirements which together constitute a general education program.

Essentially, this program includes nine semester-hour credits of English (three credits of composition, six of literature); six credits in history (three credits in U. S. history and three in non-U. S. history); six credits chosen from various fields of the social sciences; seven credits in science; three credits in mathematics; three credits in fine arts or in philosophy. Two semesters of physical education and a course in health education are required of all undergraduates.

Specific courses which may be used to satisfy these general education requirements are administered by four of the campus colleges; the various offerings are coordinated by a Director of the General Education Program for the University. Greater detail will be found in the publication, *General and Academic Regulations*.

## General Information

### *Registration*

Every student planning to register for one or more courses must be admitted to the University, regardless of his desire to become a degree or non-degree student. See information on page v on Admissions.

Day division students currently enrolled in the University as undergraduates or graduates who are presently, and at the conclusion of the Spring 1966 Semester, in good academic standing may register for the summer session without further application. All new graduate students must obtain admission to the University from the Graduate School before registration.

Registration for *all* undergraduate and graduate day division students will take place in accordance with Registration Schedule printed on page vii of this catalog. No student will be permitted to begin registration before the time listed in the Registration Schedule. Registration materials will be distributed in McKeldin Library according to the alphabetical schedule on Page vii of this catalog. *All students must secure registration materials at the Library before going to deans or advisors. Registration materials are not available from offices of deans or advisors.* Registration cards must be approved by both the student's advisor and dean. Graduate students must secure the approval of the Dean of the Graduate School. Graduate students in *The College of Education* must secure the approval of the Dean, College of Education, as well as Dean, Graduate School.

After approval, registrations are completed at the Armory where students secure section assignments, receive bills, pay fees, and submit all forms to the Registrar's representatives. *Until all completed forms are submitted to the Registrar's representatives and fees paid, registration is neither complete nor official.*

## GENERAL INFORMATION

Students may register in "late registration" at the Registrar's Office on June 22. After June 22, exceptional cases may be registered only after approval of the appropriate dean. The late registration fee, charged on and after June 22, is \$20.00.

### *Length of Class Period*

Classes during the 1966 summer session will meet on the following time schedule:

8:00 — 9:20  
9:30 — 10:50  
11:00 — 12:20  
12:30 — 1:50  
2:00 — 3:20  
3:30 — 4:50

### Weekly Class Schedule

#### 6-week classes

2-credit courses meet 4 days as indicated in the bulletin.

3-credit courses meet daily.

4-credit courses meet daily and include multiple periods for laboratory.

#### 8-week classes

2-credit courses meet M.W.F.

3-credit courses meet M.T.Th.F.

4-credit courses meet daily, plus laboratory time.

### *Definition of Residence and Non-residence*

Students who are minors are considered to be resident students if at the time of their registration their parents have been domiciled in the State of Maryland for at least six months.

The status of the residence of a student is determined at the time of his first registration in the University and may not thereafter be changed by him unless, in the case of a minor, his parents move to and become legal residents of Maryland by maintaining such residence for at least six months. However, the right of the minor student to change from a non-resident status to resident status must be established by him prior to the registration period set for any semester or session.

Adult students are considered to be residents if at the time of their registration they have been domiciled in Maryland for at least six months, provided such residence has not been acquired while attending any school or college in Maryland or elsewhere. Time spent on active duty in the armed services while stationed in Maryland will not be considered as satisfying the six-months period referred to above except in those cases

## GENERAL INFORMATION

in which the adult was domiciled in Maryland for at least six months prior to his entrance into the armed service and was not enrolled in any school during that period.

The word "domicile" as used in this regulation shall mean the permanent place of abode. For the purpose of this rule only one domicile may be maintained.

### *Tuition and Fees*

#### ALL STUDENTS

Auxiliary facilities fee . . . . .	\$ 3.00
Infirmary fee (voluntary for graduate students) . . . . .	1.00
Vehicle Registration Fee—Each vehicle . . . . .	2.00
Recreation fee . . . . .	1.00

#### UNDERGRADUATE STUDENTS

General tuition fee, per credit hour . . . . .	\$18.00
Nonresidence fee . . . . .	15.00
Per session. Must be paid by all students who are not residents of Maryland.	
Application fee . . . . .	10.00

#### GRADUATE STUDENTS

Application or matriculation fee . . . . .	10.00
Payable only once upon admission. Every student must be admitted.	
General tuition fee, per credit hour . . . . .	\$24.00
Testing fee (new graduate students in Education only) . . . . .	5.00

#### MISCELLANEOUS INFORMATION

Auditors pay the same fees as regular students.

The graduation fee is \$10.00 for bachelor's and master's degrees, and \$50.00 for doctoral degrees.

A fee of \$5.00 is charged for each change in program after June 24. If such change involves entrance to a course, it must be approved by the instructor in charge of the course entered. Courses cannot be dropped after July 8. All changes must be approved by the appropriate dean and filed in the Office of the Registrar.

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

## GENERAL INFORMATION

Laboratory courses in chemistry carry laboratory fees of \$12.00 and \$20.00; in addition the student is charged for any apparatus which cannot be returned to the stock room in perfect condition. Other laboratory fees are stated in connection with individual courses.

Physical education fee charged each student registered for any physical activity course, \$6.00.

Late registration fee, \$20.00.

An additional late application fee of \$10.00 will be assessed against students who fail to apply for graduation within the first three (3) weeks of a summer session (on or before July 8). Students who apply after the end of the fourth week (after June 15) of a summer session will be required to wait for the next academic semester in order to obtain a diploma.

### WITHDRAWAL AND REFUND OF FEES

Any student compelled to leave the University at any time during the summer session must secure the Application for Withdrawal form from the office of his dean and file it in the Office of the Registrar, bearing the proper signatures. If this is not done, the student will not be entitled, as a matter of course, to a certificate of honorable dismissal, and will forfeit his right to any refunds to which he would otherwise be entitled. The date used in computing refunds is the date the Application for Withdrawal is filed in the Office of the Registrar.

In the case of a minor, official withdrawal will be permitted only with the written consent of the student's parent or guardian.

With the exception of board charges, students withdrawing from the University will receive a refund of all charges, except the matriculation fee, in accordance with the following schedule:

<i>Period From Date Instruction Begins</i>	<i>Percentage Refundable</i>
One week or less . . . . .	70%
Between one and two weeks . . . . .	50%
Between two and three weeks . . . . .	20%
After three weeks . . . . .	0

No refunds of fixed charges, lodging, tuition, laboratory fees, etc., are allowed when courses are dropped, unless the student withdraws from the University.

### *Living Accommodations and Food Service*

Residence Hall accommodations are available only to students who are attending the University Summer School program or duly recognized workshops and conferences. When a student terminates his academic association with the University, he also terminates his room contract. Listings of off-



## GENERAL INFORMATION

campus rooms, apartments, and houses are available in the University Housing Office, North Administration Building.

The facilities of the residence halls typically include study rooms, lounges, recreation centers, laundry equipment, and public telephones. The typical student room is for double occupancy and is furnished with beds, chests, desks, and chairs. Residents supply other essential items such as study lamp, waste basket, laundry bag, pillow, linen, and other accessories. The Gordon-Davis Linen Supply Company, 1620 North 11th Street, Philadelphia, Pennsylvania 19122, is authorized to offer all resident students a complete weekly linen rental service. Additional information may be obtained from the company, or arrangements for linen service can be made after arrival.

All students are held responsible for compliance with University regulations.

Housing accommodations are available at the following costs, on the basis indicated:

<i>Regular Residence Halls</i>	<i>Double Occupancy</i>	<i>Single Occupancy</i>
Six week session . . . . .	\$54.00	\$ 78.00
Eight week session . . . . .	72.00	104.00

The appropriate multiple of the weekly rates of \$9.00 for double occupancy and \$13.00 for single occupancy will be charged to students enrolled in workshops and other special courses of less than six weeks' duration.

No room deposit is required for the summer session; however, the full applicable room charge is payable at registration. *No refunds of room charges will be made after the third week of classes.*

Early application for a reservation is advisable. Only those who have made reservations can be assured that rooms are available for occupancy upon their arrival. If you desire to make application for campus residence, please complete, sign and return the Room Application Card found in this bulletin. Indicate (1) exact dates and number of weeks of attendance, (2) your classification (e.g., graduate, undergraduate, Human Development Workshop, special name of any other workshop, Pre-College Summer Session.); (3) type of room desired; (4) and whether or not you desire a six or eight weeks' board contract on a pre-paid basis. It is impossible to honor all room assignment requests. Since most of the rooms in the residence halls are double rooms, there is no guarantee that a request for a single room can be granted. *Only a limited number of single rooms are available* and these are assigned on a first come, first served basis. You will be notified by mail after June 1 of the time and place to claim your room. Room reservations will be cancelled after noon on Wednesday, June 22.

The University residence halls will open for occupancy at 2:00 p.m., Sunday, June 19. Room assignment is for the summer sessions only. Stu-

## GENERAL INFORMATION

dents will be expected to move out of the residence halls as soon as possible after the last class on Friday, August 12, 1966, but not later than 7:00 p.m. on that date. Your residence hall assignment for the summer in no way affects your housing assignment for the following academic year. If you are to be a full-time undergraduate student during the regular academic year and if you desire campus residence, you will be required to apply for a residence hall space in the regular way by submitting a Housing Application form in accordance with instructions outlined in the *Residence Halls* booklet.

If you need to ship baggage, the following steps are suggested: (1) address to: Central Receiving, University of Maryland, College Park, Maryland 20742, (2) be sure all postage, shipping, and customs duties are prepaid (shipments will not be accepted unless all charges are prepaid), and (3) when a student who has shipped personal belongings reports to the University, he must call for his luggage at the Central Receiving Warehouse. The University does not make delivery to the residence units.

Food Service is available to all students under the following options:

- (a) Cafeteria style with cash payment for each individual meal.
- (b) On a prepaid basis for six or eight weeks only at the following rates payable in full at registration:
  - \$72.00 for the Six Weeks Session
  - \$96.00 for the Eight Weeks Session

Food services cannot be contracted on a weekly basis. The prepaid or contract basis includes twenty meals each week (the Sunday evening meal is not included).

Refund of the prepaid board charges will be made only in the cases of withdrawal from the University or the residence halls. This refund will be made on a pro rata weekly basis.

### *Student Health*

The University Infirmary, located on the campus near the Student Union, provides medical service for the undergraduate students in the summer session, and also for those graduate students who elect to pay the \$1.00 Health Service fee. Students who are ill should report promptly to the University Infirmary in person. Serious emergencies may be reported by phone to Ext. 7666 or 7667, or if transportation for emergency is needed call 333 on campus phone or 864-1122 on a pay phone. Doctor's Office hours are: Week days, 9:00 a.m. to 4:00 p.m.; week ends, 10:00 a.m. to 11:00 a.m. Nurses are on duty 24 hours each day and doctor's are on call for serious conditions after regular office hours.

### *Parking of Automobiles*

For use of students, staff members, and employees, several parking lots are provided. Students may park in lot 1,3, 7, 10 and 11. All other lots are

reserved for faculty and staff members. The University rules forbid the parking of cars on any campus road. These rules are enforced by campus police.

If you do not intend to operate a vehicle on the College Park Campus during the 1965-66 academic year or summer session you are required to sign a non-driver declaration.

### *Libraries*

Libraries of the University are located on the College Park and Baltimore campuses. They consist of the general University Library (the McKeldin Library), the Engineering and Physical Sciences Library, and the Chemistry Library in College Park; and the Health Sciences Library and the Law Library in Baltimore. The libraries have a total book collection of over 750,000 cataloged volumes, and more than 8,000 periodicals and newspapers are received currently.

In addition to the total of cataloged volumes cited above, the College Park libraries contain over 140,000 U. S. government and United Nations documents, 340,000 negatives and prints, 2,600 film strips, 5,150 slides, and thousands of phonorecords, maps, and technical reports.

Bibliographical facilities of these libraries include, in addition to the card catalogs, printed catalogs of other libraries, e.g., British Museum, Bibliotheque Nationale, and Library of Congress, as well as trade bibliographies of foreign countries, special bibliographies of subject fields and similar research aids.

In the McKeldin Library are study carrels available to faculty members and graduate students whose study and research require extensive use of library materials. Lockers are likewise available for assignment to graduate students. Facilities for reading microtext materials and for use of typewriters are also provided. Interlibrary loan service from other institutions is provided for those engaged in research.

### *University Bookstore*

For the convenience of students, the University maintains a University Bookstore, located in the Student Union Building, where students may obtain at reasonable prices textbooks, stationery, classroom materials and equipment. The Bookstore operates on a cash basis.

### *For Additional Information*

Detailed information concerning fees and expenses, scholarships and awards, student life, and other material of a general nature, may be found in the University publication titled *An Adventure in Learning*. This publication may be obtained on request from the Catalog Mailing Room,

## GENERAL INFORMATION

North Administration Building, University of Maryland at College Park. A detailed explanation of the regulation of student and academic life, may be found in the University publication titled, *University General and Academic Regulations*. This is mailed in September and February of each year to all new undergraduate students. Requests for course catalogs for the individual schools and colleges should be directed to the deans of these respective units, addressed to:

### COLLEGES LOCATED AT COLLEGE PARK:

Dean  
(College in which you are interested)  
The University of Maryland  
College Park, Maryland 20740

### PROFESSIONAL SCHOOLS LOCATED AT BALTIMORE:

Dean  
(School in which you are interested)  
The University of Maryland  
Lombard and Greene Streets  
Baltimore, Maryland 21201

## Special Summer Activities

As an integral part of its summer program, the University offers a Summer Lecture Series; institutes supported by the National Science Foundation, National Defense Education Act, and other granting organizations; and specialized educational activities through workshops. Opportunities for participating and specific information about these events are provided

### *The Summer Lecture Series*

A series of lectures, open to members of the University community, is planned for the 1966 summer session. For the series, distinguished scholars, national leaders, and important state and University officials are usually invited to speak.

A committee of the faculty selects the theme for the lectures, and invites the speakers. The lectures are a contribution to the social and cultural offerings of the summer session.

Lecturers are scheduled for the convenience of students and faculty in air conditioned facilities on the College Park campus.

## Institutes and Workshops

Descriptive information on the workshops listed below may be found on the following pages. Communication regarding these special programs should be addressed to the director, as indicated, University of Maryland, College Park, Maryland, 20742.

All workshops and institute students must be admitted to the University according to procedures described on page 2.

### *Institutes*

#### NATIONAL DEFENSE EDUCATION ACT

Institute in Counseling and Guidance

Dr. Phillip M. Ray, Counseling Center

Institute for Secondary School Teachers of Composition

Dr. John Portz, English Department

Institute for Secondary School Teachers of Geography

Prof. Jeremy H. Anderson, Geography Department

#### NATIONAL SCIENCE FOUNDATION

Institute for High School Teachers of Biology

Dr. J. David Lockard, College of Education and Botany

Institute for Teachers of Mathematics in Junior High School

Prof. J. H. Henkelman, College of Education and Mathematics

## INSTITUTES AND WORKSHOPS

### *Workshops*

Advances in Health Science and Health Education

*Dr. Warren R. Johnson, College of Physical Education, Recreation and Health*

Education of Children with Learning Impairments

*Dr. Betty Simms, College of Education*

Educators Workshop on Automatic Data Processing

*Dr. Arthur S. Patrick, College of Business and Public Administration*

European Travel Seminar

*Dr. Leo W. O'Neill, College of Education*

Family Finance

*Prof. C. Raymond Anderson, College of Business and Public Administration*

Human Development—Scientific Concepts and Laboratory

*Dr. H. Gerthson Morgan, College of Education*

Human Development—Two-week workshops

Child Study Leaders

Application of Human Development Principles in the Classroom

Human Development and Religious Education

Action Research in Human Development Education

*Dr. Fred R. Thompson, College of Education*

Human Relations in Educational Administration

*Dr. Clarence Newell, College of Education*

Instructional Materials

*Prof. Dale W. Brown, Library Science Education*

Modern Physical Education Programs

*Dr. Dale L. Hanson, College of Physical Education, Recreation and Health*

Scholastic Journalism

*Prof. William Noall, Department of Journalism*

School Recreation for Exceptional Children

*Prof. Ron Johnson, College of Physical Education, Recreation and Health*

Supervision of Student Teachers

*Mr. James Collins, College of Education*

Team Teaching

*Mr. James Kleman, College of Education*

Trade and Industrial Teacher Certification

*Dr. Joseph Luetkemeyer, Department of Industrial Education*

Typewriting Demonstration for Business Education Teachers

*Prof. Jane O'Neill, College of Business and Public Administration*

**ADVANCEMENTS IN HEALTH SCIENCE AND  
HEALTH EDUCATION (Hea. 189) three or six credits**

An Institute will be provided for the updating of teachers, nurses and others concerned with the health and health education of school-aged children and youth. Topics covered will include: major health hazards, mental health and social adjustment, sex education, consumer education and problems and trends in health education.

Guest speakers and discussion leaders will be specialists from the National Institutes of Health and other health centers.

Six-week participation, six hours credit; three week participation, three hours credit, 8:30-11:30 a.m. daily, June 20-July 29.

**EDUCATION OF CHILDREN WITH LEARNING IMPAIRMENTS  
(Ed. 189-29) four credits**

The workshop will consider the theoretical background and the methods, curricula and materials employed in the approach to the various learning problems of children.

Opportunities for observation, participation and consultation in program planning, curriculum organization, and the use of methods and materials will be provided according to the primary learning problems involved: Mentally Handicapped (Educable), Mentally Deficient (Trainable), Perceptual Learning Problems, Disturbances in Emotional Development, and Motor Handicapped. Selected consultants will be utilized.

The workshop will meet off-campus daily from 9:00-12:30 June 20 to July 29. Four units of undergraduate or graduate credit may be earned.

Students planning to attend the Workshop should request the Special Education Summer Session Brochure for program details from Program of Special Education, University of Maryland, College Park, Maryland.

**EDUCATOR'S WORKSHOP ON AUTOMATIC  
DATA PROCESSING (Ed. 189-53) six credits**

This workshop should be of particular interest to those persons teaching and supervising courses in business and mathematics. *No formal mathematics is required as a prerequisite to this workshop.*

Opportunities will be provided to study (1) the principles of IBM punch-card data systems, (2) the basic concepts of computers, (3) a programming language and (4) the construction of courses, curriculum design, and the qualifications of teachers in ADP.

Workshop lectures are scheduled from 9:00 a.m. to 12:00, special laboratories and conferences from 1:30 to 3:00 p.m., June 20-July 29.

## INSTITUTES AND WORKSHOPS

### EUROPEAN TRAVEL SEMINAR (189-72) six credits

The seminar is an opportunity to travel and study abroad this summer. The tour will cover the major continental capitals, London, Rome and Paris with visits to historic buildings, leading museums and galleries, as well as attendance at concerts, theatre and the ballet. During the six week seminar, students will be free to make their own travel arrangements on weekends as well as during a designated period at the end of the first month of the tour, for special interest activities.

### EDUCATION IN FAMILY FINANCE WORKSHOP (Ed. 189-1) four credits

A four-week, four-credit workshop—June 20-July 15—providing the opportunity for teachers to develop concepts and understandings relative to the role of the individual in the American business economy. Content studied includes family financial planning, principles of investing, problems of home ownership, agencies and processes for consumer protection, pension plans and social security, principles of taxation, and control of consumer credit.

Workshop activities include lectures, demonstration teaching, group processes, and the development of curricular and teaching materials.

This Workshop is offered in conjunction with the National Committee for Education in Family Finance. Scholarships covering board and tuition will be granted to qualified applicants. Interested persons should apply in advance.

### HUMAN DEVELOPMENT—SCIENTIFIC CONCEPTS AND LABORATORY (H.D. Ed. 112-115, 212-215) six credits

The Institute for Child Study, College of Education, offers a six-week human development workshop each summer providing opportunities for (1) study and synthesis of scientific knowledge about human behavior; (2) experience in the analysis of case records; (3) preparation of study group leaders for in-service child and youth study programs; (4) planning in-service child and youth study programs for teachers or other human relations workers; (5) planning preservice teacher education courses and laboratory experiences for prospective teachers; (6) examination of implications of scientific knowledge about human development and behavior for school organization, curriculum development, guidance services, club leadership, and other programs and procedures designed to foster mental health and optimal development of children, youth, and adults.

### HUMAN DEVELOPMENT—Two-week Workshops

#### CHILD STUDY LEADERS WORKSHOP (Ed. 189-33) two credits

For leaders and prospective leaders of child and youth study groups who cannot attend the full six weeks workshop, a two-week workshop will be



held on the University campus from June 20 to July 1. Each day's activities will include a lecture-discussion period centering around major scientific concepts explaining growth, development, and behavior; laboratory periods for analyzing case record material at the first, second, or third year level of the program; reading and special interest periods. (Participants will choose the year level of the group they expect to lead). Two hours' credit can be earned for full time participation in this workshop.

### APPLICATIONS OF HUMAN DEVELOPMENT PRINCIPLES IN CLASSROOMS (Ed. 189-35) two credits

For people who have had three or more years of child study experience either in workshops or in groups during the school year, a two credit workshop will be held at the University from July 5 to July 15. Classroom practices will be examined in the light of human development principles, and procedures will be studied for possible beyond-third-year action research projects during the school year. Opportunities will be offered also to superintendents, supervisors, and principals who are interested in exploring the implications of human development principles for school operation.

### HUMAN DEVELOPMENT AND RELIGIOUS EDUCATION (ED.189-36) two credits

Two workshops in human development, each for two credit hours, for persons in the field of religious education will be held on the University campus from July 18 to July 29. These workshops will be entirely non-denominational and any person responsibly concerned with religious education can appropriately enroll regardless of his faith.

A workshop for persons without prior workshop experience will examine scientific knowledge about human development, learning, behavior and adjustment, and will practice in vacation, weekday, and Sunday schools operated by church groups.

Advanced workshops for persons who have had a previous workshop in Human Development and Religious Education will provide advanced experiences with concepts and analyses.

### ACTION RESEARCH IN HUMAN DEVELOPMENT EDUCATION (Ed. 189-37) two credits

A workshop for teachers and other school personnel who are interested in learning more about action research or in initiating action research projects in their own schools. This two credit workshop will be held at the University from August 1 to 12. The role of action research in the solution of educational problems will be emphasized. Participants will have the opportunity to learn about and to develop designs and instruments for carrying out action research in their own schools and classrooms. Preference in enrollment will be given to persons coming as teams for the

## INSTITUTES AND WORKSHOPS

purpose of developing an action research design for implementation in their own school or school system.

### HUMAN RELATIONS IN EDUCATIONAL ADMINISTRATION (Ed. 189-26) six credits

This workshop is concerned with the development of leadership teams capable of providing in-service programs in human relations in local school systems. In addition to basic theory, the workshop will center on the practice and acquisition of specific human relations skills.

Preference in enrollment will be given to teams representing Maryland school systems which have participated in the workshop in the past, and to teams of four to six persons designated by other Maryland school systems.

Enrollment in the workshop will be limited. Applications for team participation from local school systems will be processed in the order received. If more than one application is received at the same time, the director of the workshop will make the final decision.

The workshop will meet daily from 9:00 a.m. to 3:00 p.m., June 20 through July 29. A student may earn six semester hours of graduate credit.

### INSTRUCTIONAL MATERIALS (Ed. 189-8) three credits

The Workshop in Instructional Materials will be offered for school librarians at all levels, school administrators, and classroom teachers in grades kindergarten to twelve, July 18 to August 5. It is designed to give librarians, teachers, and other school personnel an opportunity to work together on problems in the selection, organization and utilization of instructional materials in school programs. Consideration will be given to materials of all types, including: books, films, filmstrips, records, free and inexpensive materials. All grade levels and subject areas will be included. A student may earn three hours of graduate or undergraduate credit in Education or Library Science.

### MODERN PHYSICAL EDUCATION PROGRAMS (P. E. S.189) three or six credits

This workshop is directed toward physical education teachers of all grade levels. It is offered in two sessions of three weeks each. Either one or both sessions may be taken. Session I will be concerned with physical education curriculum "dynamics" while Session II will be directed toward the study of problems defined by the numbers of the group.

This workshop will meet from 8:30 a.m. to 12:00 noon daily for each three weeks session. Each session will carry 3 credits, either graduate or undergraduate. The credits are counted as CONTENT for meeting the requirements for the "Advanced Professional Certificate" in Maryland.

SESSION I—JUNE 20-JULY 8

Topics for consideration will include: the impact of society on youth, the growth and developmental approach to physical education, principles of motor learning, physical fitness principles, and guidance into physical education activities.

SESSION II—JULY 11-JULY 29

For the second session, the workshop will be divided into two groups:

Group A—will concern themselves with instruction and participation in selected motor skills. The scope of this offering will be appropriate for Physical Education teachers in Elementary Schools, Junior High Schools and Senior High Schools.

Group A will not be available to graduate students.

Group B—problems defined by the individual members of the group will be studied in a similar manner. Independent study projects will be undertaken.

SCHOLASTIC JOURNALISM WORKSHOP

(Jour. 189 S) three credits

The Scholastic Journalism Workshop is sponsored by the Department of Journalism in cooperation with the Maryland-Delaware Press Association and the Maryland Scholastic Press Advisers Association.

This workshop for school newspaper advisers puts emphasis on the scholastic press: objectives, editing, reporting, head writing, head schedule, layout, production, circulation, advertising, photography and staff. One edition of a paper is produced under a supervision by members of the workshop.

This workshop, devoting all of its time to scholastic journalism, will meet from 10:00 to 12:00 and 1:00 to 3:30, daily, June 20-July 8, in the Journalism Building. Three hours of credit may be earned.

SCHOOL RECREATION FOR EXCEPTIONAL CHILDREN

(Rec. 189-B) four credits

In cooperation with the Special Education Summer Workshop Program, the College of Physical Education, Recreation, and Health offers an off-campus Recreation Workshop for teachers and prospective professionals. The workshop will be centered around an actual recreation program conducted for the exceptional children participating in other portions of the Special Education Workshop.

## INSTITUTES AND WORKSHOPS

Opportunities will be provided for students to gain first-hand information regarding the planning, organizing, and administering of school recreational activities for children with learning problems. Lectures, seminar sessions, and cooperative organization of useful materials will be based upon the essentials of the laboratory practicum.

The workshop will meet daily from 12:30-3:30 p.m., June 20-July 29, and will offer the undergraduate and/or special student four semester hours credit.

### SUPERVISION OF STUDENT TEACHERS (Ed. 189-7) three credits

The workshop is planned for qualified and experienced teachers who may be assigned a student teacher during the school year. The characteristics of good student teaching programs are studied, as well as such topics as the role of the cooperating teacher, university supervisor, principal, etc. Research material, consultants, and teacher education literature are used.

The workshop will provide both large and small group activities. These activities will include formal presentations by the instructional staff, including visiting consultants. It will also provide opportunities to study and discuss problems and materials related to this phase of teacher education. The roles and responsibilities of supervisory personnel will also be considered.

The workshop will meet 9:30 a.m.-3:30 p.m. daily from June 20 to July 8.

### TEAM TEACHING (Ed. 189-57) three credits

A workshop on team teaching will be offered to classroom teachers and school administrators for three weeks from June 20 to July 8. It is designed to give the teachers and administrators an opportunity to develop team teaching projects to be implemented in their local schools. Teams of teachers from individual schools are encouraged to make application.

Team teaching is an organizational concept for instruction in which a group of teachers, in a cooperative venture, may undertake an educational program that provides more challenging opportunities and enriching experiences for students. Team teaching proposes to improve instruction through the reorganization of personnel, resulting in a team of two or more teachers with complimentary talents working cooperatively, who assume joint responsibility for the planning, administration and evaluation of the educational program for a distinct student group. Large group instruction, small group instruction, independent study, programmed instruction, and other newer media of instruction will be considered. Lectures will include some given by school personnel who have been involved in successful team teaching experiences. The workshop will meet daily from 9:30 a.m. to 3:30 p.m. Enrollment will be limited and preferences will be given to teachers with two or more years of experience.

**TRADE AND INDUSTRIAL TEACHER CERTIFICATION  
WORKSHOP (Ed. 189-67) one credit**

The trade and Industrial Teacher Certification Workshop is sponsored by the Department of Industrial Education, in cooperation with the Division of Vocational Education, Maryland State Department of Education.

This workshop offers professional assistance to teachers and prospective teachers of vocational education. Specific emphasis is placed upon course construction, shop organization and management, and methods of teaching. The trainees will work together in the selection, organization, and utilization of course materials. The trainees will also be involved in various activities including class demonstrations, field trips, film evaluations, textbook selection and guest lecturers.

The workshop will meet daily, Monday through Friday, 8:00 a.m. to 3:30 p.m. from June 20 to August 12.

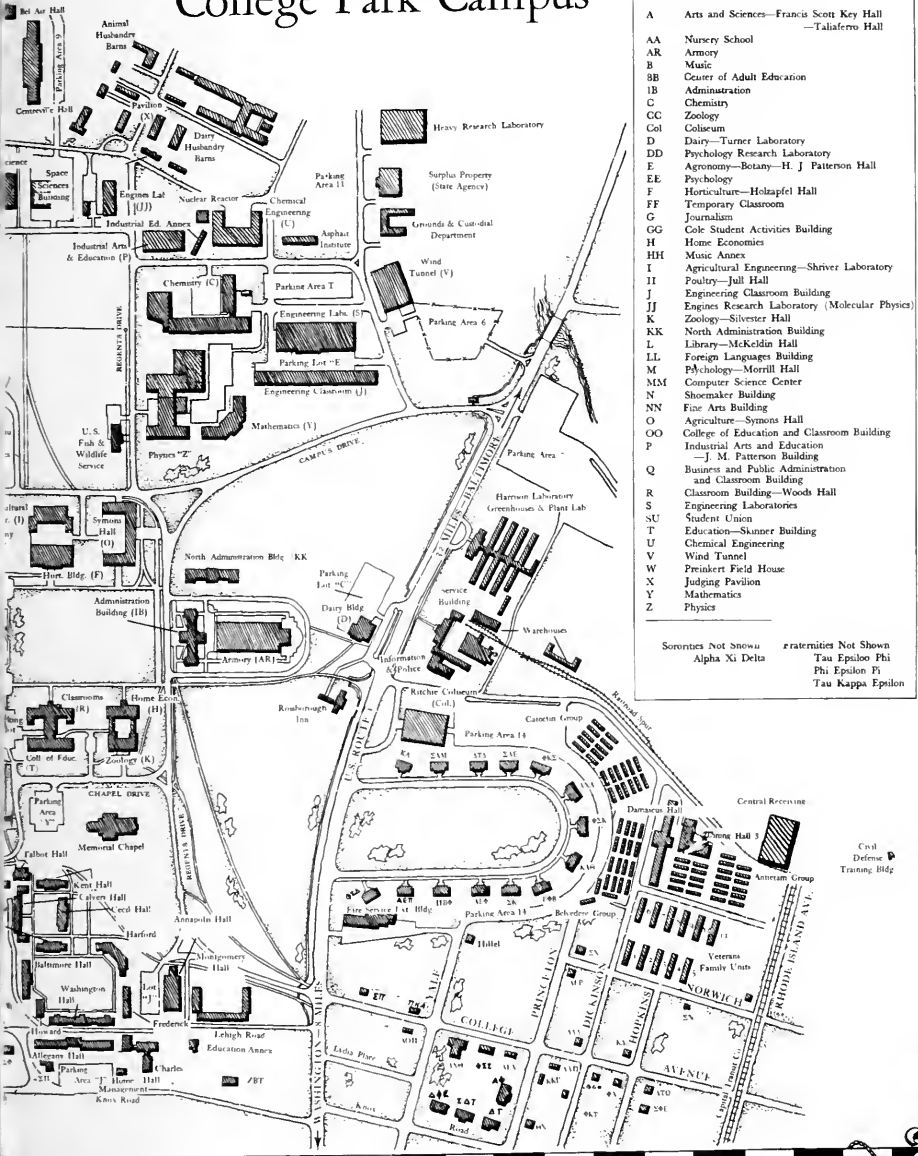
**TYPEWRITING DEMONSTRATION FOR BUSINESS EDUCATION  
TEACHERS**

The College of Education offers the business teacher registered during the summer session an opportunity to observe pupils at work in a typewriting class. These observations will aid the classroom teacher in: (1) designing purposeful classroom activities for developing basic typewriting skills, (2) planning with the pupil the organization of an effective set of "work" habits, (3) analyzing through case studies the methods of dealing with the various aspects of individual pupil progress, (4) applying the principles of the psychology of skills to the teaching of typewriting, and (5) developing improved methods for course construction, selection of instructional materials, and measuring pupil achievement.



# UNIVERSITY OF MARYLAND

## College Park Campus



### BUILDING CODE LETTERS FOR CLASS SCHEDULES

- A Arts and Sciences—Francis Scott Key Hall  
—Talafero Hall
- AA Nursery School
- AR Armory
- B Music
- 8B Center of Adult Education
- 1B Administration
- C Chemistry
- CC Zoology
- Col Coliseum
- D Dairy—Turner Laboratory
- DD Psychology Research Laboratory
- E Agronomy—Botany—H. J. Patterson Hall
- EE Psychology
- F Horticulture—Holzapfel Hall
- FF Temporary Classroom
- G Journalism
- GG Cole Student Activities Building
- H Home Economics
- HH Music Annex
- I Agricultural Engineering—Shriver Laboratory
- II Poultry—Jull Hall
- J Engineering Classroom Building
- JJ Engines Research Laboratory (Molecular Physics)
- K Zoology—Silverer Hall
- KK North Administration Building
- L Library—McKeldin Hall
- LL Foreign Languages Building
- M Psychology—Morrill Hall
- MM Computer Science Center
- N Shoemaker Building
- NN Fine Arts Building
- O Agriculture—Symons Hall
- OO College of Education and Classroom Building
- P Industrial Arts and Education  
—J. M. Patterson Building
- Q Business and Public Administration  
and Classroom Building
- R Classroom Building—Woods Hall
- S Engineering Laboratories
- SU Student Union
- T Education—Simner Building
- U Chemical Engineering
- V Wind Tunnel
- W Prunkert Field House
- X Judging Pavilion
- Y Mathematics
- Z Physics

Sororities Not Shown: Alpha Xi Delta, Tau Epsilon Phi, Phi Epsilon Phi, Tau Kappa Epsilon

Fraternities Not Shown: Tau Epsilon Phi, Phi Epsilon Phi, Tau Kappa Epsilon

Civil Defense Training Bldg

# Course Offerings

An "S" before a course number denotes that the course is offered in Summer School only. An "S" after a course number indicates a regular course modified for offering during the summer session. A more complete course description may be found in the respective College catalogues.

The University may find it necessary to cancel courses when warranted, due to low enrollment. In general, freshman and sophomore courses will not be maintained for classes smaller than 20. Minimum enrollments for upper level undergraduate courses and graduate courses will be 15 and 10 respectively.

*Unless otherwise specified, all courses will be offered for eight weeks.  
June 20-August 12, 1966.*

## AGRICULTURE

### AGRICULTURAL ECONOMICS

#### A.E. 112. AGRICULTURAL POLICY AND PROGRAMS. (3)

9:30 Daily. A study of public policies and programs related to the problem of Agriculture. Description, analysis and appraisal of current policies and programs will be emphasized. (Beal.)

#### A.E. 198. SPECIAL PROBLEMS. (1-2) (2 cr. max.)

Arranged. Concentrated reading and study in some phase or problem in Agricultural Economics. Not for graduate credit. (Staff.)

#### A.E. 301. SPECIAL PROBLEMS IN AGRICULTURAL ECONOMICS. (1-2) (4 cr. max.)

Arranged. Intensive study and analysis of specific problems in the field of Agricultural Economics, which will provide information in depth in areas of special interest to the student. (Staff.)

#### A.E. 399. RESEARCH. (1-6)

Arranged. Advanced research in Agricultural Economics. Credit according to work assigned. (Staff.)

### AGRICULTURAL ENGINEERING

#### AGR. ENGR. 189. SENIOR PROBLEM. (2)

Prerequisite, approval of Department. Students will select individual projects, prepare design, conduct experiment or analyze experimental data and present both an oral and written report to Departmental faculty. (Staff.)

#### AGR. ENGR. 198. SPECIAL PROBLEMS IN FARM MECHANICS. (1-3)

Arranged. Prerequisite, approval of department. Not acceptable for majors in agricultural engineering. Problems assigned in proportion to amount of credit. (Gienger.)



## AGRICULTURAL AND EXTENSION EDUCATION

### AGR. ENGR. 301. SPECIAL PROBLEMS IN AGRICULTURAL ENGINEERING. (1-6)

Arranged. Credit according to work assigned. (Staff.)

### AGR. ENGR. 399. RESEARCH. (1-6)

Arranged. Credit according to work assigned. (Staff.)

## AGRICULTURAL AND EXTENSION EDUCATION

### R.ED. 170, 171. CONSERVATION OF NATURAL RESOURCES. (3, 3)

June 20-July 29. Arranged; E-103. Fee, \$35.00. Designed primarily for teachers. Study of State's natural resources—soil, water fisheries, wildlife, forests and minerals—and natural resource problems and practices. Extensive field study. First course concentrates on subject matter, second includes methods of teaching conservation. Courses taken concurrently in summer session. (Norden.)

### R.ED. 180, 181. CRITIQUE IN RURAL EDUCATION. (1, 1)

Arranged. Prerequisite, approval of staff. Current problems and trends in rural education. (Staff.)

### R.ED. 198. SPECIAL PROBLEMS IN AGRICULTURAL EDUCATION. (1-3)

Arranged. Prerequisite, approval of staff. (Staff.)

### R.ED. 207, 208. PROBLEMS IN RURAL EDUCATION. (2, 2)

Arranged. Consideration of current problems and topics in rural education. (Cardozier.)

### R.ED. 301. FIELD PROBLEMS IN RURAL EDUCATION. (1-3)

Arranged. Prerequisite, approval of staff. (Staff.)

### R.ED. 302. SEMINAR IN RURAL EDUCATION. (1)

Arranged. Prerequisite, approval of staff. Problems in the organization, administration and supervision of the several agencies of rural education. Investigations, papers and reports. (Staff.)

### R.ED. 399. RESEARCH. (1-6)

Arranged. Credit according to work assigned. (Staff.)

## AGRONOMY

### AGRON. 198. SPECIAL PROBLEMS IN AGRONOMY. (1)

Arranged. Prerequisites, Agron. 10, 107, 108 or permission of instructor. A detailed study, including a written report of an important problem in agronomy. (Staff.)

### AGRON. 208. RESEARCH METHODS. (2)

Arranged. Prerequisite, permission of staff. Development of research viewpoint by detailed study and report on crop research of the Maryland Experiment Station or review of literature on specific phases of problem. (Staff.)

## AGRONOMY

### AGRON. 399. RESEARCH. (1-6)

Arranged. Credit according to work assigned.

(Staff.)

## ANIMAL SCIENCE

### AN.SC. 198. SPECIAL PROBLEMS IN ANIMAL SCIENCE. (1-2) (4 cr. max.)

Arranged. Prerequisite, approval of staff. A course designed for advanced undergraduates in which specific problems relating to animal science will be assigned. Credit according to work assigned.

(Staff.)

### AN.SC. 263. POULTRY NUTRITION LABORATORY. (2)

One lecture and one laboratory period per week. To acquaint graduate students with common basic nutrition research techniques useful in conducting experiments with poultry. Actual feeding trials with chicks as well as bacteriological and chemical assays will be performed.

(Creek.)

### AN.SC. 301. SPECIAL PROBLEMS IN ANIMAL SCIENCE. (1-2) (4 cr. max.)

Arranged. Prerequisite, approval of staff. Work assigned in proportion to amount of credit. Problems will be assigned which relate specifically to the character of work the student is pursuing.

(Staff.)

### AN.SC. 399. RESEARCH. (1-12)

Arranged. Students will be required to pursue original research in some phase of animal science, carrying the same to completion, and report the results in the form of a thesis. Credit according to work assigned.

(Staff.)

## BOTANY

### BOT. 1. GENERAL BOTANY. (4)

Lecture: M.T.Th.F., 8:00, A-1; Laboratory periods. Sec. 1 M.T.Th.F., 9:00, E-212. Sec. 2 M.T.Th.F., 11:00, E-212. Sec. 3 M.T.Th.F., 12:30, E-238, Laboratory fee, \$6.00. General introduction to Botany. Emphasis on the fundamental biological principles of higher plants.

(Harrison, Assistants.)

### BOT. 101. PLANT PHYSIOLOGY. (4)

Lecture: M.T.Th.F., 8:00, E-116. Laboratory: M.T.Th.F., 9:00, E-314. Prerequisites. Bot. 1 and General Chemistry or their equivalents. Laboratory fee, \$6.00. A survey of the general physiological activities of plants. (Open only to participants in the N.S.F. Institute.)

(Lockard.)

### BOT. 113. PLANT GEOGRAPHY. (2)

M.T.Th.F., 9:00, E-116. Prerequisite, Bot. 1 or equivalent. A study of plant distribution throughout the world and the factors generally associated with such distribution. (Useful to teachers of general cultural interest.)

(Brown.)

### BOT. 151-S. TEACHING METHODS IN BOTANY. (2)

Lecture-Laboratory: M.T.Th.F., 1:00-2:50, E-212. Prerequisite, Bot. 1 or equivalent. Laboratory fee, \$5.00. A study of the biological principles of common plants, and demonstrations, projects, and visual aids suitable for teaching in primary and secondary schools. (Open only to participants in the N.S.F. Institute.)

(Rappleye.)

**BOT. 153. FIELD BOTANY AND TAXONOMY. (2)**

M.T.Th.F., 1:00-2:50, E-308. Prerequisite, Bot. 1 or equivalent. Laboratory fee, \$5.00. The identification of trees, shrubs, and herbs, emphasizing the native plants of Maryland. Manuals, keys, and other techniques will be used. Short field trips will be taken. Each student will make an individual collection. (Open only to participants in the N.S.F. Institute.) (Brown.)

**BOT. 195. TUTORIAL READINGS IN BOTANY (HONORS course) (2 or 3)**

Time and place arranged. Prerequisite, admission to the Department of Botany Honors Program. A review of the literature dealing with a specific research problem in preparation for original research to be accomplished in Bot. 196. Papers will be assigned and discussed in frequent sessions with the instructor.

**BOT. 196. RESEARCH PROBLEMS IN BOTANY (HONORS Course) (2 or 3)**

Prerequisite, Bot. 195. Laboratory fee, \$10.00. The candidate for Honors will pursue a research problem under the direction and close supervision of a member of the faculty.

**BOT. 199-S. SEMINAR FOR NATIONAL SCIENCE FOUNDATION SUMMER INSTITUTE FOR BIOLOGY TEACHERS. (2)**

June 20-Aug. 12. Two or three hour sessions, W 9 and 2, or all day visitations. Laboratory fee, \$5.00. Includes lectures, discussions, laboratory demonstrations, and visitations in the fields of the biological sciences, especially designed for high school. (Open only to participants in the N.S.F. Institute for Biology Teachers.) (Rapplee.)

**BOT. 399. RESEARCH. (1-6)**

Arranged. Credit according to work assigned. (Staff.)

**ENTOMOLOGY**

**ENT. S-121. ENTOMOLOGY FOR SCIENCE TEACHERS. (4)**

Lectures M.T.Th.F., 8:00, O-101. Laboratory periods, M.T.Th.F., 9:00-11:50, O-200. This course will include the elements of morphology, taxonomy and biology of insects using examples commonly available to high school teachers. It will include practice in collecting, preserving, rearing and experimenting with insects. Laboratory fee, \$3.00. Open only to participants in the N.S.F. Institute. (Messersmith.)

**ENT. 198. SPECIAL PROBLEMS. (1-3)**

Arranged. Credit and prerequisites determined by the department. Investigation of assigned entomological problems. (Staff.)

**ENT. 301. ADVANCED ENTOMOLOGY.**

Arranged. Credit and prerequisite determined by the department. Independent studies of selected entomological problems with appropriate supervision. (Staff.)

**ENT. 399. RESEARCH. (1-6)**

Thesis research. Arranged. Credit according to work assigned. (Staff.)

## ART

### HORTICULTURE

#### HORT. 20. INTRODUCTION TO THE ART OF LANDSCAPING. (3)

June 20-July 29. Daily, 1:00-2:20, F-103. The theory and general principles of landscape design with their application to public and private areas.

(Soergel.)

#### HORT. 198. SPECIAL PROBLEMS. (2-4)

Arranged. For major students in horticulture or botany. Credit according to work assigned. Four credits maximum.

#### HORT. 399. ADVANCED HORTICULTURAL RESEARCH. (2-12)

Arranged. Credit according to work assigned.

(Staff.)

## ARTS AND SCIENCES

### AMERICAN STUDIES

#### AMER. STUD. 137. CONFERENCE COURSE IN AMERICAN STUDIES. (3)

M.Th., 9:30, A-164. Prerequisite, Eng. 4 or equivalent. A consideration of some major works in American Studies.

(Beall.)

#### AMER. STUD. 201 SEMINAR IN AMERICAN STUDIES. (3)

M.Th., 7:00-9:00 P.M., A-164.

(Beall.)

## ART

#### ART. 16. DRAWING I. (3)

M.T.Th.F., 8:00, NN-332. An introductory course with a variety of media and related techniques. Problems based on still life, figure, and nature.

(Forbes.)

#### ART. 17. PAINTING I. (3)

M.T.Th.F., 8:00, NN-230. Basic tools and language of painting. Oil and watercolor.

(Freeny.)

#### ART. 40. FUNDAMENTALS OF ART EDUCATION. (3)

Sec. 1, M.T.Th.F., 9:30, NN-328. Sec. 2, M.T.Th.F., 11:00, NN-328. Fundamental principles of the visual arts for teaching on the elementary level. Elements and principles of design and theory of color. Studio practice in different media.

(Lembach.)

#### ART 60. HISTORY OF ART. (3)

June 20-July 29. Daily, 12:30, NN-214. A survey of western art as expressed through architecture, sculpture and painting. First half.

(Denny.)

#### ART. 61. HISTORY OF ART (3)

June 20-July 29. Daily, 8:00-9:20, NN-214. A survey of western art as expressed through architecture, sculpture and painting. Second half.

(Lynch.)

## ART 118. SCULPTURE. (3)

M.T.Th.F., 9:30-11:00, NN-139. Volume, masses and planes, based on the use of plastic earth. Simple armature construction and methods of casting. (Freeny.)

## ART 119. PRINTMAKING I. (3)

M.T.Th.F., 9:30, 11:00, NN-137. Basic printmaking technique in relief, intaglio, and planographic media. (O'Connell.)

## ART 129. PRINTMAKING II. (3)

M.T.Th.F., 12:30-2:00, NN-137. One print medium including extensive study of color processes. Individually structured problems. (O'Connell.)

## ART 166. MEDIEVAL ART. (3)

June 20-July 29. Daily, 9:30, NN-214. Architecture, sculpture and painting in the Middle Ages. (Denny.)

## ART 292. DIRECTED GRADUATE STUDIES IN STUDIO ART. (1-3)

Arranged. (Staff.)

## ART 294. DIRECTED GRADUATE STUDIES IN ART HISTORY. (1-3)

Arranged. (Staff.)

## ART 399. RESEARCH THESIS

Arranged. Credit according to work assigned. (Staff.)

*ASTRONOMY*—see Physics and Astronomy

*CHEMISTRY*

All laboratory courses in chemistry (except Chem. 270—\$20.00) carry a laboratory fee of \$12.00; in addition the student is charged for any apparatus which cannot be returned to the stock room in perfect condition.

## CHEM. 1. GENERAL CHEMISTRY. (4)

M.T.Th.F. Four lectures and four three-hour laboratory periods per week. Lecture, 11:00, C-132. Laboratory, 1:00, 2:00, 3:00, C-119, C-120. Prerequisite, 1 year high school algebra or equivalent. (Staff.)

## CHEM. 3. GENERAL CHEMISTRY. (4)

M.T.Th.F. Four lectures and four three-hour laboratory periods per week. Lecture, 11:00, C-130. Laboratory, 1:00, 2:00, 3:00, C-105, C-117, C-118. Prerequisite, Chem. 1 (Staff.)

## CHEM. 19. ELEMENTS OF QUANTITATIVE ANALYSIS. (4)

M.T.Th.F. Lecture, 12:30-1:20, C-132. Laboratory, 8:00, 9:00, 10:00, C-306. Prerequisite, Chem. 3. Four lectures and four three-hour laboratory periods per week. (Stuntz.)

## CHEM. 37. ELEMENTARY ORGANIC CHEMISTRY. (2)

M.T.Th.F. Four lectures per week, 12:30, C-130. Prerequisite, Chem. 35. Chem. 35. (Henery-Logan.)

## CHEM. 38. ELEMENTARY ORGANIC LABORATORY. (2)

M.T.Th.F. Four three-hour laboratory periods per week. C-225. Prerequisite, Chem. 36, 8:00, 9:00, 10:00, C-202, C-204. (Henery-Logan.)

## CHEMISTRY

### CHEM. 192, 194. GLASSBLOWING LABORATORY. (1, 1)

June 20-July 29. Two four-hour laboratory periods a week. M.W. 1:00, 2:00, 3:00, 4:00; C-B3. (Carruthers.)

### CHEM. 399. RESEARCH.

Arranged. Credit according to work assigned. (Staff.)

## CLASSICAL LANGUAGES AND LITERATURES

### LATIN 102. TACITUS. (3)

M.T.Th.F., 9:30, T-102. Lectures and readings on Greek and Roman historiography before Tacitus and on the author as a writer of history. The reading of selections from the Annals and Histories. Reports. (Avery.)

## COMPUTER SCIENCE

### C. S. 12. INTRODUCTORY ALGORITHMIC METHODS. (3)

Daily, 8:00, lectures M.W.F, Lab. T.Th. 8:00. Prerequisite, Math. 11 or equivalent. Laboratory fee, \$10.00.

Designed for students not majoring in mathematics, the physical sciences, or engineering. Study of the algorithmic approach in the analysis of problems and their computational solution. Definition and use of a particular algorithmic language. Computer projects based on elementary algebra and probability; linear equations and matrices; and the ordering, searching sorting, and manipulating of data. (Lindamood.)

### C. S. 20. ELEMENTARY ALGORITHMIC ANALYSIS. (3)

Daily, 9:30, lectures M.W.F. Lab. T.Th., 9:30. Prerequisite, Math. 20, or concurrent registration therein, or equivalent. Laboratory fee, \$10.00.

Concept and properties of an algorithm, language and notation for describing algorithms, analysis of computational problems and development of algorithms for their solution, use of specific algorithmic languages in solving problems from numerical mathematics, completion of several projects using a computer. (Schweppe.)

### C. S. 100. LANGUAGE AND STRUCTURE OF COMPUTERS. (3)

Daily, 9:30, lectures M.W.F. Lab. T.Th., 9:30. Prerequisite, C. S. 12 or C. S. 20 or equivalent. Laboratory fee, \$10.00.

Logical basis of computer structure, machine representation of numbers and characters, flow of control, instruction codes, arithmetic and logical operations, indexing and indirect addressing, input-output, push-down stacks, symbolic representation of programs and assembly systems, subroutine linkage, macros, interpretative systems, and recent advances in computer organization. Several computer projects to illustrate basic concepts. (Parnas.)

## ENGLISH

### ENG. 1. COMPOSITION. (3)

(Barnes, Staff.)

Section 1—M.T.Th.F., 8:00; A-18

Section 2—M.T.Th.F., 8:00; F-103

Section 3—M.T.Th.F., 9:30; A-17

Section 4—M.T.Th.F., 9:30; A-300

Section 5—M.T.Th.F., 9:30; A-18

Section 6—M.T.Th.F., 11:00; F-103

Section 7—M.T.Th.F., 11:00; F-104

ENG. 3, 4. WORLD LITERATURE. (3, 3)

Prerequisite, Eng. 1 or 21.

(Cooley, Staff.)

ENG. 3—

(Staff.)

- Section 1—M.T.Th.F., 8:00; A-48
- Section 2—M.T.Th.F., 8:00; A-49
- Section 3—M.T.Th.F., 9:30; A-48
- Section 4—M.T.Th.F., 9:30; A-49
- Section 5—M.T.Th.F., 9:30; A-167
- Section 6—M.T.Th.F., 11:00; A-48
- Section 7—M.T.Th.F., 11:00; A-49

ENG. 4—

(Staff.)

- Section 1—M.T.Th.F., 8:00; A-228
- Section 2—M.T.Th.F., 8:00; A-14
- Section 3—M.T.Th.F., 8:00; A-104
- Section 4—M.T.Th.F., 9:30; A-14
- Section 5—M.T.Th.F., 9:30; A-104
- Section 6—M.T.Th.F., 9:30; A-106
- Section 7—M.T.Th.F., 9:30; A-110
- Section 8—M.T.Th.F., 11:00; A-14
- Section 9—M.T.Th.F., 11:00; A-104

ENG. 8. INTRODUCTION TO ENGLISH GRAMMAR. (3)

M.T.Th.F., 9:30; A-16. Prerequisite, Eng. 1 or 21. A brief review of traditional of English grammar and an expanded introduction to structural grammar, including phonology, morphology, and syntax. (Birdsall.)

ENG. 101. HISTORY OF THE ENGLISH LANGUAGE. (3)

M.T.Th.F., 8:00; A-17. Prerequisite, Eng. 4 or equivalent. (Birdsall.)

ENG. 115. SHAKESPEARE. (3)

M.T.Th.F., 8:00; A-167. Prerequisite, Eng. 4 or equivalent. Outstanding plays to Shakespeare's mid-career. (D. Smith.)

ENG. 116. SHAKESPEARE. (3)

M.T.Th.F., 11:00; A-167. Prerequisite, Eng. 4 or equivalent. The Roman history plays, the great tragedies, and the dramatic romances. (Zeeveld.)

ENG. 120. ENGLISH DRAMA FROM 1660 TO 1800. (3)

M.T.Th.F., 9:30; A-130. Prerequisite, Eng. 4 or equivalent. (Ward.)

ENG. 122. LITERATURE OF THE SEVENTEENTH CENTURY, 1600-1660. (3)

M.T.Th.F., 9:30; A-174. Prerequisite, Eng. 4 or equivalent. The major non-dramatic writers (exclusive of Milton). (Wilson.)

ENG. 126. LITERATURE OF THE EIGHTEENTH CENTURY. (3)

M.T.Th.F., 9:30; A-159. Prerequisite, Eng. 4 or equivalent. (Myers.)

ENG. 130. LITERATURE OF THE ROMANTIC PERIOD. (3)

M.T.Th.F., 11:00; A-130. Prerequisite, Eng. 4 or equivalent. (Howard.)

## ENGLISH

- ENG. 135. LITERATURE OF THE VICTORIAN PERIOD. (3)  
M.T.Th.F., 9:30; A-161 Prerequisite Eng. 4 or equivalent. (Cooley.)
- ENG. 144. MODERN DRAMA. (3)  
M.T.Th.F., 11:00; A-174. Prerequisite, Eng. 4 or equivalent. (Bryer.)
- ENG. 150. AMERICAN LITERATURE. (3)  
M.T.Th.F., 11:00; A-18. Prerequisite, Eng. 4 or equivalent. American prose and poetry in 1850. (Gravely.)
- ENG. 151. AMERICAN LITERATURE. (3)  
M.T.Th.F., 9:30; A-258. Prerequisite, Eng. 4 or equivalent. American prose and poetry since 1850. (Bryer.)
- ENG. 155. MAJOR AMERICAN WRITERS. (3)  
M.T.Th.F., 8:00; A-258. Prerequisite, Eng. 4 or equivalent. Poe and Hawthorne. (Gravely.)
- ENG. 156. MAJOR AMERICAN WRITERS. (3)  
M.T.Th.F., 11:00; A-258. Prerequisite, Eng. 4 or equivalent. Two modern writers. (Lutwack.)
- ENG. 157. INTRODUCTION TO FOLKLORE. (3)  
M.T.Th.F., 11:00; A-17. Prerequisite, Eng. 4 or equivalent. (Birdsall.)
- ENG. 160. ADVANCED EXPOSITORY WRITING. (3)  
Prerequisite, Eng. 4 or equivalent.  
M.T.Th.F., 8:00; A-174. (Myers.)
- ENG. 201. BIBLIOGRAPHY AND METHODS. (3)  
Section 1—M.Th. 1:30-3:30; A-163 (Pitts.)  
Section 2—M.Th., 7:00-9:00; A-163 (Mish.)
- ENG. 204. SEMINAR IN MEDIEVAL LITERATURE. (3)  
M.Th., 1:30-3:30; A-7 (Cooley.)
- ENG. 206. SEMINAR IN RENAISSANCE LITERATURE. (3)  
M.Th., 1:30-3:30; A-8. (Zeeveld.)
- ENG. 215. SEMINAR IN NINETEENTH-CENTURY LITERATURE. (3)  
T.F., 1:30-3:30; A-163. (Pitts.)
- ENG. 225. SEMINAR IN AMERICAN LITERATURE. (3)  
M.Th., 7:00-9:00; A-7. (Bode.)
- ENG. 237. SPECIAL STUDIES IN AMERICAN LITERATURE. (3)  
M.Th., 7:00-9:00; A-8. (Lutwack.)



## FOREIGN LANGUAGES

ENG. 399. THESIS RESEARCH. (1-6)

(Staff.)

### FOREIGN LANGUAGES

FRENCH 0. ELEMENTARY FRENCH FOR GRADUATE STUDENTS.

(Audit)

June 20-July 29. Daily, 8:00; LL-12.

(Demaitre.)

FRENCH 1-2. ELEMENTARY FRENCH. (3, 3)

French 1, June 20-July 15, French 2, July 18-Aug. 12. Registration for both French 1 and French 2 on June 21. Register for French 1 and French 2 on separate class cards. This course meets *three* times daily, 8:00 and 12:30, LL-13 with an additional 50 minute drill daily. Students enrolled in French 1 and/or French 2 may not take other courses in the summer session.

(Gray.)

FRENCH 6. INTERMEDIATE FRENCH. (3)

June 20-July 29. Daily, 9:30, LL-1.

(Cap.)

FRENCH 7. INTERMEDIATE FRENCH. (3)

June 20-July 29. Daily, 9-30, LL-2.

(Alter.)

FRENCH 142. FRENCH LITERATURE OF THE TWENTIETH CENTURY. (3)

June 20-July 29. Daily, 11:00, LL-201.

(Alter.)

GERMAN 0. ELEMENTARY GERMAN FOR GRADUATE STUDENTS.

(Audit)

June 20-July 29, Section 1, Daily 9:30, LL-12.

(Hering.)

GERMAN 1-2. ELEMENTARY GERMAN. (3, 3)

German 1, June 20-July 15, German 2, July 18-Aug. 12. Registration for both German 1 and German 2 on June 21. Register for German 1 and German 2 on separate class cards. This course meets three times daily, 8:00 and 12:30, LL-229. with an additional 50 minute drill daily to be scheduled at first class meeting. Students enrolled in German 1 and/or German 2 may not take other courses in the summer session.

(Miller.)

GERMAN 6. INTERMEDIATE LITERARY GERMAN. (3)

June 20-July 29. Daily, 11:00-LL-13.

(Hering.)

GERMAN 7. INTERMEDIATE LITERARY GERMAN. (3)

June 20-July 29. Daily, 11:00-LL-1.

(Kemner.)

GERMAN 9. CONVERSATION AND COMPOSITION. (3)

June 20-July 29. Daily, 8:00, LL-1.

(Kemner.)

SPANISH 1-2. ELEMENTARY SPANISH. (3, 3)

Spanish 1, June 20-July 15, Spanish 2, July 18-Aug. 12. Registration for both Spanish 1 and Spanish 2 on June 21. Register for Spanish 1 and Spanish 2 on separate class cards. This course meets three times daily, 8:00 and 12:30,

## FOREIGN LANGUAGES

LL-301, with an additional 50 minutes drill daily to be scheduled at first class meeting. Students enrolled in Spanish 1 and/or Spanish 2 may not take other courses in the summer session. (Herdoiza.)

### SPANISH 6. INTERMEDIATE SPANISH. (3)

June 20-July 29. Daily, 9:30-LL-3. (Moncayo.)

### SPANISH 7. INTERMEDIATE SPANISH. (3)

June 20-July 29. Daily, 9:30, LL-4. (Salgado.)

### SPANISH 112. PROSE OF THE 16TH AND 17TH CENTURIES. (3)

June 20-July 29. Daily 1:00-2:45, LL-204. (Goodwyn.)

### CHINESE 1-2. ELEMENTARY CHINESE. (3, 3)

Chinese 1, June 20-July 15, Chinese 2, July 18-Aug. 12. Registration for both Chinese 1 and Chinese 2 on June 20. Register for Chinese 1 and Chinese 2 on separate class cards. This course meets *three* times daily, 8:00 and 12:30-LL-106 with an additional 50 minute drill daily to be scheduled at first class meeting. Students enrolled in Chinese 1 and/or Chinese 2 may not take other courses in the summer session. (Chen.)

### RUSSIAN 1-2. ELEMENTARY RUSSIAN. (3, 3)

Russian 1, June 20-July 15, Russian 2, July 18-Aug. 12. Registration for both Russian 1 and Russian 2 on June 21. Register for both Russian 1 and Russian 2 on separate class cards. This course meets *three* times daily, 8:00 and 12:30, II-105, with an additional 50 minutes daily, to be scheduled at first class meeting. Students enrolled in Russian 1 and Russian 2 may not take other courses in the summer session. (Hitchcock.)

## HISTORY

### H. 21. HISTORY OF THE UNITED STATES TO 1865. (3)

A survey of the history of the United States from colonial times to the end of the Civil War. Emphasis on the establishment and development of American Institutions.

Section 1— 8:00; A-110 (Farrell.)

Section 2— 9:30; A-163 (Farrell.)

Section 3— 9:30; A-166 (Staff.)

Section 4—11:00; A-110 (Staff.)

Section 5—11:00; A-159 (Staff.)

### H. 22. HISTORY OF THE UNITED STATES SINCE 1865. (3)

A survey of economic, social, intellectual, and political developments since the Civil War. Emphasis on the rise of industry and the emergence of the United States as a world power.

Section 1— 8:00; A-159 (Fitch.)

Section 2— 8:00; A-163 (Staff.)

Section 3— 9:30; A-12 (Fitch.)

Section 4—11:00; A-161 (Staff.)

### H. 23. SOCIAL AND CULTURAL HISTORY OF EARLY AMERICA. (3)

9:30; A-133—A study of the social and cultural history of the United States as a predominantly agricultural society. Examination of how the social milieu shapes the cultural development of the nation and its institutions. (Staff.)

- H. 24. SOCIAL AND CULTURAL HISTORY OF MODERN AMERICA. (3)  
 11:00; A-163—A study of the social and cultural history of the United States as a society in transition. Examination of the social and cultural changes that accompanied industrial and scientific development. (Staff.)
- H. 41. WESTERN CIVILIZATION. (3)  
 This course is designed to give the student an appreciation of the civilization in which he lives in its broadest setting. The study begins with the collapse of classical civilization and comes to the seventeenth century.  
 Section 1— 8:00; A-164 (Staff.)  
 Section 2— 9:30; A-207 (Staff.)  
 Section 3—11:00; A-164 (Staff.)
- H. 42. WESTERN CIVILIZATION. (3)  
 This course is designed to give the student an appreciation of the civilization in which he lives in its broadest setting. The study begins with the seventeenth century and comes to the present.  
 Section 1— 8:00; A-12 (Staff.)  
 Section 2— 9:30; A-228 (Staff.)  
 Section 3—11:00; A-12 (Staff.)
- H. 62. FAR EASTERN CIVILIZATION. (3)  
 8:00; A-133. This course seeks to give the student an understanding of a great civilization radically different from our own and an appreciation of the complex problem of the Far East and of American policy there. The approach is interdisciplinary with an historical framework. (Folsom.)
- H. 101. AMERICAN COLONIAL HISTORY. (3)  
 9:30; A-209. The settlement and development of colonial America to the middle of the eighteenth century. (Staff.)
- H. 119. RECENT AMERICAN HISTORY. (3)  
 8:00; A-166. Party politics, domestic issues, foreign relations of the United States since 1929. (Staff.)
- H. 124. RECONSTRUCTION AND THE NEW NATION, 1865-1896. (3)  
 9:30; A-231. Prerequisite, H. 21, 22, or the equivalent. Problems of construction in both South and North. Emergence of big business and industrial combinations. Problems of the farmer and laborer. (Staff.)
- H.127. DIPLOMATIC HISTORY OF THE UNITED STATES. (3)  
 11:00. A-133. A historical study of the diplomatic negotiations and foreign relations of the United States, from the Revolution to the present. (Staff.)
- H. 158. THE OLD REGIME AND THE FRENCH REVOLUTION, 1748-1815. (3)  
 9:30; A-8. Europe in the era of the French Revolution. (Staff.)
- H.166. TUDOR-STUART ENGLAND. (3)  
 11:00; A-166. An examination of the political, religious and social forces in English life from 1485-1714 with special emphasis on Tudor government, the English Reformation, the Elizabethan era, Puritanism, and the English revolution. (Staff.)

## HISTORY

### H. 172. EUROPE IN THE WORLD SETTING OF THE TWENTIETH CENTURY. (3)

9:30; A-301. Prerequisites, H. 41, 42, or H. 53, 54. A study of political, economic, and cultural developments in twentieth century Europe with special emphasis on the factors involved in the two World Wars and their global impacts and significance. (Staff.)

### H. 189. HISTORY OF JAPAN. (3)

9:30; A-302. A history of Japan from earliest to modern times. Emphasis is placed on the evolution of institutions and thought. (Folsom.)

### H. 300. HISTORIOGRAPHY: TECHNIQUES OF HISTORICAL RESEARCH AND WRITING. (3)

Section 1—Arranged (Staff.)

Section 2—Arranged (Staff.)

Section 3—Arranged (Staff.)

### H. 301. READINGS IN COLONIAL AMERICAN HISTORY. (3)

Arranged (Staff.)

### H. 318. SEMINAR IN RECONSTRUCTION AMERICA. (3)

Arranged (Staff.)

### H. 327. READINGS IN THE HISTORY OF AMERICAN FOREIGN POLICY. (3)

Arranged (Staff.)

### H. 366. SEMINAR IN TUDOR AND STUART ENGLAND. (3)

Arranged (Staff.)

### H. 372. SEMINAR IN THE HISTORY OF WORLD WAR II. (3)

Arranged (Staff.)

### H. 399. THESIS RESEARCH. (1-6)

Arranged. Credit according to work assigned. (Staff.)

## MATHEMATICS

### MATH. 3. FUNDAMENTALS OF MATHEMATICS. (4)

This course, open to all students, is designed to provide an introduction to mathematical thinking and to develop an appreciation of the role of mathematics in human culture.

Section 1—Daily, 8:00; Y-26 (Staff.)

Section 2—Daily, 9:30; J-18 (Staff.)

Section 3—Daily, 9:30; J-104 (Staff.)

### MATH. 10. INTRODUCTION TO MATHEMATICS. (3)

Prerequisite, 2½ years of college preparatory mathematics or Math. 1. Open to students not majoring in mathematics or the physical and engineering sciences. Logic, sets, counting, probability; elementary algebraic and transcendental functions and their geometric representation; systems of linear equations, vectors, matrices.

Section 1—M.T.Th.F., 8:00; J-6 (Staff.)

- Section 2—M.T.Th.F., 9:30; J-6 (Staff.)
- Section 3—M.T.Th.F., 9:30; J-134 (Staff.)
- Section 4—M.T.Th.F., 11:00; Y-2 (Staff.)
- Section 5—M.T.Th.F., 11:00; J-6 (Staff.)

**MATH. 11. INTRODUCTION TO MATHEMATICS. (3)**

- Prerequisite, Math. 10. Math 11 is a continuation of Math. 10. (Staff.)
- Section 1—M.T.Th.F., 8:00; J-134 (Staff.)
- Section 2—M.T.Th.F., 8:00; J-18 (Staff.)
- Section 3—M.T.Th.F., 9:30; J-131 (Staff.)
- Section 4—M.T.Th.F., 11:00; J-131 (Staff.)
- Section 5—M.T.Th.F., 11:00; J-14 (Staff.)

**MATH. 18. INTRODUCTORY ANALYSIS. (3)**

- Prerequisite, 2½ years of college preparatory mathematics or Math. 1. An introductory course for students not qualified to start Math. 19. Real numbers, functions, coordinate systems. Trigonometric functions. Plane analytic geometry. (Staff.)
- Section 1—M.T.Th.F., 8:00; Y-19 (Staff.)
- Section 2—M.T.Th.F., 11:00; Y-5 (Staff.)

**MATH. 19. ELEMENTARY ANALYSIS. (4)**

- Prerequisite, 3½ years of college preparatory mathematics or Math. 18. Vectors and analytic geometry in three dimensions. Review of real numbers, coordinate systems, trigonometric functions, determinants. (Staff.)
- Section 1—Daily, 8:00; J-14 (Staff.)
- Section 2—Daily, 8:00; Y-14 (Staff.)
- Section 3—Daily, 8:00; Y-18 (Staff.)

**MATH. 20. CALCULUS I. (4)**

- Prerequisite, Math. 19 or equivalent. (Staff.)
- Section 1—Daily, 9:30; Y-27 (Staff.)
- Section 2—Daily, 9:30; Y-26 (Staff.)
- Section 3—Daily, 9:30; Y-19 (Staff.)

**MATH. 21. CALCULUS II. (4)**

- Prerequisite, Math. 20 or equivalent. (Staff.)
- Section 1—Daily, 11:00; Y-14 (Staff.)
- Section 2—Daily, 11:00; Y-17 (Staff.)
- Section 3—Daily, 11:00; Y-18 (Staff.)

**MATH. 22. CALCULUS III. (4)**

- Prerequisite, Math. 21 or equivalent. Basic concepts of linear algebra, matrices, and determinants. Calculus of functions of vectors. Implicit function theorem. Surface integrals. Classical theorems of Green, Gauss, and Stokes. (Staff.)
- Section 1—Daily, 9:30; Y-18 (Staff.)
- Section 2—Daily, 9:30; Y-17 (Staff.)

**MATH. 30. ELEMENTS OF MATHEMATICS. (4)**

- Prerequisite, high school elementary algebra. Required course in mathematics for elementary education majors and open only to students in this field. Topics from algebra and number theory are presented to provide a proper mathematical insight into arithmetic for the prospective elementary school teacher. (Staff.)
- Section 1—Daily, 8:00; Y-5 (Staff.)
- Section 2—Daily, 9:30; Y-14 (Staff.)

## MATHEMATICS

### MATH. 31. ELEMENTS OF GEOMETRY. (4)

Prerequisite, Math. 30 or equivalent. Required course in mathematics for elementary education majors and open only to students in this field. Topics included are: review of the structure of a mathematical system, algebra of sets, non-metric geometry, logic, congruence, measurement, similarity, graphs on a plane, a miniature geometry, spherical geometry. Daily, 11:00; Y-19. (Staff.)

### MATH. 66. (64). DIFFERENTIAL EQUATIONS FOR SCIENTISTS AND ENGINEERS. (3)

Prerequisite, Math. 21. M.T.Th. F., 9:30; Y-5 (Staff.)

### MATH. 100. VECTORS AND MATRICES. (3)

Prerequisite, Math. 21 or Math. 15.

M.T.Th.F., 8:00; Y-2 (Staff.)

### MATH. 103. INTRODUCTION TO ABSTRACT ALGEBRA. (3)

Prerequisite, Math. 22 or equivalent. Integers, groups, rings, integral domains, fields. M.T.Th.F., 8:00; Y-27 (Staff.)

### MATH. 128. EUCLIDEAN GEOMETRY. (3)

Prerequisite, Math. 22 or equivalent. Recommended for students in the College of Education. Axiomatic method, models, properties of axioms: proofs of some basic theorems from the axioms: modern geometry of the triangle, circle, and sphere. M.T.Th.F., 11:00; Y-16. (Staff.)

### MATH. 130. INTRODUCTION TO PROBABILITY THEORY I. (3)

Prerequisite, Math. 110, or equivalent. Sample space, events, probability and its basic properties. Independence and conditioning, random variables, distribution functions (continuous and discrete): typical distributions, expectations, moments, generating functions: transformations of random variables, limit theorems. M.T.Th.F., 11:00; Y-28.

### MATH. 146. FUNDAMENTAL CONCEPTS OF MATHEMATICS. (3)

Prerequisite, Math. 22 or consent of instructor. Sets, relations, mappings. Construction of the real number system starting with Peano postulates: algebraic structures associated with the construction: Archimedean order, sequential completeness and equivalent properties of ordered fields. Finite and infinite sets, denumerable and non-denumerable sets. M.T.Th.F., 9:30; Y-2. (Staff.)

### MATH. 163. ANALYSIS FOR SCIENTISTS AND ENGINEERS II. (3)

Prerequisites, Math. 162 or 22 or consent of instructor. Not open to students with credit for Math. 116 or Math. 113. The complex field. Infinite processes for real and complex numbers. Calculus of complex functions. Analytic functions and analytic continuation. Theory of residues and application to evaluation of integrals. Conformal mapping. (This course cannot be counted toward a major in mathematics.) M.T.Th.F., 8:00; Y-4. (Staff.)

### MATH. 181. INTRODUCTION TO NUMBER THEORY. (3)

Prerequisite, high school elementary algebra. Topics from algebra and number theory are presented to provide mathematical insight into arithmetic for the elementary school teacher. M.T.Th. F., 9:30; Y-4. (Staff.)

## MATHEMATICS

### MATH. 182. INTRODUCTION TO ALGEBRA. (3)

Open only to participants in the N.S.F. Institute in Mathematics for Junior High School Teachers in Mathematics.  
June 20-July 29, Daily; 8:00-C-134. (Kirwan.)

### MATH. 183. INTRODUCTION TO GEOMETRY. (3)

Prerequisite, one year high school mathematics. Topics from geometry and logic are presented to provide mathematical insight into arithmetic for the elementary school teacher. M.T.Th.F., 11:00; Y-27. (Staff.)

### MATH. 189. NATIONAL SCIENCE FOUNDATION SUMMER INSTITUTE FOR TEACHERS OF SCIENCE AND MATHEMATICS SEMINAR. (3)

Open only to participants in the N.S.F. Institute in Mathematics for Junior High School Teachers in Mathematics.  
June 20-July 29, Daily; 1:00; C-134. (Henkelman.)

### MATH. 190. HONORS SEMINARS. (2)

Prerequisite permission of Departmental Honors Committee. (Staff.)

### MATH. 191. SELECTED TOPICS IN MATHEMATICS.

Prerequisite, Consent of instructor. Arranged. Credit according to work assigned. (Staff.)

### MATH. 271. SELECTED TOPICS IN ALGEBRA. (3)

Arranged. Prerequisite, consent of instructor. (Staff.)

### MATH. 272. SELECTED TOPICS IN ANALYSIS. (3)

Arranged. Prerequisite, consent of instructor. (Staff.)

### MATH. 273. SELECTED TOPICS IN GEOMETRY AND TOPOLOGY. (3)

Arranged. Prerequisite, consent of instructor. (Staff.)

### MATH. 274. SELECTED TOPICS IN APPLIED MATHEMATICS. (3)

Arranged. Prerequisite, consent of instructor. (Staff.)

### MATH. 399. RESEARCH.

Arranged. Credits according to work assigned. (Staff.)

## MICROBIOLOGY

### MICROB. 1. GENERAL MICROBIOLOGY. (4)

Four lectures and four two-hour laboratory periods a week. Lecture, 8:00; T-5. Laboratory, 9:00, 10:00. M.T.Th.F.; T-210. Laboratory fee, \$15.00. The physiology, culture, and differentiation of bacteria. Fundamental principles of Microbiology in relation to man and his environment. (Staff.)

### MICROB. 181. MICROBIOLOGICAL PROBLEMS. (3)

Arranged. Six two-hour laboratory periods a week. Prerequisite, 16 credits in Microbiology. Registration only upon consent of the instructor. Laboratory fee, \$15.00. (Faber.)

### MICROB. 399. RESEARCH.

Arranged. Credits according to work assigned. Laboratory fee, \$15.00. (Staff.)

## MUSIC

### MUSIC \*

#### MUSIC 8. THEORY OF MUSIC. (3)

June 20-July 29. M.W.F., 8:00 and Daily, 9:30; NN-301. Prerequisite, Music 7. A fundamental course in the elements of music. Study of rhythms, scales, chordal structures, and tonalities through ear training, sight singing, and keyboard drill. (Payerle.)

#### MUSIC 16. FUNDAMENTALS FOR THE CLASSROOM TEACHER. (3)

June 20-July 29. Daily, 8:00; NN-359. The fundamentals of music theory and practice, related to the needs of the classroom and kindergarten teacher, and organized in accord with the six-area concept of music learning. (Cosentino.)

#### MUSIC 20. SURVEY OF MUSIC LITERATURE. (3)

June 20-July 29. Daily, 11:00; NN-301. Open to all students except music and music-education majors, and may be taken to satisfy the fine arts option in the general education program. A study of musical principles and an introduction to musical repertoires. (Payerle.)

#### MUSIC 165. KEYBOARD MUSIC. (3)

June 20-July 29. Daily, 9:30; NN-210. Prerequisites, Music 120, 121, or the equivalent. The history and literature of keyboard music. In the 1966 Summer Session the piano sonata in the nineteenth century will be studied. (Bernstein.)

#### MUSIC 167. SYMPHONIC MUSIC. (3)

June 20-July 29. Daily, 12:30; NN-208. Prerequisites, Music 120, 121, or the equivalents. The study of orchestral music from the Baroque period to the present. The concerto, symphony, overture, and other forms are examined. (Heim.)

#### MUSIC 200. ADVANCED STUDIES IN THE HISTORY OF MUSIC. (3)

June 20—July 29. Daily, 8:00; NN-210. Prerequisites, Music 120, 121, and graduate standing. A critical study of one style period will be undertaken. In the 1966 Summer Session, vocal music of the fifteenth and sixteenth centuries will be studied. (Bernstein.)

#### MUSIC 201. SEMINAR IN MUSICOLOGY: BEETHOVEN. (3)

June 20-July 29. Daily, 12:30; NN-210. Prerequisites, Music 120, 121, and graduate standing. The subject of music criticism will be studied. (McCorkle.)

#### MUSIC 211. SPECIAL STUDIES IN MUSIC. (3)

June 20-July 29. Daily, 9:30; NN-359. Prerequisites, Music 120, 121, and graduate standing. The subject of music criticism will be studied. (McCorkle.)

#### APPLIED MUSIC.

Arranged. A student taking applied music for the first time at this University should register for Music 999. He will receive the proper classification at the end of the summer session.

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\*(for Music, Education, see page 62.)



## MUSIC

Every student taking an applied music course should, in addition to registering for the proper course number, indicate the instrument chosen by adding a section number as follows:

Sec. 1, Piano	Sec. 9, Clarinet	Sec. 12, Trumpet
Sec. 2, Voice	Sec. 11, Horn	Sec. 13, Trombone
Sec. 7, Flute		Sec. 16, Organ

### MUSIC 12, 13, 52, 53, 112, 113, 152, 153, 212, 213. APPLIED MUSIC. (2 each course)

Hours to be arranged with instructor on first day of classes, NN-201. Prerequisite, the next lower course in the same instrument. Two one-hour lessons and a minimum of twelve practice hours per week for eight weeks. Supplementary fee of \$40.00 for each course. (Staff.)

## PHILOSOPHY

### PHIL. 1. INTRODUCTION TO PHILOSOPHY. (3)

M.T.Th.F., 9:30; T-10. An introduction to some of the main problems of philosophy, and to some of the main ways of dealing with these problems. (Kress.)

### PHIL. 41. ELEMENTARY LOGIC AND SEMANTICS. (3)

M.T.Th.F., 8:00; T-10. An introductory study of logic and language, intended to help the student increase his ability to employ language with understanding and to reason correctly. Topics treated include: the uses and abuses of language, techniques for making sound inferences, and the logic of science. (Varnedoe.)

### PHIL. 45. ETHICS. (3)

M.T.Th.F., 11:00; T-10. An introduction to moral philosophy, including a critical examination of some important classic and contemporary systems of ethics, such as those of Aristotle, Kant, Mill, and Dewey. (Roelofs.)

### PHIL. 102. MODERN PHILOSOPHY. (3)

M.T.Th.F., 9:30; T-103. Prerequisites, Phil. 1 and either one additional course in philosophy or senior standing. A history of philosophical thought in the West during the 16th, 17th, and 18th centuries. The chief figures discussed: Bacon, Galileo, Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant. (Celarier.)

### PHIL. 292. SELECTED PROBLEMS IN PHILOSOPHY. (1-3)

Arranged. Prerequisite, consent of the instructor. Credit according to work assigned. (Staff.)

### PHIL. 399. RESEARCH IN PHILOSOPHY. (1-3)

Arranged. Credit according to work assigned. (Staff.)

## PHYSICS AND ASTRONOMY

### ASTR. 1. INTRODUCTION TO ASTRONOMY. (3)

June 20-July 29. Lecture, M.T.W., 7:30-9:00 P.M.; Laboratory, Th. 7:30-9:30 P.M.; Z-140. An elementary course in descriptive astronomy. This course is self-contained; it is not required that it be followed by Astronomy 2. Lecture demonstration fee, \$3 per semester. (Upgren.)

## PHYSICS AND ASTRONOMY

### ASTR. 150. SPECIAL PROBLEMS IN ASTRONOMY.

Arranged. Prerequisite, major in physics or astronomy and/or consent of advisor. Research or special study. Credit according to work accomplished. (Staff.)

### ASTR. 190. HONORS SEMINAR.

Arranged. Enrollment is limited to students admitted to the Honors Programs in Astronomy. Credit according to work assigned. (Staff.)

### ASTR. 399. RESEARCH. (1-6)

Arranged. Laboratory fee, \$10 per credit hour. Prerequisite, an approved application for admission to candidacy or special permission of the Department of Physics and Astronomy. Credit according to work assigned. (Staff.)

### PHYS. 10. FUNDAMENTALS OF PHYSICS. (4)

Daily, 8:00; C-132. Lab. Sections T.Th. 10-12 or MW 2-4, Z-362, six lecture sessions and two recitation sessions plus 4 hours of laboratory per week. Prerequisite, entrance credit in Trigonometry or Math. 11 or concurrent enrollment in Math. 18, or equivalent preparation. Demonstration and laboratory fee, \$10. A course to general physics treating the fields of mechanics, heat and sound. (Staff.)

### PHYS. 150. SPECIAL PROBLEMS IN PHYSICS. SECTION 1.

Arranged. Research or special study. Laboratory fee, \$10.00 per credit hour when appropriate. Prerequisite, major in physics and consent of Department Head. Credit according to work assigned. (Staff.)

### PHYS. 190. HONORS SEMINAR.

Arranged. Credit according to work assigned. (Staff.)

### PHYS. 230. SEMINAR. (1)

Arranged. One two-hour class per week. (Staff.)

### PHYS. 248. SPECIAL TOPICS IN MODERN PHYSICS. (2)

Arranged. Two two-hour lectures per week. (Staff.)

### PHYS. 399. RESEARCH. (1-6)

Credit according to work accomplished. Laboratory fee, \$10.00 per credit hour. Prerequisite, approved application for admission to candidacy or special permission of the Department Chairman. Thesis research conducted under approved supervision. (Staff.)

## PSYCHOLOGY

### PSYCH. 1. INTRODUCTION TO PSYCHOLOGY. (3)

M.T.Th.F. Section 1—8:00; A-52. Section 2—9:30; A-52. 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.

(Waldrop, Johnson.)

**PSYCH. 5. PERSONALITY AND ADJUSTMENT. (3)**

M.T.Th.F. 9:30; M-105. Prerequisite, Psych. 1—Introduction to the psychology of human personality and adjustment, with a view toward increasing self-understanding and developing an appreciation for the mental health movement and each individual's stake in it. (Golann.)

**PSYCH. 90. STATISTICAL METHODS IN PSYCHOLOGY. (3)**

M.T.Th.F. 8:00; A-130. Prerequisite, Psych. 1 and Math. 1, or 5 or 10 or equivalent. A basic introduction to quantitative methods used in psychological research. (Higgs.)

**PSYCH. 110. EDUCATIONAL PSYCHOLOGY. (3)**

M.T.Th.F. Section 1—9:30; T-108. Section 2—11:00; T-202. Prerequisite, Psych. 1. Resêarches on fundamental psychological problems encountered in education. Measurement and significance of individual differences; learning, motivation, transfer of training, and the educational implications of theories of intelligence. (Higgs, Johnson.)

**PSYCH. 131. ABNORMAL PSYCHOLOGY. (3)**

M.T.Th.F. 8:00; M-105. Prerequisite, two courses in Psychology. The nature, diagnosis, etiology and treatment of mental disorders. (Daston.)

**PSYCH. 150. TESTS AND MEASUREMENTS. (3)**

M.T.Th.F. 11:00; M-105; with additional laboratory sessions. M.Th., 1:30-3:30. Prerequisite, Psych. 90. Laboratory fee, \$4.00. Critical survey of measuring devices used in counseling, educational and industrial practice, with an emphasis on the theory, development and standardization. Laboratory work will incorporate training in methodology of test development together with appropriate practice in the use of selected tests. (Waldrop.)

**PSYCH. 194. INDEPENDENT STUDY IN PSYCHOLOGY. (1-3)**

Times arranged. Prerequisites, advanced standing and written consent of individual faculty supervisor. Integrated reading matter under direction leading to the preparation of an adequately documented report on a special topic. (Staff.)

**PSYCH. 195. MINOR PROBLEMS IN PSYCHOLOGY. (1-3)**

Times arranged. Prerequisites, advanced standing and written consent of individual faculty supervisor. An individualized course designed to allow the student to pursue a specialized research project under supervision. (Staff.)

**PSYCH. 225. MEASUREMENT AND EVALUATION. (4)**

M.T.Th.F. 11:00; EE-8; with additional laboratory sessions T.F., 1:30-3:30. Prerequisite, Psych 150 and graduate standing. Laboratory fee, \$6.00. Theory and logic of the methodology of evaluation. Laboratory practice in methods of individual intelligence testing. Survey of available testing instruments and techniques. (Golann.)

**PSYCH. 261. MODIFICATION OF HUMAN BEHAVIORS RESEARCH METHODS AND PRACTICE. (3)**

M.W. 7:00-9:30 P.M. and other hours arranged; M-105. Prerequisite, consent of instructor. The experimental and applied methods available for the induction of behavior change. (Daston.)

## SOCIOLOGY

### PSYCH. 288. SPECIAL RESEARCH PROBLEMS. (1-4)

Times arranged. Requires graduate standing and consent of individual faculty supervisor. Supervised research on problems selected from the areas of experimental, industrial, social, quantitative, or mental health psychology. (Staff.)

### PSYCH. 399. RESEARCH FOR THESIS. (1-6)

Times arranged. Requires consent of individual faculty supervisor. Credit according work assigned. (Staff.)

## SOCIOLOGY

### SOC. 1. INTRODUCTION TO SOCIOLOGY. (3)

Introduction to the Study of Sociology.

Sec. 1—M.T.Th.F. 8:00; A324.

(Staff.)

Sec. 2—M.T.Th.F., 9:30; A321.

(Staff.)

Sec. 3—M.T.Th.F., 11:00; A324.

(Staff.)

### SOC. 2. PRINCIPLES OF SOCIOLOGY. (3)

M.T.Th.F., 9:30; A320. Prerequisite, Soc. 1. The basic forms of human association and interaction. (Staff.)

### SOC. 51. SOCIAL PATHOLOGY. (3)

Prerequisite, sophomore standing. Personal-social disorganization and maladjustment; physical and mental handicaps; economic inadequacies; programs of treatment and control. (Staff.)

### SOC. 52. CRIMINOLOGY. (3)

M.T.Th.F. 8:00; A321. Prerequisite, Soc. 1. Criminal behavior and the methods of its study. (Staff.)

### SOC. 95. INTRODUCTORY STATISTICS FOR SOCIOLOGY. (3)

M.T.Th.F., 11:00; A-209. Prerequisite, Math 3 or 10. Measures of central tendency and dispersion, use of statistical inference in simple testing of null hypotheses, chi square, and labor saving computational devices for correlation. Majors in sociology should take this course in their junior year. (Staff.)

### SOC. 112. RURAL-URBAN RELATIONS. (3)

M.T.Th.F. 11:00; A320. Prerequisite Soc. 1. The ecology of population and the forces making for change in rural and urban life; migration, decentralization and the regionalism as methods of studying individual and national issues. Applied field problems. (Staff.)

### SOC. 114. THE CITY. (3)

1:00; A228. The rise of urban civilization and metropolitan regions; ecological process and structure; the city as a center of dominance; social problems, control and planning. (Staff.)

## SOCIOLOGY, ANTHROPOLOGY

### SOC. 131. INTRODUCTION TO SOCIAL SERVICE. (3)

M.T.Th.F., 11:00; A321. Prerequisite, Soc. 1. General survey of the field of social-welfare activities. (Di Bella.)

### SOC. 153. JUVENILE DELINQUENCY. (3)

M.T.Th.F., 9:30; A-324. Prerequisite, Soc. 1. Juvenile delinquency in relation to the general problem of crime. (Staff.)

### SOC. 154. CRIME AND DELINQUENCY PREVENTION. (3)

M.T.Th.F., 11:00; A207. Prerequisite, Soc. 52 or Soc. 153 or consent of instructor. Methods and programs in prevention of crime and delinquency. (Staff.)

### SOC. 164. THE FAMILY AND SOCIETY. (3)

M.T.Th.F., 12:30; A159. Prerequisite, Soc. 1. The family as a social institution. (Staff.)

### SOC. 171. FAMILY AND CHILD WELFARE. (3)

M.T.Th.F., 12:30; A-159. Programs of family and child welfare agencies; social services to families and children; child placement; foster families. (DiBella.)

### SOC. 186. SOCIOLOGICAL THEORY. (3)

M.T.Th.F., 9:30; A7. Prerequisite, Soc. 1. Development of the science of sociology. (Staff.)

### SOC. 291. SPECIAL SOCIAL PROBLEMS.

Arranged. Credit according to work assigned. (Staff.)

### SOC. 399. THESIS RESEARCH.

Arranged. Credit according to work assigned. (Staff.)

## ANTHROPOLOGY

Anthropology 1 or its Anthropology equivalent is prerequisite to all other courses in Anthropology.

### ANTH. 1. INTRODUCTION TO ANTHROPOLOGY: ARCHEOLOGY AND PHYSICAL ANTHROPOLOGY. (3)

M.T.Th.F., 9:30; T206. May be taken for credit in the General Studies Program. General patterns of the development of human culture; the biological and morphological aspects of man viewed in his cultural setting. (Staff.)

### ANTH. 2. INTRODUCTION TO ANTHROPOLOGY: CULTURAL ANTHROPOLOGY AND LINGUISTICS. (3)

M.T.Th.F., 8:00; A209. Social and cultural principles as exemplified in ethnographic descriptions. The study of language within the context of Anthropology. (Staff.)

### ANTH. 105. CULTURAL ANTHROPOLOGY (3)

M.T.Th.F., 12:30; A106. A survey of the simpler cultures of the world, with attention to historical processes and the application of anthropological theory to the modern situation. (Staff.)

### ANTH. 125. CULTURAL HISTORY OF THE NEGRO. (3)

M.T.Th.F., 11:00; A106. The cultures of Africa south of the Sahara and the cultural adjustments of the Negro in North and South America. (Staff.)

## SPEECH

### SPEECH

#### SPEECH 1. PUBLIC SPEAKING. (3)

Prerequisite for advanced speech courses. The preparation and delivery of short original speeches; Outside readings; reports; etc. It is recommended that this course be taken during the freshman year. Laboratory fee \$1.00.

- Section 1—June 20-July 29, Daily, 8:00; NN-9A (McCain.)  
Section 2—M.T.Th.F., 8:00; NN-9B (Frank.)  
Section 3—June 20-July 29, Daily, 9:30; NN-102 (Starcher.)  
Section 4—M.T.Th.F., 9:30; NN-22A (Wolfe.)  
Section 5—M.T.Th.F., 11:00; NN-9A (Linkow.)  
Section 6—M.T.Th.F., 11:00; NN-9B (Schwartz.)  
Section 7—M.T.Th.F., 12:30; NN-13 (Kirkley.)

#### SPEECH 3. FUNDAMENTALS OF GENERAL AMERICAN SPEECH. (3)

Training in auditory discrimination of speech sounds, rhythms and inflections of general American Speech. Analysis of the physiological bases of speech production and the phonetic elements of speech reception.

- Section 1—M.T.Th.F., 9:30; NN-22B (Waghelstein)  
Section 2—M.T.Th.F., 11:00; NN-22B (Waghelstein)

#### SPEECH 13. ORAL INTERPRETATION. (3)

M.T.Th.F., 11:00; NN-102. The oral interpretation of literature and the practical training of students in the art of reading. (Provensen.)

#### SPEECH 16. INTRODUCTION TO THE THEATRE. (3)

June 20-July 29, Daily, 9:30; NN-22 B. A. general survey of the fields of the theatre. (Pugliese.)

#### SPEECH 105. SPEECH HANDICAPPED SCHOOL CHILDREN. (3)

M.T.Th.F., 11:00; NN-13. Prerequisite, Speech 3 for undergraduates. The occurrence, identification and treatment of speech handicaps in the classroom. An introduction to Speech Pathology. (Baratz.)

#### SPEECH 106. CLINICAL PRACTICE. (1-3)

T.F., 12:30 and arranged, NN-9. Prerequisite, Speech 105. A laboratory course dealing with the various methods of correction plus actual work in the clinic. Fee \$1.00 per semester hour. (Kanstoroom.)

#### SPEECH 108. EDUCATIONAL PHONETICS. (3)

M.T.Th.F., 9:30; NN-4. This course is designed to relate phonetic science to the classroom. An extensive coverage of broad transcription of General American Speech. Students having credit for Speech 3 or any previous phonetics course are not eligible for this course. (Hendricks.)

#### SPEECH 111. SEMINAR. (3)

Arranged. Prerequisites, senior standing and consent of instructor. Speech research. (Strausbaugh.)

**SPEECH 127. CHILDREN'S DRAMATICS. (3)**

M.T.Th.F., 9:30; NN-55. Principles and methods necessary for staging children's productions on the elementary school level. Major emphasis on creative dramatics; the application of creative dramatics in the school room, and the values gained by the child in this activity. Students will conduct classes in formal and creative dramatics which will culminate in children's programs. (Meersman.)

**SPEECH 136. PRINCIPLES OF SPEECH THERAPY. (3)**

M.T.Th.F., 9:30 NN-B. Prerequisite, Speech 120. Differential diagnosis of speech and language handicaps and the application of psychological principles of learning, motivation and adjustment in the treatment of speech disorders. Laboratory fee, \$3.00. (Carter.)

**SPEECH 142. SPEECH READING AND AUDITORY TRAINING. (2)**

M.W.F., 9:30; NN-9A. Prerequisite, Speech 3. Required for students whose concentration is in speech and hearing therapy. Methods of training individuals with hearing loss to recognize, interpret and understand spoken language. Laboratory fee, \$2.00. (Baker.)

**SPEECH 201C. SPECIAL PROBLEMS SEMINAR: DELAYED SPEECH. (3)**

M.T.Th.F., 11:00; NN-4. Prerequisite, graduate standing in speech and hearing science. (Carter.)

**SPEECH 201K. SPECIAL PROBLEMS SEMINAR: MINOR RESEARCH PROBLEMS. (3)**

M.T.Th.F., 12:30; NN-9B. Prerequisites, Speech 202 and Speech 203.

(Baker.)

**SPEECH 206. DIAGNOSTIC PROCEDURES IN SPEECH PATHOLOGY. (3)**

M.T.Th.F., 9:30; NN-13. Prerequisite, 6 hours of speech pathology. A study of diagnostic tools and methods in the analysis of various types of speech disorders. (Baratz.)

**SPEECH 211. ADVANCED CLINICAL PRACTICE. (1-3)**

Arranged. Prerequisites, 12 hours of speech pathology and audiology. Supervised training in the application of clinical methods in the diagnosis and treatment of speech and hearing disorders. Laboratory fee, \$1.00 per semester hour.

(Kanstorom)

**SPEECH 214. CLINICAL AUDIOMETRY. (3)**

M.T.Th.F., 12:30; NN-22A. Prerequisites, 3 hours in audiology and consent of instructor. Testing of auditory acuity with pure tones and speech. Laboratory fee, \$3.00. (Doudna.)

**SPEECH 262. SPECIAL PROBLEMS IN GENERAL SPEECH. (3)**

M.T.Th.F., 8:00; NN-22A.

(Weaver)

**SPEECH 273. THEORIES OF THE DRAMA. (3)**

M.T.Th.F., 11:00; NN-55. Advanced study of the identification and development of dramatic form from the early Greek drama to contemporary forms; the esthetics of theatre arts; and dramatic criticism. (Meersman.)

## SPEECH, ZOOLOGY

### SPEECH 290. INDEPENDENT STUDY. (1-3)

Arranged. Prerequisite, consent of instructor. An individual course designed for intensive study or research of problems in any one of the three areas of: drama, general speech, or radio/TV. (Staff.)

### SPEECH 301. INDEPENDENT STUDY IN SPEECH AND HEARING SCIENCE. (1-6)

Arranged. Student-selected topic of investigation. A proposed topic must be approved prior to registration. In addition to a formal report, an oral presentation of the results will be required. May be repeated. Prerequisite 30 hours of graduate study in speech and hearing science. (Staff.)

### SPEECH 399. RESEARCH.

Arranged. Credit according to work assigned. (Staff.)

## ZOOLOGY

### ZOOL. 1. GENERAL ZOOLOGY. (4)

Four 80-minute lectures and two two-hour laboratories a week. Lectures M.T.Th.F., 8:00-9:20, laboratory T.Th., 9:30, 10:30. Zool. 1 and 2 satisfy the freshman pre-medical requirement in general biology. An introduction to the modern concepts of biological principles and animal life. Emphasis will be placed upon the functional aspects of living systems with a survey of the physical and chemical bases of all life processes. Laboratory fee, \$12.00.

(Kaufman.)

### ZOOL. 55S. DEVELOPMENT OF THE HUMAN BODY. (2)

Four one-hour lectures a week, M.T.Th.F., 11:00. A study of the main factors affecting the growth and development of the child with special emphasis on normal development. (Mozden)

### ZOOL. 120. VERTEBRATE EMBRYOLOGY. (4)

Four one-hour lectures and four three-hour laboratory periods a week. Lectures, M.T.Th.F., 11:00; laboratory M.T.Th.F. 8,9,10, R-200. Prerequisite, one year of zoology. Principles of developmental dynamics including organization, differentiation, morphogenesis and developmental physiology. Laboratory fee, \$12.00. (Ramm.)

### ZOOL. 128. ZOOGEOGRAPHY. (3)

Lectures M.T.Th.F., 8:00-9:20. Prerequisites, Zool. 1, 2, and 5 or equivalent. Principles governing the geographical distribution of animals with particular emphasis on vertebrates. (Potter.)

### ZOOL. 150. SPECIAL PROBLEMS IN ZOOLOGY. (1 or 2)

Arranged. Prerequisite, major in zoology or biological sciences, a minimum of 3.0 cumulative average in the biological sciences, and consent of instructor. Research or integrated reading in zoology. A student may register several times and receive up to 8 semester hours of credit. Laboratory fee, \$12.00. (Staff.)



## BUSINESS ADMINISTRATION

### ZOOL. 152H. HONORS INDEPENDENT STUDY. (1-4)

Arranged. Prerequisites, participation in honors program. Study of classical material by way of guided independent study and laboratory experiments. Repeatable to a total of 12 hours credit. Laboratory fee, \$12.00. (Staff.)

### ZOOL. 153H. HONORS RESEARCH. (1-2)

Arranged. Prerequisite, participation in honors program. A laboratory research problem; required each semester during honors participation and culminating in an honors thesis. Repeatable to a total of 8 hours credit. Laboratory fee, \$12.00. (Staff.)

### ZOOL. 208. SPECIAL PROBLEMS IN ZOOLOGY.

Credit hours, and topics to be arranged. Laboratory fee, \$12.00. (Staff.)

### ZOOL. 399. RESEARCH.

Research on thesis project only. Laboratory fee, \$12.00. Credit according to work assigned. (Staff.)

## BUSINESS AND PUBLIC ADMINISTRATION

### *BUSINESS ADMINISTRATION*

#### B.A. 10. BUSINESS ENTERPRISE. (3)

M.T.Th.F., 11:00; Section I, Q-132. Section II, Q-131. A survey course treating the internal and functional organization of business enterprise, its organization and control. (Staff.)

#### B.A. 20. PRINCIPLES OF ACCOUNTING. (3)

M.T.Th.F. Prerequisite, sophomore standing. The fundamental principles and problems involved in accounting for proprietorship corporations and partnerships. Section I—9:30, Q-122. (Sweeney.)  
Section II—9:30, Q-108. (Staff.)

#### B.A. 21. PRINCIPLES OF ACCOUNTING. (3)

M.T.Th.F. Prerequisite, sophomore standing. The fundamental principles and problems involved in accounting for proprietorships, corporations and partnerships. Section I—8:00, Q-104. (Sweeney.)  
Section II—8:00, Q-133. (Staff.)

#### B.A. 110. INTERMEDIATE ACCOUNTING. (3)

M.T.Th.F., 8:00; Q-110. Prerequisite, B.A. 21. A comprehensive study of the theory and problems of evaluation of assets, application of funds, corporation accounts and statements, and the interpretation of accounting statements. (Staff.)

#### B.A. 111. INTERMEDIATE ACCOUNTING. (3)

M.T.Th.F., 8:00; Q-122. Prerequisite, B.A. 21. A comprehensive study of the theory and problems of valuation of assets, application of funds, corporation accounts and statements, and the interpretation of accounting statements. (Edelson.)

#### B.A. 119. BUDGETING AND CONTROL. (3)

M.T.Th.F., 9:30, T-119. Prerequisite, B.A. 21. The use of financial data in controlling an enterprise. Budgetary formulation, execution and appraisal. The use of accounting in managerial decision making. (Staff.)

## BUSINESS ADMINISTRATION

### B.A. 120. ACCOUNTING SYSTEMS. (3)

M.T.Th.F. How to make a survey of the business, select the methods to be used, design the system or procedure, and prepare the systems report or manual.

Section I—8:00, Q-123.

(Hines.)

Section II—8:00; A-207.

(Suelflow.)

### B.A. 124. ADVANCED ACCOUNTING. (3)

M.T.Th.F., Prerequisite, B.A. 111 or consent of instructor. Advanced accounting theory applied to specialized problems in partnerships, ventures, consignments, installment sales, insurance, statement of affairs, receiver's accounts, realization and liquidation reports, governmental accounting and applications of mathematics to accounting problems.

Section I—11:00, Q-122.

(Hermanson.)

Section II—11:00, Q-123.

(Edelson.)

### B.A. 130. BUSINESS STATISTICS I. (3)

M.T.Th.F. Prerequisite, junior standing. Laboratory fee, \$10.00.

An introductory course. Topics covered include statistical observation, frequency distribution, averages, measures of variability, elementary probability, sampling, distribution, problems of estimation, simple tests of hypotheses, index numbers, time series, graphical and tabular presentation.

Section I—8:00, Q-103.

(Staff.)

Section II—9:30, Q-103

(Calhoun.)

Section III—11:00, Q-103

(Anderson.)

Section IV—12:30, Q-103

(Calhoun.)

### B.A. 140. BUSINESS FINANCE. (3)

M.T.Th.F., 8:00; Section I, F-104. 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.

(Spsychalski.)

### B.A. 149. MARKETING PRINCIPLES AND ORGANIZATION. (3)

M.T.Th.F., 9:30; Q-123. An introductory course 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.

(Ashman.)

### B.A. 151. ADVERTISING. (3)

M.T.Th.F., 12:30; Q-123. Prerequisite, B.A. 149 or consent of instructor. A study of the role of advertising in the American economy; the impact of advertising on our economic and social life, the methods and techniques currently applied by advertising practitioners and modern research methods to improve the effectiveness of advertising, and the organization of the advertising business.

(Ryans.)

### B.A. 160. PERSONNEL MANAGEMENT I. (3)

M.T.Th.F., 12:30; Q-104. Deals with functional and administrative relationships between management and the labor force. It comprises a survey of the scientific selection of employees, "in-service" training, job analysis, classification and rating, motivation of employees, employee adjustment, wage incentives, employee discipline and techniques of supervision, and elimination of employment hazards.

(Carroll.)

**B.A. 163. LABOR RELATIONS. (3)**

M.T.Th.F., 9:30; Q-133. A study of the development and methods of organized groups in industry with reference to the settlement of labor disputes. An economic and legal analysis of labor union and employer association activities, arbitration, mediation and conciliation, collective bargaining, trade agreements, strikes, boycotts, lockouts, company unions, employee representation and injunctions. (Staff.)

**B.A. 168. MANAGEMENT AND ORGANIZATION THEORY. (3)**

M.T.Th.F., 11:00; Section I; Q-28. Section II, T-119. The development of management and organization theory, nature of the management process and function and its future development. The role of the manager as an organizer and director, the communication process, goals and responsibilities. (Staff.)

**B.A. 171. TRAFFIC AND PHYSICAL DISTRIBUTION MANAGEMENT. (3)**

M.T.Th.F., 8:00; G-109B. Prerequisite, junior standing. Examines the management aspects of the business firm in moving their raw materials and finished goods, through traffic, warehousing, industrial packaging, material handling, and inventory. A systematic examination of the trade-off possibilities and management alternatives to minimize cost of product flow and maximizing customer service is provided. (Hille.)

**B.A. 180. BUSINESS LAW. (3)**

M.T.Th.F., 8:00, Q-28. Legal aspects of business relationships, contracts, negotiable instruments, agency, partnerships, corporations, real and personal property and sales. (Dawson.)

**B.A. 182. ADVANCED BUSINESS LAW. (3)**

M.T.Th.F., 9:30; G-109B. Designed primarily for CPA candidates. Legal aspects of wills, insurance, torts and bankruptcy. (Dawson.)

**B.A. 189. BUSINESS AND GOVERNMENT. (3)**

M.T.Th.F., 11:00; Q-104. A study of the role of government in modern economic life. Social control of business as a remedy for the abuses of business enterprise arising from the decline of competition. Criteria of limitations on government regulation of private enterprise. (Staff.)

**B.A. 199. BUSINESS POLICIES. (3)**

M.T.Th.F., 9:30; Section I, Q-28. Section II, G-109A. Prerequisite, senior standing. A case study course in which the aim is to have the student apply both what he has learned of general management principles and their specialized functional applications of the overall management function in the enterprise. (Staff.)

**B.A. 269. APPLICATION OF BEHAVIORAL SCIENCE TO BUSINESS. (3)**

Evening meeting hours arranged. Designed to enable the student to go into greater depth in the design and implementation of behavioral science research in management. (Staff.)

**B.A. 281. PRIVATE ENTERPRISE AND PUBLIC POLICY. (3)**

Evening meeting hours arranged. Examines the executives social and ethical responsibilities to his employees, customers, and to the general public. Con-

## ECONOMICS

sideration is given to the conflicts occasioned by competitive relationships in the private sector of business and the effect of institutional restraints. The trends in public policy and their future effect upon management are examined. For comparative purposes, several examples of planned societies are considered. (Culbertson.)

### B.A. 283. MANAGEMENT POLICY FORMULATION. (3)

Evening meeting hours arranged. Affords an insight into the problems confronting top management. A complex management game supplemented by the case method; provides a simulated environment required for dynamic decision-making policy formulation. (Tosi.)

### B.A. 399. THESIS. (1-6)

Arranged. Credit according to work assigned. (Staff.)

## ECONOMICS

### ECON. 4. ECONOMIC DEVELOPMENTS. (3)

M.T.Th.F., 11:00; Q-107; no prerequisite, introduction to modern economic institutions with emphasis on development in England, Western Europe and the United States. (Staff.)

### ECON. 31. PRINCIPLES OF ECONOMICS. (3)

Sec. 1, M.T.Th.F., 8:00; Q-107. Sec. 2, M.T.Th.F., 9:30; Q-28, Prerequisite, sophomore standing. A general analysis of the functioning of the economic system, with special emphasis on national income analysis. 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. (Staff.)

### ECON. 32. PRINCIPLES OF ECONOMICS. (3)

Sec. 1, M.T.Th.F., 8:00; Q-129. Sec. 2, M.T.Th.F., 9:30; Q-107, Prerequisite, Econ. 31. A general analysis of the functioning of the economic system, with special emphasis on resource allocation. 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. (Staff.)

### ECON. 37. FUNDAMENTALS OF ECONOMICS. (3)

M.T.Th.F., 8:00; Q-130. Prerequisite, sophomore standing. Not open to students who have credit in Econ. 31 and 32. Not open to B.P.A. students. A survey of the general principles underlying economic activity. This is the basic course in economics for the American Civilization Program for students who are unable to take the more complete course provided in Econ. 31 and 32. (Staff.)

### ECON. 102. NATIONAL INCOME ANALYSIS. (3)

M.T.Th.F., 11:00, Q-123. Prerequisite, Econ. 32. Required for Econ. majors. An analysis of national income accounts and the level of national income and employment. (Staff.)

### ECON. 131. COMPARATIVE ECONOMIC SYSTEMS. (3)

M.T.Th.F., 9:30; Q-110. Prerequisite, Econ. 32 or 37. An investigation of the theory and practice of various types of economic systems. The course begins with an examination and evaluation of the capitalistic system and is followed by an analysis of alternative types of economic systems such as fascism, socialism, and communism. (Staff.)

**ECON. 132. INTERMEDIATE PRICE THEORY. (3)**

M.T.Th.F., 9:30; Q-104. Prerequisite, Econ. 32. Required for economics majors. This course is an analysis of price and distribution theory with special attention to recent developments in the theory of imperfect competition. (Staff.)

**ECON. 140. MONEY AND BANKING. (3)**

M.T.Th.F., 8:00; Q-108. Prerequisite, Econ. 32 or 37. A study of the organization, functions, and operation of our monetary, credit, and banking system; the relation of commercial banking to the Federal Reserve System; the relation of money and credit to prices; domestic and foreign exchange and the impact of public policy upon banking and credit. (Staff.)

**ECON. 148. INTERNATIONAL ECONOMICS. (3)**

M.T.Th.F., 9:30; Q-129. Prerequisite, Econ. 32 or 37. A descriptive and theoretical analysis of international trade; balance of payments accounts; the mechanism of international economic adjustment; comparative costs; economics of customs unions. (Staff.)

**ECON. 160. LABOR ECONOMICS. (3)**

M.T.Th.F., 11:00; Q-129. Prerequisite, Econ. 32 or 37. 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. (Staff.)

**ECON. 202. MACRO-ECONOMIC ANALYSIS. (3)**

Evening meeting hours arranged. Prerequisite, Econ. 132. National income accounting; determination of national income and employment especially as related to the modern theory of effective demand; consumption function; multiplier and acceleration principles; the role of money as it affects output and employment as a whole. (Staff.)

**ECON. 237. SELECTED TOPICS IN ECONOMICS. (3)**

Arranged.

**ECON. 399. THESIS. (1-6)**

Arranged. Credit according to work assigned. (Staff.)

**GEOGRAPHY****GEOG. 10. GENERAL GEOGRAPHY I. (3)**

M.T.Th.F., 9:30; Q-210. Introduction to geography as a field of study. A study of the content, philosophy, techniques, and application of geography and its significance for the understanding of world problems. (Dando.)

**GEOG. 30. PRINCIPLES OF MORPHOLOGY. (3)**

M.T.Th.F., 12:30; Q-210. A study of the physical features of the earth's surface and their geographic distribution, including subordinate land forms. Major morphological processes, the development of land forms, and the relationships between various types of land forms and land use problems. (Dando.)

## GOVERNMENT AND POLITICS

### GEOG. 41 INTRODUCTORY CLIMATOLOGY. (3)

M.T.Th.F., 8:00; Q-210. Prerequisite, Geog. 40, or permission of the instructor. Climatic elements and their controls, the classification and distribution of world climates and relevance of climatic differences to human activities. (Chaves.)

### GEOG. 100—REGIONAL GEOGRAPHY OF EASTERN ANGLO AMERICA. (3)

M.T.Th.F., 11:00, Q-210. Prerequisite, Geog. 10 or Geog. 15, or permission of the instructor. A study of the cultural and economic geography and the geographic regions of eastern United States and Canada, including an analysis of the significance of the physical basis for present-day diversification of development, and the historical geographic background. (Mika.)

### GEOG. 110. ECONOMIC AND CULTURAL GEOGRAPHY OF CARIBBEAN AMERICA. (3)

M.T.Th.F., 11:00; Q-232. An analysis of the physical framework, broad economic and historical trends, cultural patterns, and regional diversification of Mexico, Central America, the West Indies, and parts of Colombia and Venezuela. (Chaves.)

### GEOG. 120. GEOGRAPHY OF EUROPE. (3)

M.T.Th.F., 9:30; Q-209. Agricultural and industrial development of Europe and present-day problems in relation to the physical and cultural setting of the continent and its natural resources. (Van Royen.)

### GEOG. 161. MINERAL RESOURCES. (3)

Arranged. Q-209. (Van Royen.)

### GEOG. 197. URBAN GEOGRAPHY. (3)

M.T.Th.F., 8:00; Q-209. Origins of cities followed by a study of elements of site and location with reference to cities. The patterns and functions of some major world cities will be analyzed. Theories of land use differentiation within cities will be appraised. (Mika.)

## GOVERNMENT AND POLITICS

### G. & P. 1. AMERICAN GOVERNMENT. (3)

This course is designed as the basic course in government, and it or its equivalent is a prerequisite to all other courses in the Department. It is a comprehensive study of governments in the United States—national, state, and local

Section 1—M.T.Th.F. 8:00, Q-213. (Hathorn.)  
Section 2—M.T.Th.F. 9:30; Q-213. (Cox.)  
Section 3—M.T.Th.F. 11:00; Q-213. (Hathorn.)  
Section 4—M.T.Th.F. 12:30; Q-213. (Frederickson.)

### G. & P. 3. PRINCIPLES OF GOVERNMENT AND POLITICS. (3)

M.T.Th.F., 9:30; Q-132. A study of the basic principles and concepts of political science. (Soles.)

### G. & P. 40. POLITICAL IDEOLOGIES. (3)

M.T.Th.F., 8:00; Q-211. Prerequisite, G. & P. 1. A survey and analysis of the leading ideologies of the modern world, including anarchism, communism, socialism, fascism, nationalism, and democracy. (Grote.)

## GOVERNMENT AND POLITICS

- G. & P. 97. GOVERNMENTS AND POLITICS OF EUROPE. (3)**  
M.T.Th.F., 11:00; Q-110. Prerequisite, G. & P. 1. A comparative study of the political systems of the United Kingdom, France, Germany, Italy, and other selected European countries. (Onyewu.)
- G. & P. 101. INTERNATIONAL POLITICAL RELATIONS. (3)**  
M.T.Th.F., 8:00; Q-132. Prerequisite, G. & P. 1. A study of the major factors underlying international relations, the methods of conducting foreign relations, the foreign policies of the major powers, and the means of avoiding or alleviating international conflicts. (Piper.)
- G. & P. 106. AMERICAN FOREIGN RELATIONS. (3)**  
M.T.Th.F., 9:30; Q-211. Prerequisite, G. & P. 1. The principles and machinery of the conduct of American foreign relations, with emphasis on the Department of State and the Foreign Service, and an analysis of the major foreign policies of the United States. (Staff.)
- G. & P. 110. PRINCIPLES OF PUBLIC ADMINISTRATION. (3)**  
M.T.Th.F., 8:00; Q-131. Prerequisite, G. & P. 1. A survey of public administration in the United States, giving special attention to the principles of organization and management and to fiscal, personnel, planning, and public relations practices. (Frederickson.)
- G. & P. 124. LEGISLATURES AND LEGISLATION. (3)**  
M.T.Th.F., 11:00; Q-130. Prerequisite, G. & P. 1. A comprehensive study of legislative organization, procedure, and problems. The course includes opportunities for student contact with Congress and with the Legislature of Maryland. (Zimring.)
- G. & P. 141. HISTORY OF POLITICAL THEORY. (3)**  
M.T.Th.F., 9:30; Q-131. Prerequisite, G. & P. 1. A survey of the principal political theories set forth in the works of writers from Plato to Bentham. (Schick.)
- G. & P. 142. RECENT POLITICAL THEORY. (3)**  
M.T.Th.F., 11:00; Q-211. Prerequisite, G. & P. 1. A study of 19th and 20th century political thought, with special emphasis on recent theories of socialism, communism, and fascism. (Byrd.)
- G. & P. 154. PROBLEMS OF WORLD POLITICS. (3)**  
M.T.Th.F., 8:00; G-109-A. Prerequisite, G. & P. 1. A study of governmental problems of international scope, such as causes of war, problems of neutrality, and propaganda. Students are required to report on readings from current literature. (Koury.)
- G. & P. 174. POLITICAL PARTIES. (3)**  
M.T.Th.F., 9:30; Q-130. Prerequisite, G. & P. 1. A descriptive and analytical examination of American political parties, nominations, elections, and political leadership. (Zimring.)
- G. & P. 197. COMPARATIVE POLITICAL SYSTEMS. (3)**  
M.T.Th.F., 11:00; Q-108. Prerequisites, G. & P. 97 and at least one other course in comparative government. A study, along functional lines, of major political institutions, such as legislatures, executives, courts, bureaucracies, public organizations, and political parties. (Podelco.)

## JOURNALISM

### G. & P. 203. FUNCTIONAL PROBLEMS IN INTERNATIONAL RELATIONS. (3)

M.Th., 12:30; Q-369. An examination of the major substantive issues in contemporary international relations, involving reports on selected topics based on individual research. (Piper.)

### G. & P. 207. SEMINAR IN COMPARATIVE GOVERNMENTAL INSTITUTIONS. (3)

M.Th., 3:00; Q-169. Reports on selected topics for individual study and reading in governmental and political institutions in governments throughout the world. (Koury.)

### G. & P. 208. SEMINAR IN THE GOVERNMENT AND POLITICS OF EMERGING NATIONS. (3)

M.W., 7:00 P. M.; Q-369. An examination of the programs of political development in the emerging nations with special reference to the newly independent nations of Asia and Africa and the less developed countries of Latin America. Individual reporting as assigned. (Onyewu.)

### G. & P. 213. PROBLEMS OF PUBLIC ADMINISTRATION. (3)

T.F., 12:30; Q-369. Reports on topics assigned for individual study and reading in the field of public administration. (Cox.)

### G. & P. 225. MAN AND THE STATE. (3)

T.F., 3:00; Q-369. Prerequisite, G. & P. 142. Individual reading and reports on such recurring concepts in political theory as liberty, equality, justice, natural law and natural rights, private property, sovereignty, nationalism and the organic state. (Byrd.)

### G. & P. 261. PROBLEMS IN AMERICAN GOVERNMENT AND POLITICS. (3)

T.Th., 7:00 P. M., Q-369. An examination of contemporary problems in various fields of government and politics in the United States with reports on topics assigned for individual study. (Soles.)

### G. & P. 399. THESIS RESEARCH. (1-6)

Arranged. Credit according to work assigned. (Staff.)

## JOURNALISM

### JOURN. 10. INTRODUCTION TO JOURNALISM. (3)

June 20-July 29. Daily, 11:00; G304. Survey of journalism, professional careers in writing and communications; news writing in laboratory. Prerequisites: At least average grade of C in English; ability to type at least 30 words a minute. Laboratory fee, \$3.00. (Newsom.)

### JOURN. 100. NEWS REPORTING. (3)

Daily, 9:30, G304. News writing and reporting, campus news beat in producing supervised weekly school newspaper in laboratory. Prerequisite: Type 30 words per minute. Laboratory fee, \$3.00. (Noall.)



JOURN. 152. ADVERTISING COPY AND LAYOUT. (3)

June 20-July 29. Daily, 8:00; G307. Theory and practice in advertising copy and layout, with emphasis on newspaper advertising, for letterpress and photo-offset printing. Use of illustrations, type selection, copy-fitting, media selection. Sell advertising for supervised weekly school newspaper in laboratory. (Newsom.)

JOURN. 160. NEWS EDITING. (3)

Daily, 11:00; G305. News editing, head writing, newspaper layout, on supervised weekly school newspaper in laboratory. Laboratory fee, \$3.00. (Crowell.)

JOURN. 166. PUBLIC RELATIONS. (3)

June 20-July 29. Daily, 11:00; G309. Principles of public relations. (Kobre)

JOURN. 173. SCHOLASTIC JOURNALISM. (3)

June 20-July 29. Daily, 8:00; G304. Introduction to theory and practice of highschool publications, for scholastic publications advisers. (Crowell.)

JOURN. 189S. SCHOLASTIC JOURNALISM WORKSHOP. (3)

June 20-July 8. Daily, 10:00-3:30; G310; G305. Workshop in the school newspaper, for advisers. One paper produced in laboratory. (Noall.)

JOURN. 192. HISTORY OF AMERICAN JOURNALISM. (3)

June 20-July 29. Daily, 12:30; G-309. Influences on political, social and cultural institutions. (Kobre.)

JOURN. 196. PROBLEMS IN JOURNALISM. (1 or 2)

Daily, arr.; G-202. (Staff.)

EDUCATION

*EARLY CHILDHOOD—ELEMENTARY EDUCATION \**

ECEEd 105-B. SCIENCE IN THE ELEMENTARY SCHOOL. (2-3)

Section 1-B. (3) June 20-July 29, Daily, 8:00; OO-210. (Blough)  
 Section 2-B. (3) June 20-July 29, Daily, 9:30; OO-210. (Williams.)  
 Section 3-B. (2) June 20-July 29, M.T.Th.F., 11:00; OO-210. (Williams.)  
 Open only to pre-service undergraduate students. Laboratory fee, \$2.00.

ECEEd 115. ACTIVITIES AND MATERIALS IN EARLY CHILDHOOD EDUCATION. (3)

June 20-July 29. Daily, 8:00; OO-105. Prerequisite, ECEEd 50, 51, or 110. Laboratory fee, \$5.00. (Stant.)

ECEEd 116. MUSIC IN EARLY CHILDHOOD EDUCATION. (3)

June 20-July 29. Daily, 9:30; OO-105. Prerequisite: Music 16 or equivalent. (L. Brown.)

ECEEd 121. LANGUAGE ARTS IN THE ELEMENTARY SCHOOL. B. (3)

Section 1 June 20-July 29. Daily, 1:00; OO-127. (Zachary.)  
 Section 2 June 20-July 29. Daily, 9:30; T-202. (Edgemon.)

\*Throughout this section, A refers to Early Childhood level, B refers to Elementary level, C refers to Secondary level.

## EDUCATION

- ECEED 122. SOCIAL STUDIES IN THE ELEMENTARY SCHOOL. B. (3)  
June 20-July 29. Daily, 11:00; OO-225. (Weaver.)
- ECEED 123B., THE CHILD AND THE CURRICULUM. (3)  
June 20-July 29. Daily, 11:00; T-103. (Edgemon.)
- ECEED 124. MATHEMATICS IN THE ELEMENTARY SCHOOL. B. (2-3)  
Section 1 M.T.Th.F., 8:00; OO-222 (3) (Schindler.)  
Section 2 M.T.Th.F., 9:30; OO-222 (3) (Schindler.)  
Section 3 June 20-July 29; M.T.Th.F., 8:00; T-201. Open only to pre-service  
undergraduate students. (2) (Ashlock.)
- ECEED 125. ART IN THE ELEMENTARY SCHOOL. (3)  
June 21-July 30. Daily, 11:00; NN-330. (Sullivan.)  
Enrollment limited to 25 students.
- ECEED 140A. CURRICULUM AND INSTRUCTION: A—COOPERATIVE  
NURSERY SCHOOL. (3)  
June 20-July 29. Daily, 11:00; OO-118. (Stant.)
- ECEED 140B. CURRICULUM AND INSTRUCTION: B.—EARLY CHILDHOOD.  
(3)  
June 20-July 29. Daily, 11:00; OO-112. (Pfau.)
- ECEED 152. LITERATURE FOR CHILDREN AND YOUNG PEOPLE,  
ADVANCED. (3)  
June 20-July 29. Daily, 8:00; T-102. Prerequisite, ECEED 52 or approval of  
the professor. (Pfau.)
- ECEED 153-B. THE TEACHING OF READING. (3)  
Section 1-B. June 20-July 29. Daily, 8:00; OO-127. (Herman.)  
Section 2-B. June 20-July 29. Daily, 11:00; T-102. (Herman.)
- ECEED 205. PROBLEMS IN TEACHING SCIENCE IN ELEMENTARY  
SCHOOLS. (2)  
June 20-July 29, M.T.Th.F., 9:30; OO-220. Enrollment limited to 15.  
(Blough)
- ECEED 210. CURRICULUM PLANNING IN NURSERY AND KINDERGARTEN  
EDUCATION. (3)  
June 20-July 29. Daily, 9:30; T-203. (Hymes.)
- ECEED 212. THE YOUNG CHILD IN SCHOOL. (3)  
June 20-July 29. Daily, 11:00; T-203 (Hymes.)
- ECEED 221. PROBLEMS OF TEACHING LANGUAGE ARTS IN ELEMENTARY  
SCHOOLS. (2)  
June 20-July 29. Daily, 11:00; T-201. Enrollment limited to 15. (Zachary.)

**ECEED 222. PROBLEMS OF TEACHING SOCIAL STUDIES IN ELEMENTARY SCHOOLS. (2)**

June 20-July 29. M.T.Th.F., 1:00; OO-220. Enrollment limited to 15.  
(Weaver.)

**GENERAL EDUCATION**

- ED. 100. HISTORY OF EDUCATION IN WESTERN CIVILIZATION. (3)**  
M.T.Th.F., 9:30; O-236. (Lindsay.)
- ED. 102. HISTORY OF EDUCATION IN THE UNITED STATES. (3)**  
June 20-July 29. Daily, 11:00; OO-227. (Finkelstein)
- ED. 107. PHILOSOPHY OF EDUCATION. (3)**  
June 20-July 29. Daily, 11:00; OO-126. (Noll.)
- ED. 110. HUMAN DEVELOPMENT AND LEARNING. (6)**  
June 20-July 29. Daily, 9:30-12:20; OO-312. (Larson.)
- ED. 111. FOUNDATIONS OF EDUCATION. (3)**  
Sect. 1, M.T.Th.F., 8:00, O-240. (Lindsay.)  
Sect. 2, June 20-July 29. Daily, 9:30; OO-301. (Noll.)  
Sect. 3, M.T.Th.F., 11:00; OO-303. (Agre.)
- ED. 147. AUDIO-VISUAL EDUCATION. (3)**  
Sect. 1, June 20-July 29. Daily, 8:00; P-300. (Maley.)  
Sect. 2, June 20-July 29. Daily, 9:30; P-300. (Schramm.)  
Sect. 3, M.T.Th.F., 11:00; P-300. (Schramm.)
- ED. 150. EDUCATIONAL MEASUREMENT. (3)**  
Sect. 1, June 20-July 29. Daily, 11:00; OO-101. (Giblette.)  
Sect. 2, M.T.Th.F., 8:00; OO-118. (Staff.)  
Sect. 3, M.T.Th.F., 9:30; OO-126. (Staff.)
- ED. 151. STATISTICAL METHODS IN EDUCATION. (3)**  
Sect. 1, M.T.Th.F., 8:00; O-236. (Stunkard.)  
Sect. 2, M.T.Th.F., 9:30; OO-225. (Staff.)
- ED. 157. CORRECTIVE-REMEDIAL READING INSTRUCTION. (3)**  
June 20-July 29. Daily, 9:30; OO-303. Prerequisite, ECEED 153 or equivalent (Sullivan)
- ED. 161. INTRODUCTION TO COUNSELING AND PUPIL SERVICES. (3)**  
Sect. 1, M.T.Th.F., 8:00; OO-303. (Rhoads.)  
Sect. 2, M.T.Th.F., 8:00; OO-112. (Schmuller.)
- ED. 162. MENTAL HYGIENE IN THE CLASSROOM. (3)**  
M.T.Th.F., 9:30; OO-227. (Chenault.)
- ED. 188. SPECIAL PROBLEMS IN EDUCATION. (1-3)**  
Prerequisite, consent of instructor. Available only to mature students who have definite plans for individual study of approved problems. Course cards must have the title of the problem and the name of the faculty member who has approved it. Arranged. Credit according to work assigned. (Staff.)

## EDUCATION

- ED. 189. WORKSHOPS, CLINICS, AND INSTITUTES. (See pages 13-21)
- ED. 189-1. EDUCATION IN FAMILY FINANCE. (4)  
June 20-July 15, 8:30-3:30; Q-27. See page 16. (C. Anderson.)
- ED. 189-7. WORKSHOP IN SUPERVISION OF STUDENT TEACHERS. (3)  
June 20-July 8. Daily, 9:30-3:30; T-5. See page 20. (Collins.)
- ED. 189-8. WORKSHOP IN INSTRUCTIONAL MATERIALS. (3)  
July 18-Aug. 5. 8:00-10:40. Daily; L-493. See page 18. (Staff.)
- ED. 189-26. HUMAN RELATIONS IN EDUCATIONAL ADMINISTRATION (6)  
June 20-July 29. Daily, 9:00-3:00. (Off Campus.)  
Prerequisite, a master's degree. Enrollment limited. Preference in enrollment will be given to teams designated by Maryland school systems. (Newell.)  
See page 18
- ED. 189-29. WORKSHOP IN THE EDUCATION OF CHILDREN WITH LEARNING DISABILITIES. (4)  
June 20-July 29. Daily, 9:00-12:30. To be held off-campus. (Simms.)  
See page 15
- ED. 189-33. CHILD STUDY LEADERS. (2)  
June 20-July 1. Daily, 8:00-3:00; J-302. (Kurtz, Thompson.)  
See page 16
- ED. 189-35. APPLICATION OF HUMAN DEVELOPMENT PRINCIPLES IN CLASSROOMS. (2)  
July 4-July 15. Daily, 8:00-3:00; J-302. (Thompson.)  
See page 17
- ED. 189-36. HUMAN DEVELOPMENT AND RELIGIOUS EDUCATION. (2)  
July 18-July 29. Daily, 8:00-3:00; J-302. (Kurtz, Thompson.)  
See page 17
- ED. 189-37. ACTION RESEARCH IN HUMAN DEVELOPMENT EDUCATION. (2)  
Aug. 1-Aug. 12. Daily, 8:00-3:00; J-302. (Kurtz.)  
See page 17
- ED. 189-41. N.D.E.A. COUNSELING AND GUIDANCE TRAINING INSTITUTE. (1)  
June 20-Aug. 5. Daily, 8:30-5:00; J-314.  
Concurrent registration in Ed. 261, section 2, and Ed. 249, section 2 is required. (Ray.)
- ED. 189-47. NDEA INSTITUTE FOR TEACHERS OF SECONDARY SCHOOL ENGLISH. (6) Open only to Institute registrants.  
June 20-July 29. Daily, 9:00-3:00; G-205. (Portz.)
- ED. 189-53. EDUCATOR'S WORKSHOP ON AUTOMATIC DATA PROCESSING. (6)  
June 20-July 29. Daily, 9:00-12:00; Q-19. Daily, Labs. and conferences, p.m.  
A prerequisite of mathematics is not required. (See page 16) (Patrick.)

EDUCATION

- ED. 189-57. WORKSHOP IN TEAM TEACHING. (3)  
 June 20-July 8. Daily, 9:30-3:30; J-332. See page 20. (Kleman.)
- ED. 189-64. NDEA INSTITUTE FOR TEACHERS OF GEOGRAPHY. (6)  
 June 20-July 29. Daily, 9:00-3:30; Q-209. (Staff.)
- ED. 189-67. WORKSHOP IN VOCATIONAL EDUCATION. (1)  
 W., 8:00; P-306. See page 21. (Schact.)
- ED. 189-72. EUROPEAN TRAVEL SEMINAR (6)  
 June 20-Aug. 11. See page 16. (O'Neill.)
- TYPEWRITING DEMONSTRATION LABORATORY. (0)  
 July 20-July 29. 8:30-10:15. (O'Neill.)
- ED. 202. JUNIOR COLLEGE. (3)  
 June 20-July 29. Daily, 9:30; A-50. (Kelsey.)
- ED. 203. PROBLEMS IN HIGHER EDUCATION. (3)  
 June 20-July 29. Daily, 8:00; A-50. (Kelsey.)
- ED. 208. ANALYSIS OF EDUCATIONAL CONCEPTS. (3)  
 M.T.Th.F., 9:30; O-240. (Agre.)
- ED. 210. THE ORGANIZATION AND ADMINISTRATION OF PUBLIC EDUCATION. (3)  
 M.T.Th.F., 8:30; OO-225. (Dudley.)
- ED. 211. THE ORGANIZATION AND ADMINISTRATION OF SECONDARY SCHOOLS. (3)  
 June 20-July 29. Daily, 8:00; LL-2 (J. P. Anderson.)
- ED. 214. SCHOOL PLANT PLANNING. (3)  
 June 20-July 29. Daily, 9:30; OO-125. (Van Zwoll.)
- ED. 216. PUBLIC SCHOOL SUPERVISION. (3)  
 Sect. 1, June 20-July 29. Daily, 9:30. NN-320. (Neville.)  
 Sect. 2, June 20-July 29. Daily, 9:30; OO-118. (J. P. Anderson.)
- ED. 217. ADMINISTRATION AND SUPERVISION IN ELEMENTARY SCHOOLS. (3)  
 M.T.Th.F., 11:00. OO-1052. (Dudley.)
- ED. 227. PUBLIC SCHOOL PERSONNEL ADMINISTRATION. (3)  
 June 20--July 29. Daily, 8:00; T-103. (Van Zwoll.)

## EDUCATION

- ED. 234. THE SCHOOL CURRICULUM. (2)  
June 20-July 29. M.T.Th.F., 9:30; OO-101. (Hovet.)
- ED. 235. PRINCIPLES OF CURRICULUM DEVELOPMENT. (3)  
June 20-July 29. Daily, 8:00; OO-101. (Staff.)
- ED. 245. INTRODUCTION TO RESEARCH. (2)  
Sect. 1, June 20-July 29. M.T.Th.F., 9:30; F-103. (Raths.)  
Sect. 2, June 20-July 29. M.T.Th.F., 11:00; OO-312. (Hovet.)  
Sect. 3, M.W.F., 8:00; F-101. (Dayton.)  
Sect. 4, M.W.F., 9:30; F-101. (Klevan.)  
Sect. 5, M.W.F., 11:00; F-101. (Staff.)
- ED. 249. PERSONALITY THEORIES IN EDUCATION. (3)  
Sect. 1, M.T.Th.F., 9:30; LL-201. (Schmuller.)  
Sect. 2, June 20-Aug.-5, Arranged. Restricted to those enrollees registered for Ed. 189-41.
- ED. 250. CASES IN PUPIL APPRAISAL. (3)  
Daily, 9:30; F-104. June 20-July 29. (Marx.)
- ED. 251. INTERMEDIATE STATISTICS IN EDUCATION. (3)  
M.T.Th.F., 9:30; G-309. Limited to 35. (Dayton.)
- ED. 253. OCCUPATIONAL CHOICE THEORY AND INFORMATION. (3)  
Daily, 11:00; A-7. June 20-July 29. (Ehrle.)
- ED. 255, 256. ADVANCED LABORATORY EXPERIENCES IN READING INSTRUCTION. (3, 3)  
June 20-July 29. Daily. Arranged; OO-125. Prerequisites: 21 credits applicable to master's degree program in Corrective-Remedial Reading, including Ed. 157, Ed. 150, either Ed. 241 or ECEEd 221, and a written application by June 1, 1966. (Wilson.)
- ED. 257. DIAGNOSIS AND REMEDIATION OF READING DISABILITIES. (3)  
June 20-July 29. Daily, 8:00; OO-125. Prerequisites, ECEEd 153, Ed. 157.
- ED. 259. COUNSELING IN ELEMENTARY SCHOOLS. (3)  
Daily, 8:00; OO-227. June 20-July 29. (Staff.)
- ED. 260. SCHOOL COUNSELING: THEORETICAL FOUNDATIONS AND PRACTICE. (3)  
M.T.Th.F., 11:00; A-8. (Chenault.)
- ED. 261. PRACTICUM IN COUNSELING. (2)  
Enrollment limited; apply to Dr. George Marx, College of Education.  
Sect. 1, M.W.F., 9:30; OO-320. (Rhoads.)  
Sect. 2, June 20-Aug. 5. Arranged. (3). Restricted to those NDEA enrollees registered for Ed. 189-41. (Staff.)

## EDUCATION

- ED. 262. MEASUREMENT IN PUPIL APPRAISAL. (3)  
June 20-July 29. Daily, 11:00; OO-127. (Giblette.)
- ED. 280. RESEARCH METHODS AND MATERIALS. (2)  
M.W.F., 9:30; LL-105. (Stunkard.)
- ED. 281. SOURCE MATERIALS IN EDUCATION. (2)  
June 20-July 29. M.T.Th.F., 8:00; A-8. (Staff.)
- ED. 288. SPECIAL PROBLEMS IN EDUCATION. (1-6)  
Arranged. Master of Education or doctoral candidates who desire to pursue special research problems under the direction of their advisers may register for credit under this number. Course cards must have the title of the problem and the name of the faculty member under whom the work will be done. Credit according to work assigned. (Staff.)
- ED. 290. DOCTORAL SEMINAR. (1)  
Thursday, 1:00-3:00. Prerequisite, consent of instructor. (Dayton.)
- ED. 399. RESEARCH-THESIS. 1-6)  
Arranged. Credit according to work assigned. (Staff.)

## SECONDARY EDUCATION

- SEC. ED. 141. METHODS OF TEACHING ENGLISH IN SECONDARY SCHOOLS. (3)  
June 20-July 29. Daily, 9:30; OO-307. (Bryan.)
- SEC. ED. 142. TEACHING THE AUDIO-LINGUAL SKILLS IN FOREIGN LANGUAGES. (3)  
June 20-July 29. Daily, 9:30; LL-116. (Staff.)
- SEC. ED. 145. PRINCIPLES AND METHODS OF SECONDARY EDUCATION. (3)  
June 20-July 29. Daily, 8:00; OO-126. (Bryan.)
- H.E.ED. 102. PROBLEMS IN TEACHING HOME ECONOMICS. (3)  
June 20-July 15. M.T.Th.F., 8:00-10:30; OO-102. (Spencer.)
- H.E.ED. 200. SEMINAR IN HOME ECONOMICS EDUCATION.  
July 20-Aug. 12. M.T.Th.F., 8:00-9:50; OO-312. (Spencer.)
- B.ED. 101. PROBLEMS IN TEACHING OFFICE SKILLS. (2)  
June 20-July 29. M.T.Th.F., 11:00; Q-6. (O'Neill.)
- B.ED. 102. METHODS AND MATERIALS IN TEACHING. (2)  
Bookkeeping and Related Subjects. June 20-July 29. M.T.Th.F., 9:30; Q-6. (Staff.)

## EDUCATION

- B.ED. 205. SEMINAR IN BUSINESS EDUCATION. (2)  
June 20-July 29. M.T.Th.F., 9:30; Q-27. (Fries.)
- B.ED. 256. CURRICULUM DEVELOPMENT IN BUSINESS EDUCATION. (3)  
June 20-July 29. Daily, 12:30; Q-6. (Fries.)

## MUSIC EDUCATION\*

- MUS. ED. 125. CREATIVE ACTIVITIES IN THE ELEMENTARY SCHOOL. (3)  
Three weeks, June 20-July 8. Daily, 8:00-10:50; NN-208. Prerequisite, Music 16 or consent of instructor. A study of the creative approach to singing, listening, playing, rhythmic activity, and composition. Special emphasis on contemporary music and creativity. In the 1966 Summer Session, groups of children will be available for demonstrations. (Shelley.)
- MUS. ED. 132. MUSIC IN SECONDARY SCHOOLS. (3)  
Three weeks, July 11-29. NN-208. Prerequisite, consent of the instructor. A study of the music program in the secondary school, with an emphasis on methods and materials for general music. The needs in general music are surveyed, and the relationship of music to the general education program is investigated. In the 1966 Summer Session, groups of children will be available for demonstrations. (Shelley.)
- MUS. ED. 155. ORGANIZATION AND TECHNIQUE OF INSTRUMENTAL CLASS INSTRUCTION. (3)  
June 20-July 29. Daily, 11:00; NN-208. Practical instruction in the methods of tone production, tuning, fingering, and in the care of woodwind and bass instruments. A survey of the materials and published methods for class instruction. (Dunham.)
- MUS. ED. 200. RESEARCH METHODS IN MUSIC AND MUSIC EDUCATION. (3)  
June 20-July 29. Daily, 11:00; NN-202. The application of methods of research to problems in the fields of music and music education. The preparation of bibliographies and the written exposition of research projects in the area of the student's major interest. (Grentzer.)
- MUS. ED. 205. SEMINAR IN VOCAL MUSIC IN THE ELEMENTARY SCHOOLS. (3)  
June 20-July 29. Daily, 9:00-10:20; NN-202. A comparative analysis of current methods and materials used in the elementary schools. A study of the music curriculum as a part of the total school program. Special emphasis on contemporary music and creative activities. In the 1966 Summer Session, groups of children will be available for demonstrations. (Grentzer.)

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\* For Music, see page 38.



**HUMAN DEVELOPMENT EDUCATION**

- H. D. ED. 105. ADOLESCENT DEVELOPMENT. (3)  
June 20-July 29. Daily, 11:00; OO-125. (Mershon.)
- H. D. ED. 107. GROWTH AND DEVELOPMENT IN EARLY CHILDHOOD (3)  
June 20-July 29. Daily, 8:00; J-244. (Broome.)
- H. D. ED. 112, 114. SCIENTIFIC CONCEPTS IN HUMAN DEVELOPMENT (3)  
June 20-July 29. Daily, 8:00-3:00; J-226. (Kyle.)
- H. D. ED. 113, 115. LABORATORY IN BEHAVIOR ANALYSIS (3)  
June 20-July 29. Daily, 8:00-3:00; J-236. (Kyle.)
- H. D. ED. 145. GUIDANCE OF YOUNG CHILDREN. (3)  
June 20-July 29. Daily, 9:30; J-244. (Broome.)
- H. D. ED. 200. INTRODUCTION TO HUMAN DEVELOPMENT AND CHILD STUDY. (3)  
Section 1—June 20-July 29. Daily, 8:00; OO-301. (Mershon.)  
Section 2—June 20-July 29. Daily, 9:30; OO-112. (Morgan.)
- H. D. ED. 201. BIOLOGICAL BASES OF BEHAVIOR. (3)  
Section 1—June 20-July 29. Daily, 8:00; OO-223. (Morgan.)  
Section 2—June 20-July 29. Daily, 9:30; J-140. (Goering.)
- H. D. ED. 202. SOCIAL BASES OF BEHAVIOR. (3)  
Section 1—June 20-July 29. Daily, 8:00; OO-307. (Goering.)  
Section 2—June 20-July 29. Daily, 11:00; J-336. (Bowie.)
- H. D. ED. 203. INTEGRATIVE BASES OF BEHAVIOR. (3)  
June 20-July 29. Daily, 9:30; J-153. (Bowie.)
- H. D. ED. 210. AFFECTIONAL RELATIONSHIPS AND PROCESSES IN HUMAN DEVELOPMENT. (3)  
June 20-July 29. Daily, 9:30; J-170. (Hatfield.)
- H. D. ED. 211. PIER-CULTURE AND GROUP PROCESSES IN HUMAN DEVELOPMENT. (3)  
June 20-July 29. Daily, 11:00; OO-223. (Hatfield.)
- H. D. ED. 212, 214. ADVANCED SCIENTIFIC CONCEPTS IN HUMAN DEVELOPMENT, I, II. (3) (3)  
June 20-July 29. Daily, 8:00-3:00; J-270. (Prescott.)
- H. D. ED. 213, 215. ADVANCED LABORATORY IN BEHAVIOR ANALYSIS, I, II. (3) (3)  
June 20-July 29. Daily, 8:00-3:00; J-272. (Prescott.)
- H. D. ED. 221. LEARNING THEORY AND THE EDUCATIVE PROCESS. (3)  
Section 1—June 20-July 29. Daily, 8:00; J-282. (Milhollan.)  
Section 2—June 20-July 29. Daily, 11:00; J-282. (Milhollan.)

## EDUCATION

### INDUSTRIAL EDUCATION

- I. ED. 9. INDUSTRIAL ARTS IN THE ELEMENTARY SCHOOL I. (2)  
June 20-July 29. Daily, 9:30; P-214. Laboratory fee \$5.00. (Gettle.)
- I. ED. 28. ELECTRICITY-ELECTRONICS I (3)  
Daily, 8:00; P-212. Laboratory fee, \$7.50. (Guy.)
- I. ED. 33. AUTOMOTIVES I (3)  
Daily, 9:30; P-120. Laboratory fee \$7.50. (Merrill.)
- I. ED. 43 AUTOMOTIVES II (3)  
(Merrill.)
- I. ED. 48. ELECTRICITY-ELECTRONICS II  
Daily, 8:00; P-212. Laboratory fee \$7.50. (Guy.)
- I. ED. 50. METHODS OF TEACHING (3)  
M.T.Th.F., 11:00; P-306. (Luetkemeyer.)
- I. ED. 84. ORGANIZED AND SUPERVISED WORK EXPERIENCES. (3)  
Arranged for students enrolled in the Education for Industry curriculum.  
(Guy, Crosby.)
- I. ED. 115. RESEARCH AND EXPERIMENTATION IN INDUSTRIAL ARTS (3)  
June 20-July 29. Daily 11:00; P-108. (Maley.)
- I. ED. 121. INDUSTRIAL ARTS IN SPECIAL EDUCATION (3)  
June 20-July 29. 12:30-3:00. Four hours laboratory per week, one hour lecture. Prerequisite, Sp. Ed. 170 and 171 or consent of instructor. Laboratory fee, \$5.00. This course provides experiences of a technical and theoretical nature in industrial processes applicable for class-room use. Emphasis is placed on individual research in the specific area of one major interest in special education. (Staff.)
- I. ED. 124. ORGANIZED AND SUPERVISED WORK EXPERIENCES. (3)  
Arranged for students enrolled in the Education for Industry curriculum.  
(Gettle, Merrill.)
- I. ED. 150. TRAINING AIDS DEVELOPMENT. (3)  
June 20-July 29. Daily, 8:00; P-300. (Maley.)
- I. ED. 164. SHOP ORGANIZATION AND MANAGEMENT (3)  
Sect. 1, M.T.Th.F., 9:30; P-208. (Schacht.)  
Sect. 2, June 20-July 29. Daily, 11:00; P-205. (Mertens.)
- I. ED. 165. MODERN INDUSTRY. (3)  
M.T.Th.F., 11:00; P-306. (Harrison.)
- I. ED. 169. OCCUPATIONAL ANALYSIS AND COURSE CONSTRUCTION. (3)  
Sect. 1, June 20-July 29. Daily, 8:00; P-205. (Mertens.)  
Sect. 2, M.T.Th.F., 8:00; P-208. (Luetkemeyer.)

## EDUCATION

- I. ED. 171. HISTORY AND PRINCIPLES OF VOCATIONAL EDUCATION (3)  
June 20-July 29. Daily, 9:30; P-306. (Crosby.)
- I. ED. 175. RECENT TECHNOLOGICAL DEVELOPMENTS IN PRODUCTS AND PROCESSES. (3)  
June 20-July 29. Daily, 9:30; P-305. (Crosby.)
- I. ED. 207. PHILOSOPHY OF INDUSTRIAL ARTS EDUCATION (3)  
M.T.Th.F., 8:00; P-221. (Harrison.)
- I. ED. 214. SHOP PLANNING AND EQUIPMENT SELECTION. (3)  
June 20-July 29. Daily, 11:00; P-221. (Tierney.)

## LIBRARY SCIENCE EDUCATION

- L. S. ED. 120. INTRODUCTION TO LIBRARIANSHIP. (3)  
June 20-July 15—Sec. 1—8:00-10:40; M.T.Th.F.; L-303. (Staff.)  
Sec. 2—12:20-3 M.T.Th.F.; L-303. (Staff.)
- L. S. ED. 128. SCHOOL LIBRARY ADMINISTRATION AND SERVICE. (3)  
July 18-Aug. 12—Sec. 1—8-10-10:40; M.T.Th.F.; L-303. (Staff.)  
Sec. 2—12:20-3; M.T.Th.F.; L-303. (E. Anderson.)
- L. S. ED. 132. LIBRARY MATERIALS FOR YOUTH. (3)  
June 20-July 15—12:20-3; M.T.Th.F.; L-452. (E. Anderson.)
- ED. 189-8. WORKSHOP IN INSTRUCTIONAL MATERIALS. (3)  
July 18-Aug. 5—8:00-10:40; Daily; L-301. (Staff.)  
See Listing on page 18

## SPECIAL EDUCATION

- SP. ED. 170. INTRODUCTION TO SPECIAL EDUCATION. (3)  
June 20-July 29. Daily, 8:00; LL-4. (Staff.)
- SP. ED. 171. CHARACTERISTICS OF EXCEPTIONAL CHILDREN. (3)  
A. Mentally Retarded.  
June 20-July 29—9:30; LL-13. (Renz.)  
C. Perceptual Learning Problems.  
June 20-July 29. Daily, 9:30; OO-127. (Campbell.)  
Prerequisite, Sp. Ed. 170.
- SP. ED. 173. CURRICULUM FOR EXCEPTIONAL CHILDREN. (3)  
A. Mentally Retarded.  
June 20-July 29—Daily, 11:00; OO-301.  
Prerequisite, Sp. Ed., 171A. (Hebeler.)
- SP. ED. 175. EDUCATION OF THE SLOW LEARNER. (3)  
June 20-July 29—Daily, 8:00; LL-104. (Renz.)
- SP. ED. 200. EXCEPTIONAL CHILDREN AND YOUTH. (3)  
June 20-July 29—Daily, 8:00; LL-104. (Huber.)

## ENGINEERING

### SP. ED. 215. EVALUATION AND MEASUREMENT OF EXCEPTIONAL CHILDREN AND YOUTH. (3)

June 20-July 29—Daily, 9:30; LL-202. Prerequisites, Ed. 150, Ed. 151, Sp. Ed. 200. (Staff.)

### SP. ED. 220. EDUCATIONAL DIAGNOSIS AND PLANNING OF EXCEPTIONAL CHILDREN AND YOUTH. (3)

June 20-July 29—Daily; 11:00; OO-220. Prerequisite, Sp.Ed. 215. (Campbell.)

### SP. ED. 235. PROBLEMS IN THE EDUCATION OF CHILDREN WITH EMOTIONAL DISTURBANCES. (3)

June 20-July 29—Daily, 11:00; LL-116. (Huber.)

## ENGINEERING

### CHEMICAL ENGINEERING

#### CH. E. 15. CHEMICAL ENGINEERING ANALYSIS. (2)\*

June 20-July 15. Daily, 9:30; U-112. Introduction to the methods of chemical engineering analysis. Prerequisite, consent of the department. (Staff.)

#### CH. E. 50. ENGINEERING THERMODYNAMICS. (2)\*

July 18-Aug. 12. Daily, 9:30; U-112. Fundamental principles of thermodynamics and their application to engineering problems. Prerequisite, consent of the department. (Staff.)

#### CH. E. 247. SPECIAL PROBLEMS IN CHEMICAL ENGINEERING. (3)

Arranged. (Staff)

#### CH. E. 314. SPECIAL PROBLEMS IN NUCLEAR ENGINEERING. (2 or 3)

Arranged. Laboratory fee, \$10.00.

#### CH. E. 399. RESEARCH IN CHEMICAL ENGINEERING. (1-6)

Arranged. Credit according to work assigned. Laboratory fee, \$8.00. (Staff.)

#### CH. E. 399. RESEARCH IN NUCLEAR ENGINEERING. (1-6)

Arranged. Credit according to work assigned. Laboratory fee, \$10.00. (Staff.)

### CIVIL ENGINEERING

#### ENCE. 90. ENGINEERING SURVEY MEASUREMENTS (3)

June 6-18 Daily, 8:00-5:00; J-154, J-156 Corequisite, Math 20 with consent of instructor. Open only to students enrolled in the College of Engineering. Standards, units, calibration; measurement of distance, elevation, angles; systematic and random error analysis in measurements; fundamentals of mapping; instrumentation. (Garber.)

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\*These two courses will be taught sequentially during the eight weeks session and students must enroll in both courses. Principally for transfer students and those with deficiencies to enable them to follow the regular Ch.E. Junior sequence in the fall.

**ELECTRICAL ENGINEERING**

**ENEE. 80. ALGORITHMIC ANALYSIS AND COMPUTER PROGRAMMING. (2)**  
 M.W., 12:30; J-326; Lab, two Sections, F. 9:30-12:00, 12:30-3:00; J-326.  
 Corequisite, Math. 21. Laboratory fee, \$5.00. Required of sophomores in Electrical Engineering. Concepts and properties of algorithms (fully defined procedures for solving problems); problems from numerical mathematics; use of a specific algorithmic language, MAD; completion of several projects using a digital computer. (Miller.)

**ENEE. 90. CIRCUIT ANALYSIS I. (4)**  
 Daily, 8:00; J-104. See ENEE 91 for related laboratory course. Corequisites, Math. 22, Phys. 21, ENEE 91. Required of sophomores in Electrical Engineering. Introduction to circuit theory; Ohm's law; Kirchhoff's laws; basic circuit analysis techniques; energy storage; power; elementary transients by classical and transform methods; sinusoidal analysis; introduction to complex frequency. ENEE 120 continues where ENEE 90 ends. (Rumbaugh.)

**ENEE 91. CIRCUITS LABORATORY I. (1)**  
 Two Sections, arranged; S-5. First Meeting of all students Wed., June 22, 9:20 A.M., Rm. S-5. Laboratory fee, \$5.00. Coresquisite, ENEE 90. Required of sophomores in Electrical Engineering. Laboratory to be taken in association with ENEE 90. Electrical components and basic test equipment, principles of measurement and data handling; circuit behavior with variation in component values.

**ENEE. 122. ELECTRONIC CIRCUITS I. (4)**  
 Daily, 8:00; J-10. See ENEE 123 for related laboratory course. Prerequisite, ENEE 120. Corequisites, ENEE 121, ENEE 123, and ENEE 130. Required of juniors in Electrical Engineering. Transistors and electron tubes in dc, pulse, and small-signal situations; analysis of basic amplifiers; biasing; basic electronic switches; tuned and wide-band amplifiers, feedback. ENEE 124 continues where ENEE 122 ends. (Glock.)

**ENEE. 123. ELECTRONICS LABORATORY I. (1)**  
 Two sections, Arranged; S-5. First meeting of all students, Wed., June 22, 9:20 A.M. S-8. Laboratory fee, \$5.00. Corequisite, ENEE 122. Required of juniors in Electrical Engineering. Laboratory to be taken in association with ENEE 122. Transistor and vacuum-tube characteristics; basic electronic switches; amplifiers; design practice. To the extent possible, work will be individual or in two-man squads.

**ENEE. 140. TRANSDUCERS AND ELECTRICAL MACHINERY. (3)**  
 M.T.Th.F., 11:00; J-10. See ENEE 141 for related laboratory course. Prerequisites, ENEE 120, ENEE 132. Corequisite, ENEE 141. Required of seniors in Electrical Engineering. Electromechanical transducers; theory of electromechanical systems; power and wide-band transformers, rotating electrical machinery from the theoretical and performance points of view. (Guha.)

**ENEE. 141. TRANSDUCERS AND ELECTRICAL MACHINERY LABORATORY. (1)**  
 Two sections, arranged; S-2. First meeting for all students Wed., June 22, 12:30 P. M., S-2. Laboratory fee, \$5.00. Corequisite, ENEE 140. Required

## ENGINEERING

of seniors in Electrical Engineering. Laboratory to be taken in association with ENEE. 140. Experiments on transformers; synchronous machines; induction motors; synchros; loudspeakers; other transducers. (Guha.)

### E.NEE. 180. TOPICS IN ELECTRICAL ENGINEERING (3)

M.T.Th.F., 9:30; J-10. Prerequisite, Senior standing. Study of selected topics from the literature of modern Electrical Engineering. (Ferris.)

## ENGINEERING SCIENCES

### E. S. 1. INTRODUCTORY ENGINEERING SCIENCE (4)

Daily, 11:00, Two 2 hour labs. to be arranged.

### E. S. 10. MECHANICS. (4)

Section 1—Daily 8.00, J-352. Section 2—Daily, 11:00; J-304. Prerequisites, E. S. 1; Math. 19 (or concurrent). Numerical, graphical and vectorial computation applied to elementary problems in mechanics. (Elkins.)

### E. S. 20. MECHANICS OF MATERIALS. (3)

M.T.Th.F., 11:00; J-140. Prerequisite, Math. 20, Phys. 20 and E. S. 10. Distortion of engineering materials with application to beams, columns, shafts, tanks, trusses, and connections. (Schelling.)

### E. S. 21. DYNAMICS. (3)

M.T.Th.F., 12:30; J-371. Prerequisites, E. S. 10, Math. 20, and Phys. 20 (or concurrent registration). Dynamics of particles and rigid bodies with applications to engineering problems. (Glass.)

## MECHANICAL ENGINEERING

### M. E. 1. THERMODYNAMICS I. (3)

M.T.W.Th.F., 8:00; J-201. Prerequisites, Phys. 20; Math. 21 concurrently.

## SCHOOL OF LIBRARY AND INFORMATION SERVICES

### L. 204. COMMUNICATION AND LIBRARIES (3)

Daily, 10:00; L-100. Communication processes are treated and the library's role as part of the larger social content is explored. (Bergen.)

### L. 206. ORGANIZATION OF KNOWLEDGE IN LIBRARIES I. (3)

M.T.Th.F., 11:00-12:20; L-100. Introduction to basic principles of subject cataloging, alphabetical and systematic. (Perreault.)

### L. 209. HISTORY OF LIBRARIES AND THEIR MATERIALS. (3)

M.T.Th.F., 12:30-1:50; L-100. The development of publication forms and institutions set against the historical framework and the cultural forces within which such advances were made. (Colson.)

### L. 215. LITERATURE AND RESEARCH IN THE SOCIAL SCIENCES. (3)

Daily, 9:00; L-453. Bibliographic organization, information structure and trends in the direction of research in the principal fields of the social sciences. (Land.)

- L. 222. CHILDREN'S LITERATURE AND MATERIALS. (3)  
Daily, 9:00; L-100. A survey of literature and other media of communication and the criteria in evaluating such materials as they relate to the needs, interests and capability of the child. (Gross.)
- L. 228. ANALYTICAL BIBLIOGRAPHY AND DESCRIPTIVE CATALOGING. (3)  
M.T.Th.F., 2:00-3:20; L-453. Concentrates on the techniques and theories appropriate to the study of bibliographic morphology and bibliographical description. (Perreault.)
- L. 231. RESEARCH METHODS IN LIBRARY AND INFORMATION ACTIVITY. (3)  
M.T.Th.F., 11:00-12:20; L-453. The techniques and strategies of research and implications for the definition, investigation and evaluation of library problems. (Bundy.)
- L. 244. MEDICAL LITERATURE. (3)  
Daily, 8:00; arranged. Survey and evaluation of information sources in medicine, with emphasis upon the bibliographical organization of the field. (Brandon.)
- L. 245. LEGAL LITERATURE. (3)  
Daily, 8:00; arranged. Survey and evaluation of information sources in law, with emphasis upon the bibliographic organization of the field. (Bougas.)
- L. 249. SEMINAR IN TECHNICAL SERVICES. (3)  
Daily, 8:00; L-452-M. Treatment of special administrative problems related to acquisition, cataloging and classification, circulation, and managerial controls. (Applebaum.)
- L. 251. INTRODUCTION TO REPROGRAPHY. (3)  
Daily, 9:00; L-452-M. A survey of the processes and technology through which materials are made available in furthering library and information services, ranging from photography to microforms. (Diaz.)
- L. 255. SEMINAR ON MANUSCRIPT COLLECTIONS. (3)  
Daily, 8:00; L-453. Analysis of the methods and philosophy of handling special papers and documentary material in a research library. (Land.)
- L. 261. SEMINAR IN THE SPECIAL LIBRARY AND INFORMATION CENTER. (3)  
M.T.Th.F., 12:30-1:50; L-453. A seminar on the development, the uses, the objectives, the philosophy and the particular systems employed in special library service. (Condon.)
- L. 265. INFORMATION SYSTEMS DESIGN. (3)  
Daily, 4:00; L-453. A workshop oriented seminar designed to cover problems of implementation and management of various types of conventional and advanced information handling systems. (Doudnikoff.)
- L. 290. INDEPENDENT STUDY. (1-3)  
Arranged. Credit according to work assigned. Prerequisite, consent of instructor. Designed to permit intensive individual study, reading or research in an area of specialized interest under faculty supervision. (Staff.)

## HOME ECONOMICS

### *FAMILY LIFE AND MANAGEMENT*

F. L. 130. HOME MANAGEMENT AND FAMILY LIFE. (3)

June 27-July 15. 9:00-11:30; H-5. Study of factors influencing establishment and maintenance of satisfying interpersonal relations throughout the family life cycle as affected by management in the home. (Reiber.)

H. M. 161. RESIDENT EXPERIENCE IN HOME MANAGEMENT. (3)

First group June 20-July 15; second group July 18-August 12. Laboratory fee, \$10.00. A charge of \$40.00 is assessed each student for food and supplies. Students not living in dormitories are billed at the rate of \$5.00 a week for a room in the Home Management House. (Staff.)

### *FOOD, NUTRITION, AND INSTITUTION ADMINISTRATION*

F. & N. 5. FOOD AND NUTRITION OF INDIVIDUALS AND FAMILIES. (3)

July 18-August 12. 9:00-12:00; H-223. Consent of instructor. Laboratory fee, \$3.00. A study of the food and nutrition of contemporary peoples. The economic, social, esthetic, and nutritional implications of food. (Staff.)

FOOD 150. FOOD ECONOMICS AND MEAL MANAGEMENT. (3)

June 20-July 16. 9:00-12:00; H-203. Consent of department. Lecture and laboratory. Laboratory fee, \$10.00. Management of family meals through study of the distribution and marketing of food, and the management of time, energy, money, and other resources. (Staff.)

H. E. S190. SPECIAL TOPICS: CONSUMER DECISIONS. (3)

July 11-July 29. Arranged. Consumer problems; consumer policies, and consumer practices. (Staff.)

FOOD 399. THESIS RESEARCH. (1-6)

(Staff.)

NUTRITION 399. THESIS RESEARCH. (1-6)

(Staff.)

### *GENERAL HOME ECONOMICS*

H. E. 190-290a. SPECIAL PROBLEMS IN APPLIED DESIGN. (1-3)

Arranged. (Shearer.)

H. E. 190-290b. SPECIAL PROBLEMS IN CLOTHING. (1-3)

Arranged. (Mitchell.)

H. E. 190-290c. SPECIAL PROBLEMS IN GENERAL HOME ECONOMICS. (1-3)

Arranged. (Wilson.)

H. E. 190-290g. SPECIAL PROBLEMS IN FOOD AND INSTITUTIONAL FOOD. (1-3)

Arranged. (Staff.)



## HOME ECONOMICS

- H. E. 201. METHODS OF RESEARCH IN HOME ECONOMICS. (3)  
July 4-July 22. 9:00-12:00; H-9. Application of scientific methods to problems in the field of home economics. (Staff.)
- H. E. 202. INTEGRATIVE ASPECTS OF HOME ECONOMICS. (2)  
June 20-July 1. 9:00-12:00; H-135. Scope and focus of total professional field with emphasis on purpose and functions as related to family and other group living. (Staff.)
- H. E. 290d. SPECIAL PROBLEMS IN FAMILY LIFE. (2)  
July 25-August 5. 9:00-12:00; H-5. (Reiber.)
- H. E. S290. SPECIAL TOPICS: CONSUMER DECISIONS. (3)  
July 11-July 29. Arranged. Consumer problems; consumer policies, and consumer practices. (Staff.)

## HOUSING AND APPLIED DESIGN

- A. D. 1. DESIGN. (3)  
June 20-July 29, Daily, 8:00; H-101. Fee, \$3.00. Art expression through various media. (Roper.)
- H. A. D. 110. EXTERIOR-INTERIOR HOUSING DESIGN. (3)  
July 25-August 12. 9:00-12:00. Prerequisite, H.A.D. 41 or equivalent. Laboratory fee, \$6.00. An analysis of the works of contemporary architects and an overview of the field of architecture, relating the elements and principles to interiors. (Shearer.)
- CRAFTS 2, 102. SIMPLE CRAFTS; CREATIVE CRAFTS. (2, 2)  
June 20-July 15. 9:30-12:30; H-102. Consent of department. Laboratory fee, \$3.00 each course. Interests and needs of persons enrolled will determine the crafts to be pursued. (Roper.)

## TEXTILES AND CLOTHING

- CLO. 120. DRAPING. (3)  
June 20-July 15. 9:00-12:00; H-215. Prerequisite Clo. 10 or equivalent. Laboratory fee, \$3.00. Demonstrations and practice in creating costumes in fabrics and on individual dress forms; modeling of garments for class criticism. (Staff.)
- T. & C. 110. FIELD EXPERIENCE IN TEXTILES AND CLOTHING. (3)  
June 20-July 15; H-132. Hours arranged. Consent of department. Supervised and coordinated training-work program in cooperation with agencies and organizations. (Mitchell.)
- T. & C. 126. FUNDAMENTALS OF FASHION. (3)  
July 18-August 5. H-132. Prerequisite, Clo. 120 or equivalent. Laboratory fee, \$3.00. Fashion history; current fashions—how to interpret and evaluate them. Fashion show techniques; fashion promotion. (Wilbur.)

## PHYSICAL EDUCATION

### TEX. 200. SPECIAL STUDIES IN TEXTILES. (2-3)

July 5-July 22. Arranged. H-123. Advanced inquiry into uses, care, types and performance of textiles; compilation of data through testing, surveys, and field trips; writing of technical reports. Laboratory fee, \$3.00. (Lyle.)

### T. & C. 399. THESIS RESEARCH. (1-6)

Arranged. Credit according to work assigned. (Staff.)

## PHYSICAL EDUCATION, RECREATION AND HEALTH

### P. E. S10. PHYSICAL EDUCATION ACTIVITIES. (1-4)

June 20-July 29. Not available for credit by physical education majors. Non-majors in physical education may use this credit to fulfill graduation requirements in physical education. Fee, \$6.00.

Section 1—Tennis (1) Daily, 12:30. Cole Courts.

Section 2—Swimming (1) Daily, 11:00. Cole Pool. (Husman.)

### P. E. 100. KINESIOLOGY. (4)

June 20—July 29. Daily, 9:30, arranged; GG-304. The study of human movement and the physical, mechanical and physiological principles upon which it depends. (Kelley.)

### P. E. 120. PHYSICAL EDUCATION FOR THE ELEMENTARY SCHOOL. (3)

June 20-July 29. 9:30; GG-310. Principles and practices will be presented and discussed along with appropriate activities for the various grade levels. (Humphrey.)

### P. E. 160. THEORY OF EXERCISE. (3)

June 20-July 29. Daily, 8:00; GG-205. A study of exercise and its physiological and kinesiological bases. (Clarke.)

### P. E. 180. MEASUREMENT IN PHYSICAL EDUCATION AND HEALTH. (3)

June 21-July 29. Daily, 8:00; GG-202. The application of the principles of techniques of educational measurement to teaching health and physical education. (Kelley.)

### P. E. 189. FIELD LABORATORY PROJECTS AND WORKSHOP. (1-6)

This course can be used for individual research projects under the guidance of an advisor. Arranged. Credit according to work accomplished. (Staff.)

### P. E. S189. FIELD LABORATORY PROJECTS AND WORKSHOP— "MODERN PHYSICAL EDUCATION PROGRAM." (3-6)

June 20-July 29. Daily 8:30-12:00; GG160. A "content" workshop concerned with physical education curriculum dynamics. Ste page 18. (Hanson.)

### P. E. 200. SEMINAR IN PHYSICAL EDUCATION, RECREATION AND HEALTH. (1)

Arranged. GG-205. (Frale.)

### P. E. 204. PHYSICAL EDUCATION AND THE DEVELOPMENT OF THE CHILD. (3)

June 20-July 29. Daily, 11:00; GG-128. An analysis of the place of physical education in meeting the growth and developmental needs of children of elementary school age. (Humphrey.)

P. E. 210. METHODS AND TECHNIQUES OF RESEARCH. (3)

June 20-July 29. Daily, 11:00; GG-128. Study of methods and techniques of research as applied to the special areas of physical education, recreation and health. (Clarke.)

P. E. 230. SOURCE MATERIAL SURVEY. (3)

June 20-July 29. Daily, 9:30; GG-202. A library survey course covering the total areas of Physical Education, Recreation and Health plus research in one specific problem of which a digest, including a bibliography is to be submitted. (Eyler.)

P. E. 250. MENTAL AND EMOTIONAL ASPECTS OF SPORTS AND RECREATION. (3)

June 20-July 29, Daily, 11:00; GG-128. An exploration of psychological aspects of physical education, sports and recreation, including personality dynamics in relation to exercise and sports, psychological factors in athletic performance and coaching, and application of principles of motor learning. (Husman.)

P. E. 288. SPECIAL PROBLEMS IN PHYSICAL EDUCATION, RECREATION, AND HEALTH. (1-6)

Arranged. Credit according to work assigned. (Staff.)

P. E. 399. RESEARCH—THESIS. (1-5)

Arranged. Credits according to work assigned. (Staff.)

*HEALTH EDUCATION*

HEA. 5. SCIENCE AND THEORY OF HEALTH. (2)

June 20-July 29. M.T.Th.F., 8:00; W-131. A study of the Science and theory of health and its importance to the health status of the individual. (Jones.)

HEA. 40. PERSONAL AND COMMUNITY HEALTH. (3)

June 20-July 29. Daily 9:30; W-131. Meaning and significance of physical, mental, and social health as related to the individual and to society. (Jones.)

HEA. 165. ORGANIZATION, ADMINISTRATION AND SUPERVISION OF SCHOOL SAFETY EDUCATION. (3)

June 20-July 29. Daily, 8:00-9:20, GG201. Prerequisite, Hea. 70. Designed for teachers, school administrators, college instructors and others responsible for directing or supervising safety programs in the schools. Deals with the problems, policies, practices and procedures involved in the organization, administration and the supervision of a comprehensive accident prevention and safety education program for the schools. Considers integration factors of the school safety programs with the special emphasis on traffic problems. (Tompkins.)

HEA. 175. PROBLEMS IN DRIVER AND TRAFFIC SAFETY EDUCATION. (3)

June 20-July 29. Daily, 9:30-10:50, GG201. Prerequisite, Hea. 145. An advanced course which gives consideration to the individual problems encountered in teaching driver and safety education. The psychology of teaching and learning are emphasized; and consideration is given to the implications of emotion and attitude factors in driver and traffic education. The course in-

## PHYSICAL EDUCATION

cludes an examination of existing courses of study, research and supervisory and evaluated practices. (Tompkins.)

### HEA. 189. WORKSHOP—ADVANCEMENTS IN HEALTH SCIENCE AND EDUCATION. (3-6)

June 20-July 29. Daily, 8:30-11:30. Lectures by health scientists, health education experts, and discussions by participants on subjects presented by specialists. See page 15 (Johnson.)

### HEA. 288. SPECIAL PROBLEMS IN PHYSICAL EDUCATION, RECREATION AND HEALTH. (1-6)

Arranged. Credit according to work assigned. (Staff.)

### HEA. 399. RESEARCH—THESIS. (1-5)

Arranged. Credit according to work assigned. (Staff.)

## RECREATION

### REC. 189B. WORKSHOP IN SCHOOL RECREATION FOR EXCEPTIONAL CHILDREN. (4)

June 20-July 29. Daily, 12:30-3:30. (See page 19) (Johnson.)

### REC. 204. MODERN TRENDS IN RECREATION. (3)

June 20-July 29. Daily, 9:30; GG-128. A study of emphasis and recent developments in the recreational field as a whole and within the various specialized areas, making particular reference to the current and new literature. (Harvey.)

# The Faculty

## SUMMER SESSION, 1966

June 20 - August 12

### *Administrative Officers*

CLODUS R. SMITH, *Director of the Summer School and Associate Professor of Agricultural and Extension Education*

B.S., Oklahoma State University, 1950; M.S., 1955; Ed.D., Cornell University, 1960.

THOMAS-J. AYLWARD, *Assistant Director of the Summer School and Associate Professor of Speech and Dramatic Art*

B.S., University of Wisconsin, 1947; M.S., 1949; Ph.D., 1960.

### *Faculty*

ADKINS, ARTHUR, *Associate Professor in Education*

A.B., St. Cloud Teachers College, 1942; M.A., University of Minnesota, 1947; Ph.D., 1953.

AGRE, GENE P., *Assistant Professor of Education*

B.A., Macalester College, 1951; B.S., University of Minnesota, 1953; M.A., 1956; Ph.D., University of Illinois, 1964.

ALLEN, REDFIELD WILMARTON, *Professor of Mechanical Engineering*

B.S., University of Maryland, 1943, M.S., 1949, Ph.D., University of Minnesota, 1959.

ALTER, JEAN V., *Associate Professor of Foreign Languages*

Licence, Universite' de Brunelles, 1948; Docteur de l'Universite', Universite' de Paris, 1951; Ph.D., University of Chicago, 1958.

ANDERSON, CHARLES R., *Instructor in Office Management and Techniques*

B.A., University of Maryland, 1957; M.Ed., 1959.

ANDERSON, EVELYN J., *Assistant Professor of Library Science Education*

B.A., Bethany College, Lindsborg, Kansas, 1935; M. A., University of Chicago, 1957.

ANDERSON, FRANK G., *Associate Professor of Sociology*

A.B., Cornell University, 1941; Ph.D., University of New Mexico, 1951.

ANDERSON, HENRY, *Associate Professor of Statistics*

B.A., University of London, 1939; M.B.A., Columbia University, 1948; Ph.D., 1959.

ANDERSON, J. PAUL, *Professor of Education*

B.S., University of Minnesota, 1942; M.A., 1947; Ph.D., 1960

## FACULTY

ANDERSON, VERNON E., *Professor of Education and Dean of the College of Education*

B.S., University of Minnesota, 1930; M.A., 1936; Ph.D., University of Colorado, 1942.

APPLEBAUM, EDMOND L., *Visiting Lecturer in Library Science*

A.B., Harvard University, 1949; M.S., Columbia University, 1950; M.P.A., Harvard University, 1955.

ASHLOCK, ROBERT B., *Assistant Professor of Education, Department of Early Childhood-Elementary Education*

B.S., Butler University, 1957; M.S., 1959; Ed.D., Indiana University, 1965.

ASHMEN, ROY, *Associate Professor of Marketing*

B.S., Drexel Institute of Technology, 1935; M.S., Columbia University, 1936; Ph.D., Northwestern University, 1950.

AVERY, WILLIAM T., *Professor and Head, Department of Classical Languages and Literatures*

B.A., Western Reserve University, 1934; M.A., 1935; Ph.D., 1937; Fellow of the American Academy in Rome, 1937-39.

BAKER, DONALD J., *Assistant Professor of Speech and Dramatic Art*

B.S., Ohio State University, 1954; M.A., 1956; Ph.D. 1962.

BARATZ, JOAN C., *Assistant Professor of Speech and Dramatic Art*

B.A., Queens College, 1961; M.S., 1962; Ph.D., University of Kansas, 1964.

BAK, RUTH, *Instructor of Mathematics*

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