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1970 SUMMER SCHOOL



University of Maryland Bulletin The University of Maryland has been elected to membership in the Association of American Universities. This Association founded in 1900, is an organization of those universities in the United States and Canada generally considered to be preeminent in the fields of graduate and professional study and research.

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The Association of University Summer Sessions has elected the University of Maryland to membership.

The provisions of this publication are net to be regarded as an irrevocable contract between the student and the University of Maryland. Changes are effected from time to time in the general regulations and in the academic requirements. There are established procedures for making changes, procedures which protect the institution's integrity and the individual student's interests and welfare. A curriculum or graduation requirement, when altered, is not made retroactive unless the alteration is to the student's advantage and can be accommodated within the span of years normally required for graduation. When the actions of a student are judged by competent authority, using established procedure, to be detrimental to the interests of the University community, that person may be required to withdraw from the University.

SUMMER SCHOOL

1970

UNIVERSITY OF MARYLAND



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January 14, 1970

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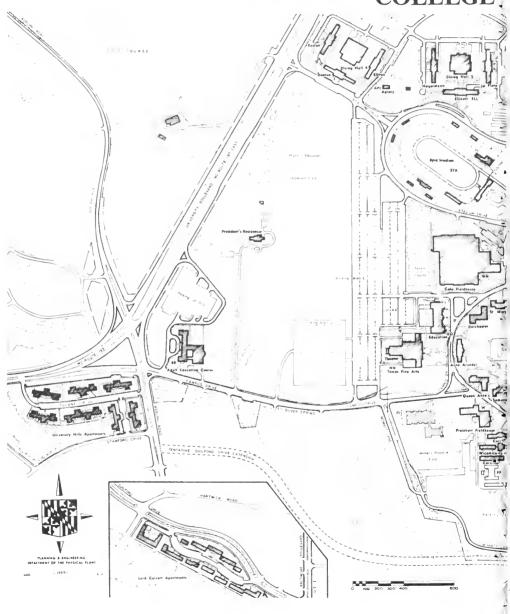
Contents

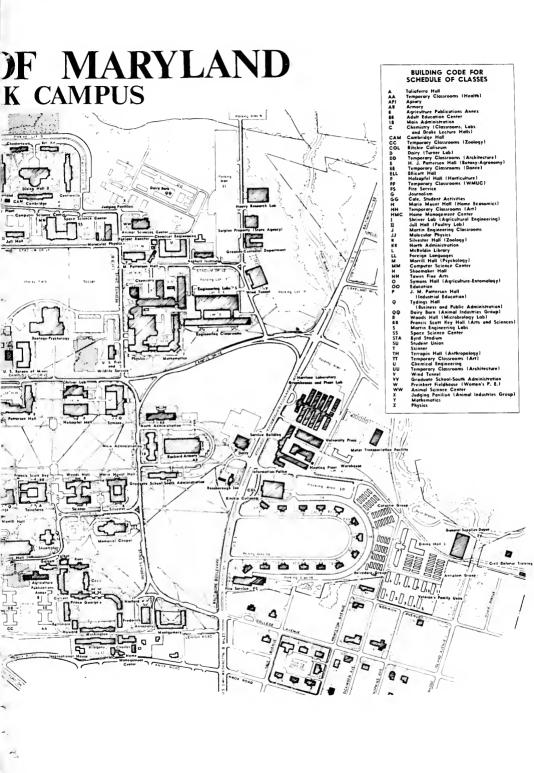
GENERAL

Campus Map	4 6 7 9	Marking System	14 14 15
Admission and Registration Procedures Terms of Admission College Park Campus Regular and Special Student Admission UMBC and University College—Baltimore Students Students from other Colleges and Universities New Freshmen Students New Transfer Students New Special Students Application Procedures for Undergraduate and Special Students New Graduate Students Registration Procedures Academic Information Academic Credit	10 10 10 10 10 10 11 12 12 12 13 14	General Education Program. Advanced Placement Program General Information Class Periods Definition of Resident and Non-Resident Student Tuition and Fees Withdrawal and Refund of Fees Living Accommodations and Food Service Student Health Automobile Registration Libraries University Bookstore For Additional Information Special Summer Activities Summer Festival of Fine Arts Summer Recreation Program. Institutes and Workshops	1516 177 177 18 19 20 21 21 22 22 24 24 24 24
COU	RSE C	DFFERINGS	
Agriculture Agricultural Economics Agricultural Engineering Agricultural and Extension Education Agronomy Animal Science Botany Entomology Food Science Horticulture	30 30 30 31 31 32 33 33 33	Arts and Sciences American Studies Anthropology Art Astronomy (see Physics and Astronomy) Chemistry Classical Languages and Literature Comparative Literature Computer Science	33 34 34 36 36 37 37

	Dance	37	General Education	64
	English	38	Industrial Education	67
	Chinese and Hebrew Program	40	Institute for Child Study	69
	French and Italian Languages		Library Science Education	71
	and Literatures	40	Music Education	71
	German and Slavic		Secondary Education	72
	Languages and Literatures	41	Special Education	73
	Spanish and Portuguese			
	Languages and Literatures	41	Engineering	74
	History	42	Chemical Engineering	74
	Mathematics	44	Civil Engineering	75
	Microbiology	47	Electrical Engineering	75
	Music	47	Engineering Sciences	76
		48		76
	Philosophy	49	Mechanical Engineering	/0
	Physics and Astronomy	50	6.1 - 1 - () 2	
	Psychology		School of Library and	70
	Sociology	51	Information Services	78
	Speech	52		- ,
	Statistics (see Mathematics)	- 4	Home Economics	76
	Zoology	54	Family and Community	
Rı	siness and Public		Development	76
	Administration	55	Food, Nutrition, and	
	Business Administration	55	Institution Administration .	77
	Economics	58	Housing and Applied Design	77
		59	Textiles and Clothing	78
	Geography	59		
		37	General Education	79
	Information Systems	40		
	Management	60	Physical Education, Recreation	
	Journalism	61	and Health	79
Εc	ducation	61	Health Education	79
_ `	Counseling and Personnel	٠.	Physical Education	80
	Services	61	Recreation	81
	Early Childhood-Elementary	٠.	Keereunen 1111111111111	•
	Education	62	Other	83
	Educational Administration,	02	Board of Regents	83
	Supervision and Curriculum	64	Officers of the University	84
	Supervision and Curriculum	04	Officers of the offiversity	04

UNIVERSITY COLLEGE.





University Calendar 1970-1971

SUMMER SESSION, 1970

JUNE	22-23	Monday-Tuesday	Summer Registration
JUNE	24	Wednesday	Instruction begins
AUGUST	14	Friday	Summer Session ends

SHORT COURSES, 1970

JUNE	15-18	Monday-Thursday	College Week for Women
AUGUST	3-7	Monday-Friday	Maryland 4-H Club Week
SEPTEMBER	8-11	Tuesday-Friday	Fireman's Short Course

FALL SEMESTER, 1970

SEPTEMBER	8-11 12 14	Tuesday-Friday Saturday Monday	Fall Semester Registration Teacher Registration Instruction begins
NOVEMBER	25	Wednesday	After last class—Thanksgiving recess begins
	30	Monday	8:00 a.m.—Thinksgiving recess ends
DECEMBER	18	Friday	After last class—Christmas recess begins

1971

4	Monday	8:00 a.m.—Christmas recess ends
13	Wednesday	Pre-exam Study Day
14-19	Thursday-Tuesday	Fall Semester Examinations
20	Wednesday	Study Day
21-22	Thursday-Friday	Fall Semester Examinations
	13 14-19 20	4 Monday 13 Wednesday 14-19 Thursday-Tuesday 20 Wednesday 21-22 Thursday-Friday

SPRING SEMESTER, 1971

FEBRUARY	1-5	Monday-Friday	Spring Semester Registration
	6	Saturday	Teacher Registration
	8	Monday	Instruction begins
APRIL	9	Friday	After last class—Spring recess begins
	19	Monday	8:00a.m.—Spring recess ends
MAY	26	Wednesday	Pre-exam Study Day
	27-29	Thursday-Saturday	Spring Semester Examinations
	31	Monday	Memorial Day
JUNE	1-4	Tuesday-Friday	Spring Semester Examinations
	5	Saturday	Commencement

REGISTRATION SCHEDULE SUMMER SCHOOL 1970

MONDAY AND TUESDAY JUNE 22 and 23, 1970

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

	Monday	Tuesday
8:15	ST-TD	HE-HR
8:40	TE-V	HS-J
9:05	WA-WH	KA-KR
9:30	WI-Y	KS-LI
9:55	Z-BAL	LJ-MA
10:20	BAM-BL	MB-MN
10:45	BM-BT	MO-NI
11:10	BU-CH	NJ-PH
11:30	CI-CO	PI-RE
1:00	CP-DN	RF-RZ
1:25	DO-EZ	SA-SGL
1:50	FA-FZ	SGM-SS
2:15	GA-GRL	
2:42	GRM-HD	

Preinkert Field House, 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

Since Social Security Numbers are now used to identify registration materials and student records, it is essential that each student bring his Social Security Card or Number with him for ready reference.



CLODUS R. SMITH, B.S., M.S., Ed.D. Director of The Summer School

The Summer School

CLODUS R. SMITH, Associate Professor of Agricultural and Extension Education and Director of the Summer School

B.S., Oklahoma State University, 1950; M.S., 1955; and Ed.D., Cornell University, 1960.

JAMES E. POTTERFIELD, Associate Professor of Education and Assistant Director of Summer School for Academic Programs

B.S., West Georgia College, 1959; M.Ed., 1962; and Ed.D., 1966, University of Georgia.

PAUL P. TRAVER, Professor of Music and Assistant Director of the Summer School for Cultural and Recreational Programs

B.Mus., Catholic University, 1955; M.Mus., 1957; and D.M.A., Stonford University, 1967.

JOHN W. CHURCHILL, Associate Professor of Recreation and Coordinator of the Summer School Recreation Program

B.S., State University of New York, Cortland, 1958; M.S., University of Illinois, 1959; Ph.D., University of Wisconsin, 1968.

The Summer School at the University of Maryland makes available year-round educational opportunities for undergraduate and graduate students who wish to fulfill degree requirements in the shortest length of time, who wish to take courses that they cannot fit into their academic year schedules, or who need to make up deficiencies or test their ability to do college work. The Summer School also seeks to broaden and vary the instructional program by appointing outstanding visiting lecturers and to stimulate students' interests by providing an academic environment which includes a diversified cultural and recreational program. To meet specific educational needs, the Summer School offers workshops and institutes for school personnel and other groups.

The extensive and varied course offerings, lectures, special institutes, and workshops are planned jointly by the Department Heads, Deans, and the Director of the Summer School. The courses offered are regular University courses taught by members of the faculty or visiting lecturers of outstanding ability.

THE SUMMER SCHOOL
224 North Administration Building
University of Maryland
College Park, Maryland 20742
Telephone (301) 454-3347/8

Admission and Registration Procedures

Terms of Admission

General Statement: The University of Maryland, in all its branches and divisions subscribes to a policy of equal educational opportunity for peoples of all races, creeds and ethnic origins.

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

College Park Campus Regular and Special Student Admission

Undergraduate day students or graduate students who were registered on the College Park Campus during the spring semester and who in good academic standing at the end of the spring semester need only to appear for registration at the time indicated on page 7.

Undergraduate day students, except Maryland elementary and secondary school teachers who are previously admitted special undergraduate students, who were not registered at the College Park Campus during the preceding semester must be readmitted or reinstated. Applications for readmission or reinstatement may be obtained from the Admissions Office and should be filed 30 days in advance of registration.

Maryland elementary and secondary school teachers who were previously admitted as special undergraduate students, who retain this classification, and who are in good academic standing, need only to appear for registration at the time indicated on page 7.

A University College-College Park student must only present a letter of permission from his dean in order to register.

UMBC and University College—Baltimore Students

The UMBC or University College-Baltimore student who wishes to take summer courses at College Park must present a letter from his dean and an application, but no fee.

Students from Other Colleges and Universities

A student seeking a bachelor's degree in any undergraduate college, who has not been previously admitted to the University, must file an application with the Director of Admissions not later than June 1, 1970.

New Freshman Students

Admission from secondary school is based on evidence indicating the applicant's probable success in the program of his choice. Applicants will be evaluated by two sets of criteria: (1) high school academic record in college

preparatory subjects and class standing and (2) the University's predictive index.

High School Record and Class Standing

Applicants for admission from secondary school who have (1) achieved at least a C average, when D is the lowest passing grade, in college preparatory subjects and (2) rank in the top half of their class will be offered admission.

Predictive Index

Applicants who have achieved at least a C average but who do not rank in the upper half of their class will be evaluated on the basis of the University's predictive index. The variables included in the index are the applicant's (1) grade-point average in academic courses, (2) class rank and (3) Scholastic Aptitude Test scores.

An applicant whose predicted grade-point average at the end of the first year is 1.75 or better will be offered admission.

Other Requirements for Admission

In addition to meeting one of the sets of criteria noted above all applicants must also:

- Be recommended for admission by their high school principal or counselor;
- Have received their high school diploma before their first registration with the University:
- Have successfully completed the high school subjects required for the college and curriculum for which application is made, except admission to the School of Architecture which is competitive with selection based on previous academic achievement;
- 4. Have completed the Scholastic Aptitude Test and have requested that the results be submitted to the University. Applicants should take the SAT before the end of the fall semester preceding enrollment at the University. For further information on the SAT, applicants should consult their high school counselor or write to the Educational Testing Service, Princeton, New Jersey 08540. To have the test results sent to the University of Maryland at College Park, use the College Park Campus code number 5814 in the proper place on the test.

New Transfer Students

An applicant must be in good standing in scholarship and character to be considered for admission. Transfer applicants who are residents of Maryland are required to have at least a C average (2.0 on a 4.0 scale) in all previous work. The Associate of Arts degree qualifies the community college transfer student for admission.

Non-resident applicants are required to have a cumulative average of at least 2.5 on a 4.0 scale.

For further information contact the Coordinator of Transfers Students, Office of Admissions.

New Special Students

Applicants over 21 years of age who qualify for admission but who do not desire to work toward a baccalaureate degree may be admitted as special students. These students are ineligible to matriculate for a degree until they have submitted all required documents. Permission from the dean of the various schools and colleges of the University is often needed in order to enroll as a special student.

Special students who have received a baccalaureate degree are advised that no credit earned while enrolled as special students may be applied at a later date to a graduate program. These post-baccalureate students may enroll for courses at the 100 to 199 level for which they possess the necessary prerequisites but may not enroll in courses restricted to graduate students only.

Application Procedures for Undergraduate and Special Students

An application form may be obtained by using the request for application found in the back of this *Bulletin* or by contacting the Office of Admissions directly.

All undergraduate and special students applying for Summer School admission, unless exempted above, must file applications with the Director of Admissions not later than June 1, 1970.

New Graduate Students

All new graduate students must file an application and all supporting records with the Office of the Vice President for Graduate Studies and Research by May 15, 1970, and must have been admitted to the University before registering for classes. To secure an application form, please fill out and return the request for application for graduate admission found in the back of this *Bulletin*.

Registration Procedures

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 10 on Admissions.

Undergraduate and graduate students enrolled in the 1970 Spring Semester and who are in good academic standing may register without further application.

Registration for all undergraduates and graduate day division students will take place in accordance with the Registration Schedule printed on page 7 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 Preinkert Field House according to the alphabetical schedule on page 7 of this catalog. All students must secure registration materials at the Preinkert Field House before going to deans or advisors. Since Social Security numbers are now used to identify registration materials and student records, it is essential that each student bring his Social Security Card or Number with him for ready references. New students must bring their letter of admission. Registration cards must be approved by both the student's advisor and dean. Graduate students must secure the approval of the Vice President for Graduate Studies and Research. Graduate students in The College of Education must secure the approval of the Dean, College of Education, as well as the Vice President for Graduate Studies and Research.

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.

Students may register in "late registration" at the Registrar's Office on June 24. After June 24, exceptional cases may be registered only after approval of the appropriate dean. The late registration fee, charged on and after June 24 is \$20.00.

Academic Information

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 Summer School are applicable 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; B, good scholarship; 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 eight to ten credits.
- Students enrolled only in courses of six-week duration may earn six to eight credits.
- Students enrolled in combinations of six and eight-week courses may earn seven to nine credits.

Graduate

- Students enrolled exclusively 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 the various doctoral and master's degree programs. A full year of residence or the equivalent is the minimum requirement for each degree. The bulletin of the Graduate School contains a full description of the degrees offered and the requirements.

For graduate students pursuing doctoral work, the Summer School provides French 0 and German 0 to help them prepare for the foreign language examinations. Please contact the Graduate School 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 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 by July 10, 1970.

General Education Program

The University's minimum requirement in general or liberal arts studies, incorporated in all undergraduate curricula, is known as the General Education Program. The courses which may be elected under the program are designed to acquaint the student with the basic concepts and methods of a number of academic disciplines and to provide a broad foundation upon which the entire educational experience can be correlated.

The requirement consists of 34 semester hours of credit distributed over six general areas: 9 credits in English composition and literature; 6 credits in history; 6 credits chosen from at least two fields of the social sciences; 7 credits in the biological and physical sciences; 3 credits in mathematics; 3 credits in fine arts or in philosophy. In order to permit the student the widest possible choice, a number of course options are available in each of the fields except English. In addition, 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.

16

Advanced Placement Program

Students entering the University from secondary school may obtain advanced placement and college credit on the basis of their performance in the College Board Advanced Placement examinations. These examinations are normally given to eligible high school seniors during the May preceding matriculation in college.

Questions about the program may be addressed to the Director of Admissions and Registrations, College Deans, or the Director of General Education. Additional information is presented in the publication An Adventure in Learning. For detailed information about examinations and procedures in taking them, write to the Director of Advanced Placement Program, College Entrance Examination Board, 475 Riverside Drive, New York, New York 10027.



General Information

Class Periods

Unless otherwise noted, classes during the 1970 summer session will meet on the following time schedule:

Day Classes	Evening Classes
8:00 — 9:20	M.W. 7:00-9:50 p.m.
9:30 — 10:50	T. Th. 7:00-9:50 p.m.
11:00 — 12:20	M.T.W.Th. 7:00-8:20 p.m.
12:30 — 1.50	M.T.Th. 8:30—9:50 p.m.
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.

All evening classes, according to schedule.

Definition of Resident and Non-Resident Student

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 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

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Auxiliary facilities fee\$	4.00
Summer Vehicle Registration Fee	5.00
(\$5.00 for first vehicle and \$1.00 each for additional vehicles	
in accordance with published regulations.)	
Recreation fee	3.00

Undergraduate Students

Tuition per credit hour\$22.0	0
Nonresident fee	0
Per session. Must be paid by all students who are not	
residents of Maryland.	
Application fee 10.0	0

Graduate Students

Application or matriculation fee	10.00
Payable only once upon admission. Every	
student must be admitted.	

Tuition per credit hour:

Resident Student\$38	.00
Non-resident Student	.00
Maryland Teacher 34	.00

A Maryland teacher is defined for fee assessment purposes as any full-time professional employee of a school or college located in the State of Maryland and accredited by the State Department of Education. The teacher must be currently under contract or on official leave for the purpose of taking full-time graduate work at the University of Maryland. Teachers enrolling in the summer session will be considered as being currently under contract provided that they have a valid contract for the academic year immediately following the summer session.

Contract status must be established anew at each registration by the submission of a letter, or other appropriate document, provided by the Board of Education of the city or county or principaly officer of the school or college in which the teacher is employed. If the letter or document is needed by the teacher for other purposes, he must supply a photocopy which will be retained by the registration clerk. The necessary letter, document, or photocopy must be provided at the time of registration.

						-	
Testing fee I	new	graduate	students	in	Education	only)	5.00

Miscellaneous Information

Late registration fee, \$20.00, charged on and after June 24-Graduate Language Examination Fee, \$10.00

- A fee of \$5.00 is charged for change in program after June 26. 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 10. All changes must be approved by the appropriate dean and filed in the Office of the Registrar.
- The graduation fee is \$10.00 for bachelor's and master's degrees, and \$50.00 for doctoral degrees. Students who apply after the end of the second week (after July 3) of a summer session will be required to wait for the next academic semester in order to obtain a diploma.
- Students enrolled in Applied Music will be assessed a \$40.00 fee for each course taken, in addition to regular credit hour fees.
- Fees for Auditors and courses taken for audit are the same as those charged for courses taken for credit at both the undergraduate and graduate levels.

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

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

All students will be given a 70% refund of Credit Hour Fees for courses dropped after the close of the official registration period but before 4:30 p.m. on June 26.

Living Accommodations and Food Service

Residence Hall accommodations are available only to students who are enrolled in the Summer School or authorized workshops and conferences. When students terminate their academic association with the University, they also

terminate their room contract. Listings of off campus rooms, apartments, and houses are available in the Off Campus 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. Each resident supplies 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 and residence regulations.

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

Regular Residence Halls	Double Occupancy	Single Occupancy
Six week session	\$72.00	\$ 96.00
Eight week session	\$96.00	\$128.00

Weekly rates of \$12.00 for double room and \$16.00 for single room 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 applicable room charge is payable in full 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 application and received a confirmation of room reservation can be assured that rooms are available for them upon their arrival. To secure an application for campus residence, please complete and return the Request for Housing Application found in the back of this Bulletin. 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. Applicants will be notified by mail after June 1 of the time and place to receive their room assignment. Do not call or write prior to this date. The applicant beginning classes on Wednesday, June 24, must claim his room in his residence hall by noon on that date. The applicant beginning classes at other times must claim his room by reporting to the University Housing Office between 8:30 a.m. and 4:30 p.m. Otherwise the specific room reservation will be cancelled.

The University residence halls will open for occupancy at 10:00 a.m. Sunday, June 21. Students will be expected to move out of the residence halls before 7:00 p.m. on the day after their classes end. The six week session ends on July 31, 1970. The eight week session ends on August 14, 1970.

Residence hall assignments for the summer in no way affect housing assignments for the following academic year. Room assignment is for the summer session only. If a student is to be a full-time, single, undergraduate student during the regular academic year and wishes to apply for campus residence, he must apply through the University Housing Office.

The following steps are suggested for shipping baggage: (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) upon arriving at the University, call for luggage at the Central Receiving Warehouse. The University does not make delivery to the residence halls.

Food service is available to all summer students in the University's Dining Halls. Meals will be served on a cash-pay-as-you-go basis only. During summer school, meals will be served seven-days each week, three meals a day with the exception of Sunday evening.

Full meals may be purchased on the a-la-carte system for \$1.00 for breakfast, \$1.50 for lunch, and \$1.75 for the evening meal and Sunday noon.

Student Health

The University Infirmary, located on the campus near the Student Union, provides medical service for the students in the summer session who are taking courses on the College Park Campus. Students who are ill should report promptly to the University Infirmary in person. Serious emergencies may be reported by phone to Ext. 3444, or if transportation for emergency is needed, call 3555 on campus phone or 454-3555 on a pay phone. Doctors' 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 doctors are on call for serious conditions after regular office hours.

Automobile Registration

All students are required to register their automobiles at the time of registration for classes. Students must bring their operators license and the state or District of Columbia automobile registration card containing the automobile tage number. Parking stickers for automobiles previously registered for the 1969-1970 academic year will be honored for the 1970 summer session. For automobiles operated by new students or non-registered cars operated by continuing students, there will be a registration fee. (See page 18.) Vehicles must be registered by the legal operator only.

For use of students, staff members, and employees, several parking lots are provided. Students may park in lots 1, 2, 3, 7, and 11 during the summer session with a registered car. All other lots are reserved for faculty and staff members. Visitor wells are reserved for visitors and guests between the hours of 8:00 a.m. to 5:00 p.m. The University Regulations forbid the parking of cars on any campus road. These regulations are enforced by the Campus Police Department.

Libraries

Libraries of the University are located on the College Park and Baltimore campuses. They consist of the general University Library (the Theodore R. McKeldin Library), the Engineering and Physical Science 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

1,000,000 cataloged volumes and currently receive more than 10,000 periodicals and newspapers.

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, 350,000 negatives and prints, 2,600 film strips, 6,000 slides, and thousands of phonograph records, 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.

Study carrels in the Theodore R. McKeldin Library are 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, for typing, and for copying 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 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

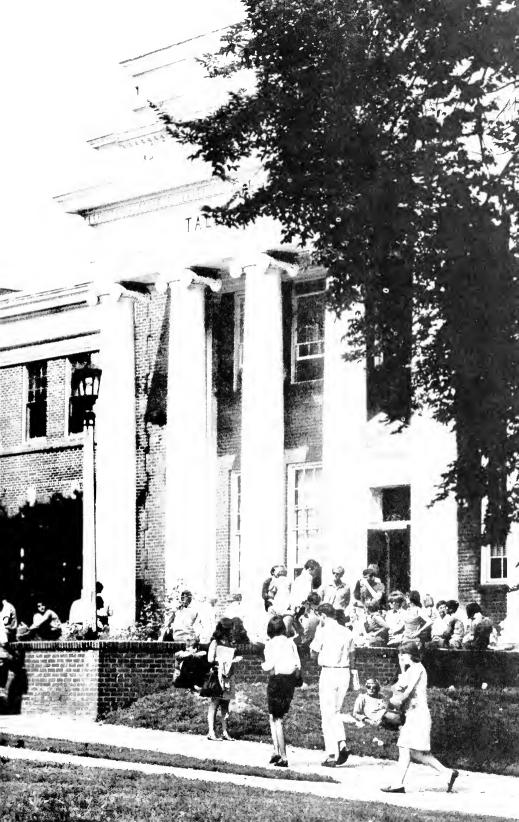
Detailed information concerning fees and expenses, scholarships and awards, student life, and other material of a general nature, may be found in the University publication titled An Adventure in Learning. This publication may be obtained on request from the Catalog Mailing Room, North Administration 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 2742

Professional Schools Located in Baltimore

Dean (College in which you are interested) The University of Maryland Baltimore, Maryland 21201



Special Summer Activities

As an integral part of its summer program, the University offers a Summer Lecture Series; Summer Festival of Fine Arts; Summer Recreation Program; institutes supported by the National Science Foundation, National Defense Education Act, and other granting organizations; and specialized workshops. Information about these events is provided below.

The Summer Lecture Series

A series of lectures for members of the University community is planned for the 1970 summer session. A committee of the faculty selects the theme for the lectures and invites the speakers, usually distinguished scholars, national leaders, or important state or University officials. The lectures thus become a contribution to the social and cultural offerings of the summer session. They are scheduled for the convenience of the students and faculty in air conditioned facilities on the College Park Campus.

1970 Summer Festival of Fine Arts

The 1970 Summer Festival of Fne Arts, under the direction of Dr. Paul Traver, will present for the campus and the community a series of programs in the fields of art, dance, drama, film, music, and television. Outstanding performers in these media will appear on the College Park Campus. To make it easier for students to attend the events, the majority of programs will be scheduled for evening and weekend hours and will be located in the air-conditioned J. Millard Tawes Fine Arts Center. The Festival will offer the summer community a culturally enriched atmosphere in which academic studies may be more pleasantly pursued.

Summer Recreation Program

To promote and coordinate a summer program of leisure time activities for the campus community, the Summer School sponsors a Summer Recreation Program directed by Dr. John Churchill. This program includes such activities as square dancing; recreational swimming; an art workshop; bridge, chess, and bowling tournaments; softball leagues; and a variety of others. The Summer Recreation Office also assists the promotion and coordination of programs offered by other units. Special services such as social hours or special swimming sessions may be requested by any group. Possession of a University of Maryland staff identification card or validated student identification card allows an individual to participate in the Summer Recreation Program. A group fee may be charged to cover unusual expenses.

Institutes and Workshops

Communication regarding institutes and workshops should be addressed to the director, as indicated, University of Maryland, College Park, Maryland 20742.

All workshop and institute students must be admitted to the University according to procedures described on pages 10 to 12.

INSTITUTES

National Science Foundation

Institute for College Teachers of Physics

Dr. Philip Connors, Department of Physics and Astronomy

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

Dr. James Fey, Mathematics Department

Institute for College Teachers of Mathematics

Dr. Ellen Correll, Mathematics Department

WORKSHOPS

COLLEGE OF ARTS AND SCIENCES

ARCHAEOLOGICAL FIELD SCHOOL (ANTH 194-294) 6 credits June 23-Aug. 30; daily, 8:00-5:00.

Mr. Robert Schuyler, Director.

The purpose of the field school is to train students in the basic field and laboratory techniques of archaeology and related anthropological research. Students will be involved in the excavation of contact—Indian and early colonial sites in southern Maryland and the laboratory analysis of the materials on campus. For further information, contact the director in the Department of Anthropology.

COLLEGE OF BUSINESS AND PUBLIC ADMINISTRATION

MANAGERIAL MATHEMATICS WORKSHOP (BSAD 000) 0 credit (billed for 3 credit hours) June 22-Aug. 14, T.-Th., 7:00-9:30 p.m.; Q-27.

Mr. Theodore Mattheiss, Director.

This non-credit course in basic mathematics is designed to present the mathematical concepts necessary for Economics, Managerial, and Systems Analysis. Included will be work on elementary matrix algebra, elementary probability theory, mathematical relationships, and optimization of functions of one variable (i.e., differential calculus).

COLLEGE OF EDUCATION

ANALYSIS AND MODIFICATION OF TEACHING BEHAVIOR (EDUC 189-G) 3 credits June 23-July 11; daily, arranged.

Dr. David Young, Director.

This workshop is designed for college and school personnel engaged in pre-service or in-service teacher education (including present and prospective caoperating teachers) and teachers interested in procedures for self-appraisal of performance. Participants will study and use systems for the analysis of teaching, e.g. Interaction Analysis and OScAR 5V; develop performance criteria for selected dimensions of teacher behavior; study and use procedures for modifying teaching behavior, e.g. Micro-teaching, video-taped models, simulation, video-tape feedback, and develop performance criteria for the supervisory act. Participants will teach (micro-teach) elementary and secondary pupils and practice supervisory skills during the workshop.

EDUCATION IN FAMILY FINANCE (EDSE 114-115) 6 credits

June 22-July 31; daily, 8:30-3:30; Q-27.

Prof. C. Raymond Anderson, Director.

The purpose of this workshop for secondary school teachers and administrators is to develop the ability and interest in teaching personal and family economic factors in existing secondary school courses. There will be lectures, discussions, group activities, field trips, and the preparation of teaching materials.

WORKSHOP IN EARLY CHILDHOOD EDUCATION FORM A NATIONAL PERSPECTIVE (EDEL 189-A) 3 credits

June 24-July 10; daily, 9:00-4:00.

Dr. Joan Moyer, Director.

Open to supervisors, administrators and college teachers in Early Childhood Education who wish to examine trends and problems in the field. Morning meetings will be held with early childhood leaders in the federal government and in Washington-based national associations, followed by afternoon critiques. Consent of the instructor required.

EUROPEAN TRAVEL SEMINAR (EDEL 189-K) 6 credits

June 24-Aug. 7.

Dr. Richard O'Donnell, Director.

The seminar offers an opportunity to travel and study aboard this summer. The tour will cover major cities, such as Oslo, Stockholm, Amsterdam, Nice, and Madrid, with visits to historic buildings, leading museums and galleries, as well as attendance at concerts, 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.

HUMAN DEVELOPMENT-Two-Week Workshops

Dr. Agnes Hatfield, Director.

CHILD STUDY LEADERS (EDHD 189-A) 2 credits

June 22-July 3; daily. 8:00-3:00.

This workshop is designed to prepare teachers and selected personnel for leadership roles in the in-service education program on the Direct Study of Children and Youth now in operation in 16 Maryland school systems.

APPLICATION OF HUMAN DEVELOPMENT PRINCIPLES (EDHD 189-C) 2 credits July 6-July 19; daily, 8:00-3:00; J-111.

The purpose of this workshop is to explore the meanings and possible implementation of Human Development concepts in local school settings.

ACTION RESEARCH IN HUMAN DEVELOPMENT (EDHD 189-E) 2 credits Aug. 3-Aug. 14; doily, 8:00-3:00; J-111.

The purpose of this workshop is to develop specific projects of experimentation at the school building area, and county levels relating to Human Development concepts.

SCIENTIFIC CONCEPTS IN HUMAN DEVELOPMENT (EDHD 112-5, 113, 212-5, 213) 6 credits

June 22-July 31; daily, 8:00-3:00.

This workshop is designed for an extended opportunity to study human development concepts, behavorial analyses, in-service education programs, and development implications of current knowledge for school programs.

HUMAN RELATIONS IN EDUCATIONAL ADMINISTRATION (EDAD 189-A) 6 credits June 24-July 31; daily, 9:00-3:00; John F. Kennedy Senior High School.

Dr. Clarence A. Newell, Director.

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 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 time, the director of the workshop will make the final decision.

INSTRUCTIONAL MATERIALS (EDUC 189-B) 3 credits

June 24-July 14; daily, 1:00-4:30; Educational Technology Center, College of Education staff.

This workshop will give teachers, librarians, and administrators the opportunity to work on problems in the selection, organization, and utilization of instructional materials in school programs. It also covers changes in education as they affect the Instructional Materials Program, with emphasis on the newer media of instruction as well as traditional printed materials.

INTERDISCIPLINARY APPROACH TO CONSUMER EDUCATION FOR LOW-INCOME FAMILIES (EDSE 189-M) (3)

June 24-Aug. 15; daily, 9:30-3:30; arranged.

Dr. Kinsey Green, Director.

SUPERVISION OF STUDENT TEACHERS (EDUC 189-A) 3 credits

June 14-July 15, arranged.

Mr. James F. Collins, Director.

This workshop is planned for experienced personnel who are interested in studying the characteristics of good student teaching programs; the roles of the various cooperating personnel such as the cooperating teacher, the college supervisor, the principal, the academic supervisor, etc.; and an analysis of teaching.

TEAM TEACHING (EDSE 189-D) 3 credits

June 24-July 10; daily, 9:30-3:30; 00-225.

Staff.

This workshop is designed to analyze the theoretical assumptions behind the team teaching organizational pattern. Teachers and administrators will also have an opportunity to develop team teaching projects to be implemented in their local schools. There will be lectures by the director and distinguished consultants, films, outside visits, development of personal team teaching projects, etc.

TRADE ADVANCEMENT WORKSHOP (EDIN 189-R) 1-6 credits

June 25-Aug. 14; arranged.

Dr. Joseph Luetemeyer, Director.

This workshop is designed for both experienced and prospective trade and industrial teachers who meet the state certification requirements. The purpose of this workshop is to increase the technical competence of trade and industrial teachers by means of their attendance at approved technical training centers. Specific emphasis in this course will be twofold: first, on the student's development and organization of instructional materials derived from the training he received; and secondly, on his application of these instructional materials to trade and industrial education programs at the secondary school and junior college level. Approval to enroll in this workshop must be obtained from the Department of Industrial Education prior to registration.

VOCATIONAL EDUCATION (EDIN 189-D) 1 credit

Section 1-June 24-Aug. 12 W. 9:30; P-210.

Section 2-June 24-Aug. 12 W. 1:30; P-210.

WORKSHOP FOR TEACHERS OF DISADVANTAGED YOUTH: TEACHING STRATEGIES FOR DISADVANTAGED CHILDREN (EDUC 189-M) 3 credits

June 24-July 15; arranged.

Dr. Chandler Barbour, Director,

This workshop is designed for elementary school teachers associated or concerned with disadvantaged children, who are interested in the identification and designing of teaching strategies. Participants will be involved in planning objectives, designing strategies, and in rationalizing particular teaching techniques that will insure success for children in educational experience. Registration is by consent of the director.

WORKSHOP IN TECHNOLOGICAL INNOVATION IN BUSINESS EDUCATION (EDSE 189-J)

June 23-July 11; daily, 9:00-3:00; Q-19.

Dr. Martha L. Mead, Director.

The purpose of this workshop is to give business teachers an opportunity to become familiar with new media and methods of instruction in the office occupations area and to have actual experience working with new technological devices unique to this area.

COLLEGE OF HOME ECONOMICS

FAMILY LIFE AT THE SECONDARY LEVEL (HOEC 190 and HOEC 290) 3 credits July 13-July 31; daily, 9:00-12:30; Home Management Center.

Dr. William D. Brown, Director,

This workshop is designed to aid secondary teachers in relating family life concepts, and to explore techniques and tools useful in secondary family life programs. It will stress a holistic approach in family life education.

SPECIAL STUDIES IN CLOTHING (CLTH 220) 3 credits

June 24-July 15; daily, 9:00-12:30.

Miss Eileen Heagney, Director,

This workshop will be open to teachers who will study space saving techniques applied to the teaching of Clothing production through miniaturization.

COLLEGE OF PHYSICAL EDUCATION, RECREATION, AND HEALTH

ADVANCEMENTS IN HEALTH SCIENCE AND HEALTH EDUCATION

(HLTH-189) 3 or 6 credits

June 24-Aug. 2; daily, 8:00-11:00 a.m.; 2071.

Dr. Herbert L. Jones, and Mr. William C. Sechrist, Co-Directors.

The purpose of the Institute is to update the participants (teachers, nurses, administrators, etc.) with information concerning the health and health education trends and developments. Ideas and dialogue from and with experts in the field will help improve content and method for the participant. Specific areas will include high level wellness, mental health, consumer health, sex education, and chronic degenerative disease.

Guest speakers and discussion leaders will be specialists from the National Institutes of Health, other branches of the United States Public Health Service, Office of Education, public health departments, and voluntary health agencies. A limited number of tuition scholarships are available from voluntary health agencies in Maryland and Washington, D. C.

CURRENT ISSUES IN HEALTH EDUCATION (HLTH 189K) 3 or 6 credits June 22-July 31; daily, 9:00-3:00; arranged.

Dr. Daniel Leviton and Mrs. Doris Sands, Co-Directors.

This course would be set up to include three separate parts. The first ten days would deal with the area of Death Education and Suicide Prevention; the second ten days would receive a concentration in the area of drug education and the third segment dealing with Human Sex and Sex Education; Students would be allowed to enroll in any of the three sections and receive three credits. The maximum for any one student would be six credit hours received by enrolling in two of the three areas.

OUTDOOR EDUCATION WORKSHOP (RECR 184) 6 credits

June 24-Aug. 2; daily, 9:00-3:00 and arranged.

Dr. George Elev, Director.

The Outdoor Education Workshop, offered in cooperation with and on behalf of the local and state education authorities, will present the philosophy, activities, materials, and methods recommended for modern outdoor education practice. Course content will involve group discussion and projects, practice sessions both on and off campus, trips, presentations by visiting specialists, and preparation and use of visual aids and curricular materials. Activity areas will range through the sciences and outdoor recreational skills. At least one week will be spent in a camp setting. Laboratory and field trip fees will be in addition to regular credit hour fees. Students in the College of Education who plan to apply this credit toward a degree program should get the authorization of their advisers.

PHYSICAL FITNESS WORKSHOP (PHED 189) 3-6 credits

June 22-July 31; daily, 8:00-11:00 and arranged.

Dr. D. Laine' Santa Maria, Director.

The purpose of this workshop will be an identification and assessment of physical fitness procedures and programs.



Course Offerings

Unless otherwise noted, classes which meet daily run for six weeks, June 24-July 31, and classes which meet on the M.T.Th.F. schedule run for eight weeks, June 25-August 14.

An "S" before a course number denotes that the course is offered in the summer session 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 due to low enrollment. In general, freshman and sophomore courses will not be held for classes smaller than 20. Minimum enrollments for upper level undergraduate courses and graduate courses will be 15 and 10 respectively.

AGRICULTURE

AGRICULTURAL ECONOMICS

	Special Problems. (1-2) Not for graduate credit.	(Staff)
AGEC 301. Arranged.	Special Problems in Agricultural Economics. (1-2)	(Staff)
AGEC 399. Arranged.	Thesis Research. (1-6)	(Staff)
AGEC 499. Arranged.	Dissertation Research. (1-6)	(Staff)

AGRICULTURAL ENGINEERING

AGEN 189. Senior Problem. (2)
Prerequisite, approval of department. Arranged. (Staff)

AGEN 198. Special Problems in Farm Mechanics. (1-3)
Prerequisite, approval of department. Not acceptable for majors in Agricultural Engineering. Problems assigned in proportion to amount of credit.

Arranged. (Gienger)

AGEN 301. Special Problems in Agricultural and Aquacultural Engineering. (1-6)
Arranged. (Staff)

AGEN 399. Thesis Research. (1-6) Arranged.	(6. (1)
-	(Staff)
AGEN 499. Dissertation Research. (1-6) Arranged.	(Staff)
AGRICULTURAL AND EXTENSION EDUCATION	
RLED 121. Directed Experience in Extension Education. (1-5)	
Prerequisite, satisfactory academic average and permission of instructor.	
Arranged.	(Ryden)
RLED 170, 172. Conservation of Natural Resources. (3,3) Daily, arranged; E-103. Travel fee \$35.00—In addition to the regular credit Courses taken concurrently in summer session.	hour fees. (Staff)
RLED 180, 181. Critique in Rural Education. (1,1) Prerequisite, approval of staff. Arranged.	(Staff)
RLED 198. Special Problems. (1-3)	
Prerequisite, approval of staff. Arranged.	(Staff)
RLED 207, 208. Special Topics in Rural Education. (2,2)	
Arranged. Permission of instructor.	(Staff)
RLED 225. Program Development in Extension Education. (2) Prerequisite, RLED 150 or equivalent. Arranged.	(Ryden)
RLED 301. Special Problems. (1-3) Prerequisite, approval of staff. Arranged.	(Staff)
	(3(011)
RLED 399. Thesis Research. (1-6) Arranged.	(Staff)
RLED 499. Dissertation Research. (1-6)	,,
Arranged.	(Staff)
AGRONOMY	
AGRO 198. Special Problems in Agronomy. (1-3)	
Prerequisites, AGRO 10, 107, 108, or permission of instructor.	
Arranged.	(Staff)
AGRO 208. Research Methods. (2)	
Prerequisite, approval of staff. Arranged.	(Staff)
AGRO 399. Thesis Research. (1-6)	
Arranged.	(Staff)
AGRO 499. Dissertation Research. (1-6)	
Arranged.	(Staff)
GEOL 001. Geology. (3)	
Section 1 — M.T.Th.F., 9:30; E-201.	(Staff)
Section 2 — M.T.Th.F., 11:00; E-201. Section 3 — June 25-Aug. 13; M.W., 7:00-9:50 p.m.; E-201.	(Staff) (Staff)
2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2	(3(0)1)
ANIMAL SCIENCE	
ANSC 198. Special Problems in Animal Science. (1-2)	
Prerequisite, approval of staff. Arranged.	(Staff)

ANSC 263. Poultry Nutrition Laboratory. (2)
Arranged. (Creek)

ANSC 301. Special Problems in Animal Science. (1-2)
Prerequisite, approval of staff. Work assigned in proportion to amount of credit.
Arranged. (Staff)

ANSC 399. Thesis Research. (1-6)
Arranged. (Staff)

ANSC 499. Dissertation Research. (1-6)
Arranged. (Staff)

BOTANY

BOTN 001. General Botany. (4) Lecture, M.T.Th.F., 8:00; E-001. Laboratory Section 1 — M.T.Th.F., 9:00-10:50; E-244.

Laboratory Section 1 — M.T.Th.F., 9:00-10:50; E-244.

Laboratory Section 2 — M.T.Th.F., 11:00-12:50; E-244.

Laboratory Section 3 — M.T.Th.F., 12:30- 2:20; E-247. (Harrison)

BOTN 101. Plant Physiology. (4)

June 25-Aug. 14; Lecture M.T.Th.F., 8:00; E-206. Laboratory, M.T.Th.F., 9:00-11:50;

Prerequisites, BOTN 001 and General Chemistry or their equivalents. Open only to participants in the N.S.F. Institute. (Lockard)

BOTN 111. Plant Anatomy. (3) Lecture, T.Th., 9:00; E-211. Laboratory, M.T.Th.F., 10:00-11:50; E-211.

(Rappleve)

BOTN 136. Plants and Mankind. (2)
Prerequisite, BOTN 001 or equivalent. Open only to participants in the N.S.F. Institute.
M.T.Th.F., 1:00-1:50; E-001. (Rappleye)

BOTN 151S. Teaching Methods in Botany. (2)
Prerequisite, BOTN 001, or equivalent. Open only to participants in the N.F.S. Institute.
Demonstrations M.T.Th.F., 1:00-2:50; E-251. (Mencfee)

BOTN 171. Marine Plant Biology. (4)
Prerequisite, BOTN 001 or General Biology, Organic Chemistry, or the consent of the instructor. To be offered at the Chesapeake Biological Laboratory, Solomons, Maryland.
Enrollment is limited to 15 students. Arranged. (Krauss, Staff)

BOTN 172. Special Problems in Marine Research. (1-3)
Prerequisites, BOTN 001 or General Biology plus Organic Chemistry, or consent of instructor. Recommended concurrent or previous enrollment in Marine Plant Biology (BOTN 171). To be offered at the Chesapeake Biological Laboratory, Solomons, Maryland. Enrollment is limited to 10 students. Arranged. (Krauss, Staff)

BOTN 195. Tutorial Readings in Botany. (Honors Course) (2 or 3) See College of Agriculture Bulletin for details. Arranged.

BOTN 196. Research Problems in Botany. (Honors Course) (2 or 3)
Prerequisite, BOTN 195. See College of Agriculture Bulletin for details. Arranged.

BOTN 1995. Seminar for N.S.F.: Summer Institute for Biology Teachers. (2)
Open only to participants in the N.S.F. Institute for Biology Teachers. Two or threehour sessions, W., 9:00 and 2:00; or all day field trips. (Menefee, Staff)

BOTN 399. Thesis Research. (1-6) Arranged.	(C+~{{{}}})
BOTN 499. Dissertation Research. (1-6)	(Staff) (Staff)
ENTOMOLOGY	
ENTM 005. Insects. (3) Lectures, M.T.Th.F., 9:00; O-101.	(Staff)
ENTM \$121. Entomology for Science Teachers. (4) Lecture, M.T.Th.F., 8:00; O-101. Laboratory, M.T.Th.F., 9:00; O-200. Open or participants in the N.S.F. Institute. (Davi	nly to ridson)
ENTM 198. Special Problems. (1-3) Credit and prerequisites determined by the department. Arranged ((Staff)
ENTM 301. Advanced Entomology. (1-6) Credit and prerequisites determined by the department. Arranged.	(Staff)
ENTM 399. Thesis Research. (1-6) Arranged. ((Staff)
ENTM 499. Dissertation Research. (1-6) Arranged.	(Staff)
FOOD SCIENCE	
FDSC 198. Special Problems in Food Science. (1-3) Prerequisite, approval of staff. Arranged.	(Staff)
FDSC 301. Special Problems in Food Science. (1-4) Credit according to time scheduled and magnitude of problem. Prerequisite, CHEN and permission of faculty. Arranged.	M 161 (Staff)
FDSC 399. Thesis Research. (1-6) Arranged.	
FDSC 499. Dissertation Research. (1-6)	(Staff)
Annana	Staff)
HORTICULTURE	
HORT 198. Special Problems. (2-4) Arranged. For students majoring in Horticulture or Botany.	Staff)
HORT 399. Thesis Research. (1-6) Arranged.	Staff)
HORT 499. Dissertation Research. (1-6) Arranged.	Staff)
ARTS AND SCIENCES	
AMERICAN STUDIES	
AMST 137. Readings in American Studies. (3) M.T.Th.F., 9:30; A-50.	Beall)

AMST 201. Seminar in American Studies. (3) June 25-Aug. 13; M.Th., 7:00 p.m.; A-50.	(Beall)
AMST 399. Thesis Research. (1-6) Arranged.	(Staff)
AMST 499. Dissertation Research. (1-6) Arranged.	(Staff)
ANTHROPOLOGY	
ANTH 001. Introduction to Anthropology: Archaeology and Phy	sical
Anthropology. (3) Section 1, M.T.Th.F., 9:30; TH-111. Section 2, M.T.Th.F., 11:00; TH-117.	(Anderson) (Hoffman)
ANTH 002. Introduction to Anthropology: Cultural Anthropology Linguistics. (3)	and
M.T.Th.F., 9:30; TH-117.	(McDowell)
ANTH 101. Cultural Anthropolgy: Principles and Processes. (3) M.T.Th.F., 11:00; TH-111.	(Anderson)
ANTH 102. Cultural Anthropology: World Ethnography. (3) M.T.Th.F., 12:30; TH-111.	(Hoffman)
ANTH 151. Archaeology of the New World. (3) M.T.Th.F., 8:00; TH-111.	(McDowell)
ANTH 191. Research Problems. (1-6) Arranged.	(Schuyler)
ANTH 194, 294. Archaeological Field School. (6) June 23 to Aug. 30; daily, 8-5.	(Schuyler)
ANTH 291. Special Problems in Anthropology. (1-6) Arranged.	(Schuyler)
ANTH 399. Thesis Research. (1-6) Arranged.	(Schuyler)
ART	
ART 010. Introduction To Art. (3) M.T.Th.F., 8:00; NN-320.	(Staff)
ART 012. Design I. (3) June 25-Aug. 15.	
Section 1 — Daily, 8:00-10:00; NN-133. Section 2 — Daily, 10:00-12:00; NN-133.	(Staff) (Staff)
ART 016. Drawing I. (3) June 25-Aug. 15.	
Section 1 — Daily, 10:00-12:00; NN-332. Section 2 — Daily, 1:00-3:00; NN-332.	(Staff) (Staff)
ART 017. Painting I. (3) June 25-Aug. 15.	
Daily, 10:00-12:00; NN-230.	(Dillinger)

ART 026. Drawing II. (3) June 25-Aug. 15; Daily, 10:00-12:00; NN-232.	(Staff)
ART 040. Fundamentals of Art Education. (3) Section 1 — M.T.Th.F., 8:00; NN-330. Section 2 — M.T.Th.F., 9:30; NN-330. Section 3 — M.T.Th.F., 8:00; NN-328. Section 4 — M.T.Th.F., 9:30; NN-328.	(Lembach) (Lembach) (Staff) (Staff)
ART 060. History of Art. (3) M.T.Th.F., 8:00; NN-214.	(Denny)
ART 061. History of Art. (3) M.T.Th.F., 12:30; NN-214.	(Staff)
ART 117. Painting II. (3) June 25-Aug. 15; Daily, 10:00-12:00; NN-224.	(Staff)
ART 118. Sculpture I. (3) June 25-Aug. 15. Section 1 — Daily, 10:00-12:00; NN-139. Section 2 — Daily, 1:00-3:00; NN-139.	(Staff) (Freeny)
ART 119. Printmaking I. (3) June 25-Aug. 15; Daily, 8:00-10.00; FF-25.	(Forbes)
ART 126. Drawing III. (3) June 25-Aug. 15; Daily, 10:00-12:00; NN-232.	(Staff)
ART 127. Painting III. (3) June 25-Aug. 15; Daily, 10:00-12:00; NN-224.	(Staff)
ART 128B. Sculpture II. (3) June 25-Aug. 15; Daily, 10:00-12:00; NN-137.	(Freeny)
ART 129. Printmaking II. (3) June 25-Aug. 15; Daily, 10:00-12:00; FF-22.	(Forbes)
ART 138. Sculpture III. (3) June 25-Aug. 15; Daily, 1:00-3:00; NN-137.	(Freeny)
ART 139. Printmaking III. (3) June 25-Aug. 15; Daily, 10:00-12:00; FF-22.	(Forbes)
ART 166. Medieval Art. (3) M.T.Th.F., 9:30; NN-214.	(Denny)
ART 192. Directed Studies In Studio Art. (2-3) Arranged.	(Staff)
ART 193. Directed Studies In Studio Art. (2-3) Arranged.	(Staff)
ART 194. Directed Studies In Art History. (2-3) Arranged.	(Staff)
ART 195. Directed Studies In Art History. (2-3) Arranged.	(Staff)
ART 221. Materials and Techniques in Sculpture. (3) June 25-Aug. 15; Daily, 10:00-12:00; NN-137.	(Freeny)

ART 292. Directed Graduate Studies In Studio Art. (3)

ART 292. Directed Graduate Studies In Studio Art. (3) Arranged.	(Staff)
ART 293. Directed Graduate Studies In Studio Art. (3) Arranged.	(Staff)
ART 294. Directed Graduate Studies In Art History. (3) Arranged.	(Staff)
ART 295. Directed Graduate Studies In Art History. (3) Arranged.	(Staff)
ART 399. Thesis Research. (1-6) Arranged.	(Staff)
ART 499. Dissertation Research. (1-6) Arranged.	(Staff)
CHEMISTRY	
CHEM 001. General Chemistry. (4) Prerequisite, one year high school algebra or equivalent. Four lectures, two reci and two three-hour laboratory periods per week. Lecture, M.T.Th.F., 11:00-11:50; Recitation, T.F., 1:00; C-079, C-080; Laboratory, M.Th., 1:00; C-117, C-118.	
CHEM 003. General Chemistry. (4) Prerequisite, CHEM 001 or equivalent. Four lectures, two recitations, and two thre laboratory periods per week. Lecture, M.T.Th.F., 11:00-11:50; C-130; Recitation 1:00; C-081, C-090, C-098; Laboratory, M.Th., 1:00; C-119, C-120.	
CHEM 019. Elements of Quantitative Analysis. (4) Prerequisite, CHEM 003. Four lectures and four three-hour laboratory periods pe Lecture, M.T.Th.F., 12:30-1:20; C-132; Laboratory, M.T.Th.F., 8:00; C-306.	r week. (Staff)
CHEM 035. Elementary Organic Chemistry. (2) Prerequisite, CHEM 003, 005, or equivalent. Four lectures per week. M. 12:30-1:20; C-097.	T.Th.F., (Staff)
CHEM 036. Elementary Organic Laboratory. (2) Prerequisite, CHEM 003, 005, or equivalent. Four three-hour laboratory periodeek. M.T.Th.F., 8:00; C-205.	ods per (Staff)
CHEM 037. Elementary Organic Chemistry. (2) Prerequisite, CHEM 035. Four lectures per week. M.T.Th.F., 12:30-1:20; C-093.	(Staff)
CHEM 038. Elementary Organic Laboratory. (2) Prerequisite, CHEM 036. Four three-hour laboratory periods per week. M. 8:00; C-202, C-204.	T.Th.F., (Staff)
CHEM 399. Thesis Research. (1-6) Arranged.	(Staff)
CHEM 499. Dissertation Research. (1-6) Arranged.	(Staff)
CLASSICAL LANGUAGES AND LITERATURE	
LATN 102. Tacitus. (3) M.T.Th.F., 9:30; T-102.	(Avery)

37

COMPARATIVE LITERATURE

- CMLT 101. Introductory Survey of Comparative Literature. (3)
 Prerequisite, ENGL 004 or equivalent. M.T.Th.F., 8:00: A-43. (Schaumann)
- CMLT 145. Major Contemporary Authors. (3)
 Prerequisite, ENGL 004 or equivalent, M.T.Th.F., 11:00; A-43. (Swigger)
- CMLT 399. Thesis Research. (1-6)
 Arranged. (Staff)
- CMLT 499. Dissertation Research. (1-6)
 Arranged. (Staff)

COMPUTER SCIENCE

- CMSC 012. Introductory Algorithmic Methods. (3)
 Prerequisite, MATH 011 or equivalent. June 24-August 14; daily, 8:00; MM-204.
 (Williams)
- CMSC 020. Elementary Algorithmic Analysis. (3)

 Prerequisite, MATH 20 or equivalent or concurrent registration. June 24-August 14.

 Section 1 Daily, 9:30; MM-216. (Lindamood)

 Section 2 Daily, 11:00; MM-207. (Feldman)
- CMSC 100. Language and Structure of Computers. (3)
 Prerequisite, CMSC 20 or equivalent. June 24-August 14; daily, 9:30; MM-204.
 (Hangni)
- CMSC 102. Introduction to Discrete Structures. (3)
 Prerequisite, CMSC 20 or equivalent. M.T.Th.F., 8:00; MM-207. This course is the same as ENEE 102. (Feldman)
- CMSC 140. Structure of Programming Languages. (3)
 Prerequisite, CMSC 100 or equivalent. M.T.Th.F., 8:00; MM-230. (Hanani)
- CMSC 150. Data and Storage Structures. (3)
 Prerequisites, CMSC 100 and CMSC 102, or equivalent. M.T.Th.F., 11:00; MM-230.
 (Pfaltz)
- CMSC 160. Computer Organization. (3)
 Prerequisite, CMSC 100 or equivalent. M.T.Th.F., 9:30; MM-241. (Park)
- CMSC 190A. Special Problems in Computer Science. (1-3)
 Arranged. (Staff)
- CMSC 290A. Advanced Topics in Computer Science. (3)
 Arranged. (Staff)
- CMSC 399. Thesis Research. (1-6)
 Arranged. (Staff)
- CMSC 499. Dissertation Research. (1-6)
 Arranged. (Staff)

DANCE

DANC 032. Introduction to Dance. (3)
Daily, 11:00; FF-21. (Staff)

38

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DANC 052.
                Dance Techniques.(2)
    Daily, 9:30; W-200.
                                                                                (Staff)
ENGLISH
ENGL 001. Composition. (3)
    Section 1 — M.T.Th.F., 8:00; RR-17.
    Section 2 - M.T.Th.F., 8:00; RR-15.
    Section 3 - M.T.Th.F., 9:30; A-166.
    Section 4 - M.T.Th.F., 11:00; A-50.
    Section 5 — M.T.Th.F., 11:00; A-164.
    Section 6 — M.T.Th.F., 12:30; RR-17.
    Section 7 — M.W.,
                          7:00-9:50 p.m.; RR-19.
                                                                                 (Staff)
ENGL 003.
               World Literature. (3)
    Section 1 - M.T.Th.F., 8:00; A-49.
    Section 2 - M.T.Th.F., 8:00; A-159.
    Section 3 - M.T.Th.F., 9:30; A-161.
    Section 4 — M.T.Th.F., 9:30; A-164.
Section 5 — M.T.Th.F., 11:00; A-161.
    Section 6 — M.T.Th.F., 12:30; RR-24.
    Section 7 — T.Th.,
                         7:00-9:50 p.m.; RR-19.
                                                                                 (Staff)
ENGL 004.
               World Literature. (3)
    Section 1 — M.T.Th.F., 8:00; A-48.
    Section 2 — M.T.Th.F., 9:30; A-159.
    Section 3 - M.T.Th.F., 11:00; A-49.
    Section 4 - M.T.Th.F., 11:00; A-159.
    Section 5 — M.T.Th.F., 12:30; RR-23.
    Section 6 — M.W.,
                           7:00-9:50 p.m.; RR-20.
                                                                                 (Staff)
ENGL 008.
                Introduction to English Grammar. (3)
     Prerequisite, ENGL 004 or equivalent. M.T.Th.F., 8:00; RR-20.
                                                                                (James)
ENGL 101.
               History of the English Language. (3)
     Prerequisite, ENGL 004 or equivalent.
     Section 1 - M.T.Th.F., 11:00; RR5.
                                                                                 (Robb)
     Section 2 — M.T.Th.F., 11:00; RR-3
                                                                               (Herman)
ENGL 104.
                Chaucer. (3)
     Prerequisite, ENGL 004 or equivalent. M.T.Th.F., 9:30; A-49.
                                                                            (Rutherford)
                Major Works of Shakespeare. (3)
     Prerequisite, ENGL 004 or equivalent. M.T.Th.F., 11:00; A-48.
                                                                             (D. Smith)
ENGL 121.
                Milton. (3)
     Prerequisite, ENGL 004 or equivalent. M.T.Th.F., 8:00; RR-115.
                                                                             (Hamilton)
                Literature of the Eighteenth Century. (3)
     Prerequisite, ENGL 004 or equivalent. M.T.Th.F., 8:00; RR-22.
                                                                                (Tyson)
 ENGL 139.
                The English Novel. (3)
     Prerequisite, ENGL 004 or equivalent. M.T.Th.F., 11:00; RR-22.
                                                                                 (Ward)
                The English Novel. (3)
     Prerequisite, ENGL 004 or equivalent. M.T.Th.F., 9:30; A-43.
                                                                                (Kleine)
 ENGL 143.
                Modern Poetry. (3)
     Prerequisite, ENGL 004 or equivalent. M.T.Th.F., 8:00; RR-114.
                                                                           (VanEgmond)
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145. Modern Novel. (3) requisite, ENGL 004 or equivalent. M.T.Th.F., 9:30; RR-5.	(Lawson)
150. American Literature, 1810 to 1865. (3) requisite, ENGL 004 or equivalent. M.T.Th.F., 9:30; A-48.	(Carey)
151. American Literature Since 1865. (3) requisite, ENGL 004 or equivalent. tion 1 — M.T.Th.F., 11:00; RR-115. tion 2 — M.T.Th.F., 11:00; RR-20.	(Bryer) (Dunn)
155. Major American Writers. (3) requisite, ENGL 004 or equivalent. M.T.Th.F., 8:00; RR-113.	(Gravely)
156. Major American Writers. (3) requisite, ENGL 004 or equivalent. M.T.Th.F., 9:30; RR-114.	(Lutwack)
157. Folklore. (3) requisite, ENGL 004 or equivalent. tion 1 — M.T.Th.F., 11:00; RR-113. tion 2 — M.T.Th.F., 11:00; RR-114.	(Birdsall) (Fry)
170. Creative Writing. (3) requisite, ENGL 004 or equivalent. M.T.Th.F., 9:30; RR-113.	(Whittemore)
201. Bibliography and Methods. (3) tion 1 — M.Th., 4:00-6:00; RR-15. tion 2 — M.Th., 7:00-9:00 p.m.; RR-17.	(Cooper) (Smith)
206. Seminar in Renaissance Literature. (3) 7., 1:30-3:30; A-28.	(Zeeveld)
211. Seminar in Seventeenth Century Literature. (3) Th., 1:30-3:30; RR-15.	(Murphy)
212. Seminar in Eighteenth Century Literature. (3) F., 1:30-3:30; RR-3.	(Myers)
214. Seminar in Nineteenth Century Literature. (3) Th., 7:00-9:00 p.m.; RR-15.	(Kinnaird)
226. Seminar in American Literature. (3) Th., 4:00-6:00; A-28.	(Hovey)
241. Studies in Twentieth Century Literature. (3) Th., 1:30-3:30; RR-7.	(Bode)
242. Studies in Twentieth Century Literature. (3) .Th., 7:00-9:00 p.m.; RR-7.	(Jellema)
265. Special Studies in English Literature, Victorian Lite. Th., 7:00-9:00 p.m.; RR-3.	erature. (3) (Pitts)
. 266. Special Studies in American Literature. (3) .Th., 7:00-9:00; RR-5.	(Hovey)
. 399. Thesis Research. (1-6) rranged.	(Staff)
. 499. Dissertation Research. (1-6) rranged.	(Staff)

CHINESE

CHIN 001, 002. Elementary Chinese. (3, 3)

CHIN 001: June 25-July 18; CHIN 002: July 21-Aug. 15. Registration for both CHIN 001 and/or 002 on June 23 or 24 as separate courses. This course meets three times daily; first lecture period 8:00-9:00; drill 9:30-10:20; second lecture period 11:00-12:00; G-307. A student enrolled in CHIN 001 and/or 002 may not take any other course in the summer session.

FRENCH AND ITALIAN LANGUAGE AND LITERATURE

FREN 000. Elementary French For Graduate Students. (Audit)
This course is billed for three credit hours. M.T.Th.F., 8:00-9:15; LL-12.

(Lloyd-Jones)

FREN 001, 002. Elementary French. (3, 3)

FREN 001: June 24-July 17; FREN 002: July 20-August 14. Register for both FREN 001 and/or 002 on June 22-23 as separate courses. This course meets four hours M.T.Th.F.; Lecture periods: 9:00-10:00; 10:00-11:00; 12:00-1:00; plus one drill period: 8:00-9:00 or 11:00-12:00. A student enrolled in FREN 001 and/or FREN 002 may not take any other course in the summer session. LL-1. (Lapov)

FREN 006, 007. Intermediate French. (3, 3)

FREN 006: June 24-July 17; FREN 007: July 20-August 14. Register for both FREN 006 and/or 007 on June 22-23 as separate courses. This course meets three hours M.T.Th.F.: first lecture period: 8:00-9:00; second lecture period: 9:00-10:00; third lecture period: 11:00-12:00. A student enrolled in FREN 006 and/or 007 may not take any other course in the summer session.

Section 1 — LL-220.

(Bondurant) (Lundy)

Section 2 — LL-202.

FREN 012. Conversation and Composition. (3) M.T.Th.F., 9:30-10:45; LL-106.

(Becker)

FREN 103. Advanced Composition. (3) M.T.Th.F., 11:00-12:15; T-203.

FREN 107. Introduction To Medieval Literature. (3) M.T.Th.F., 9:30-10:45; T-203.

(Lloyd-Jones)

FREN 171. French Civilization. (3) M.T.Th.F., 8:00-9:15; RR 3.

(Couffignal)

FREN 291. Symbolisme et decadence de Mallarme a Huysmans. (3) M.Th., 1:00-3:00; RR-3. (Couffignal)

ITAL 001, 002. Elementary Italian. (3, 3)

ITAL 001: June 24-July 17; ITAL 002: July 20-August 14. Registration for both ITAL 001 and/or 002 on June 22-23 as separate courses. This course meets four hours M.T.Th.F.: Lecture periods: 9:00-10:00; 10:00-11:00; 12:00-1:00; plus one drill period: 8:00-9:00 or 11:00-12:00. A student enrolled in ITAL 001 and/or 002 may not take any other course in the summer session. LL-13.

ITAL 006, 007. Intermediate Italian. (3, 3)

ITAL 006: June 24-July 17; ITAL 007: July 20-August 14. Registration for both ITAL 006 and/or 007 on June 22-23 as separate courses. This course meets three hours M.T.Th.F.: first lecture period: 8:00-9:00; second lecture period: 9:00-10:00; third lecture period: 11:00-12:00. A student enrolled in ITAL 006 and/or 007 may not take any other course in the summer session. LL-3. (Staff)

GERMANIC AND SLAVIC LANGUAGES AND LITERATURES

GERM 000. Elementary German For Graduate Students, (Audit)

This course is billed for three credit hours.

Section 1 - Daily, 8:00; LL-204.

(Dobert)

Section 2 - Daily, 8:00: LL-201.

(Hahn)

GERM 001, 002. Elementary German, (3, 3)

GERM 001: June 24-July 17; GERM 002: July 20-August 14. Register for both GERM 001 and/or 002 on June 22 or 23 as separate courses. This course meets three times daily. A student enrolled in GERM 001 and/or 002 may not take any other course in the summer session.

Section 1 - Drill 8:00-9:00; LL-203

Lectures 9:00-10:00: and 10:00-11:00: LL-203.

(Klapouchy)

Section 2 - Drill 9:00-10:00; LL-101

Lectures 10:00-11:00; and 11:00-12:00; LL-12.

(Demaitre)

GERM 006. Intermediate Literary German. (3)

Daily, 9:30.

Section 1 -- F-103.

(Hahn)

Section 2 — F-104.

(Morris)

GERM 006 may not be taken concurrently with GERM 007.

GERM 007. Intermediate Literary German. (3)

Daily, 8:00; F-103. GERM 007 may not be taken concurrently with GERM 006.

(Morris)

GERM 103. Advanced Composition. (3)

Daily, 8:00; F-104.

(Best)

GERM 131. German Literature of the Nineteenth Century. (3) Daily, 10:00-11:20; LL-219.

Daily, 10:00-11:20, 22 217.

(Dobert)

GERM 399. Thesis Research. (1-6)

(Dobert)

GERM 499. Thesis Research. (1-6)

Arranged.

(Staff)

RUSS 001, 022. Elementary Russian. (3.3)

RUSS 001: June 24-July 17: RUSS 002: July 20-August 14. Register for both RUSS 001 and/or 002 on June 22 or 23 as separate courses. This course meets three times daily: 8:00-9:00, drill; Lectures 9:00-10:00 and 10:15-11:15; LL-113. A student enrolled in RUSS 001 and/or 002 may not take any other course in the summer session.

(Berry, Dulbe)

RUSS 006, 007. Intermediate Russian. (3, 3)

RUSS 006: June 24-July 17; RUSS 007: July 20-Aug. 14. Register for both RUSS 006 and/or 007 on June 22 or 23 as separate courses. This course meets daily: 9:30-10:30; 10:45-11:45. LL-201. A student enrolled in RUSS 006 and/or 007 may not take any other course in the summer session.

(Hitchcock)

SPANISH AND PORTUGUESE LANGUAGES AND LITERATURES

SPAN 001, 002. Elementary Spanish. (3, 3)

SPAN 001: June 24-July 17; SPAN 002: July 20-Aug. 14. Register for both SPAN 001 and/or 002 on June 22 or 23 as separate courses. These courses meet four hours daily M.T.Th.F.: Lecture periods: 9:00-10:00; 10:00-11:00; 12:00-1:00; plus regular

laboratory period: 8:00-9:00 or 11:00-12:00. A student enrolled in Spanish 001 002 may not take any other course in the summer session. Section 1 — LL-4. Section 2 — LL-105.	and/or eiderer) (Mur)
SPAN 006, 007. Intermediate Spanish. (3, 3) SPAN 006; June 24-July 17; SPAN 007: July 20-Aug. 14. Register for both SPA and/or 007 on June 22 or 23 as separate courses. These courses meet three daily M.T.Th.F.: first lecture period 8-9, second lecture period 9-10, third period 11-12. A student enrolled in SPAN 006 and/or 007 may not take any course in the summer session.	e hours lecture
330(10)	varrete) intenza)
SPAN 107. Introduction To Medieval Literature. (3) M.T.Th.F., 11:00; LL-116. (Met	ndeloff)
SPAN 134. Modernism and Post-Modernism in Spanish American Theater. (3) M.T.Th.F., 9:30; LL-116.	Natella)
SPAN 173. Spanish American Civilization. (3) M.T.Th.F., 8:00; LL-116.	Natella)
SPAN 201. History of The Spanish Language. (3) M.Th., 12:30-2:30; LL-105. (Me	ndeloff)
SPAN 399. Thesis Research. (1-6) Arranged.	(Staff)
SPAN 499. Dissertation Research. (1-6) Arranged.	(Staff)
HISTORY	
HIST 021. History of The United States to 1865. (3) Section 1 — M.T.Th.F., 8:00; RR-24. Section 2 — M.T.Th.F., 9:30; RR-115. Section 3 — M.T.Th.F., 3:30-4:50; RR-115. (Ca	(Staff) (Staff) ampbell)
HIST 022. History of The United States Since 1865. (3) Section 1 — M.T.Th.F., 8:00; RR-23. Section 2 — M.T.Th.F., 9:30; RR-22. Section 3 — M.T.Th.F., 11:00; RR-16. Section 4 — T.Th. 7:00-9:50 p.m.; RR-23. (Ca	(Staff) (Staff) (Staff) ampbell)
HIST 023. Social and Cultural History of Early America. (3) M.T.Th.F., 9:30; RR-17.	(Staff)
HIST 024. Social and Cultural History of Modern America. (3) M.T.Th.F., 11:00; RR-17.	(Staff)
HIST 029. The United States in World Affairs. (3) M.T.Th.F., 9:30; RR-24.	(Staff)
HIST 031. Latin American History. (3) M.T.Th.F., 9:30; RR-20.	Warren)

HIST 041. Western Civilization. (3) Section 1 — M.T.Th.F., 8:00; RR-16. Section 2 — M.T.Th.F., 11:00; RR-24. (Robert (S)	tson) Staff)
HIST 042. Western Civilization. (3) Section 1 — M.T.Th.F., 9:30; RR-3. (Vasc. Section 2 — M.T.Th.F., 9:30; RR-21. (Perin. Section 3 — M.T.Th.F., 11:00; RR-19. (Vasc.)	bam)
HIST 054. History of England and Great Britain. (3) M.T.Th.F., 9:30; RR-16.	Staff)
H!ST 061. Far Eastern Civilization. (3) M.T.Th.F., 8:00; RR-19.	Staff)
HIST 062. Far Eastern Civilization. (3) M.T.Th.F., 9:30; RR-19.	Staff)
HIST 102. The American Revolution. (3) M.T.Th.F., 8:00; RR-21.	Staff)
HIST 117. The Negro in American Life. (3) M.T.Th.F., 9:30; RR-23.	Staff)
HIST 120. The United States Since World War II. (3) M.T.Th.F., 11:00; RR-23.	Staff)
HIST 124. Reconstruction and The New Nation, 1865-1896. (3) M.T.Th.F., 9:30; RR-7.	imith)
HIST 158. The Old Regime and The French Revolution. (3) M.T.Th.F., 11:00; RR-7.	Staff)
HIST 167. History of Russia. (3) M.T.Th.F., 9:30; RR-15. (Y	'aney)
HIST 172. Europe in The World Setting of The Twentieth Century. (3) M.T.Th.F., 11:00; RR-15.	Staff)
HIST 183. Survey of African History. (3) M.T.Th.F., 11:00; RR-21. (Perin	nbam)
HIST 199. Pro-Seminar in Historical Writing. (3) Arranged.	(Staff)
HIST 200. Historiography. (3) Arranged. (Robe	ertson)
HIST 223. Readings in Recent American History. (3) Arranged.	(Staff)
HIST 227. Readings in The History of American Foreign Policy. (3) Arranged.	(Staff)
HIST 268. Seminar in Russian History. (3) Arranged. (Y	(aney)
HIST 269. Readings in Nineteenth Century Europe. (3) Arranged.	(Staff)

HIST 399. Thesis Research. (1-6)

 ${\bf Arranged}.$

HIST 499. Dissertation Research. (1-6) Arranged.	(Staff)
MATHEMATICS	
MATH 003. Fundamentals of Mathematics. (4) June 24-Aug. 14; daily. Prerequisite, satisfactory performance on the SAT matest, or MATH 001. Section 1 — Daily, 8:00; Y-B33 Section 2 — Daily, 8:00; Y-B34. Section 3 — Daily, 9:30; Y-B33. Section 4 — Daily, 9:30; Y-O43. Section 5 — Daily, 11:00; Y-B33.	(Staff) (Staff) (Staff) (Staff) (Staff) (Staff)
MATH 010. Introduction to Mathematics. (3) Prerequisite, 2½ years of college preparatory mathematics and satisfactory per on the SAT mathematics test, or MATH 001. Open to students not majoring is matics or the physical or engineering sciences. Section 1 — M.T.Th.F., 8:00; Y-B37. Section 2 — M.T.Th.F., 8:00; Y-B36. Section 3 — M.T.Th.F., 9:30; Y-B41. Section 4 — M.T.Th.F., 9:30; Y-B37. Section 5 — M.T.Th.F., 9:30; Y-B36. Section 6 — M.T.Th.F., 11:00; Y-O40. Section 7 — M.T.Th.F., 11:00; Y-B37. Section 8 — M.T.Th.F., 11:00; Y-B34.	rformance in mathe- (Staff) (Staff) (Staff) (Staff) (Staff) (Staff) (Staff) (Staff)
MATH 011. Introduction to Mathematics. (3) Prerequisite, MATH 010. MATH 011 is a continuation of MATH 010. Section 1 — M.T.Th.F., 8:00; Y-B38. Section 2 — M.T.Th.F., 9:30; Y-B38. Section 3 — M.T.Th.F., 9:30; Y-B43. Section 4 — M.T.Th.F., 11:00; Y-B36.	(Staff) (Staff) (Staff) (Staff)
MATH 015. Elementary Calculus. (3) Prerequisite, MATH 014 or equivalent. Open to students not majoring in mathe the physical or engineering sciences. M.T.Th.F., 8:00; Y-026.	ematics or (Staff)
MATH 018. Introductory Analysis.(3) Prerequisite, 2½ years of college preparatory mathematics and appropriate sco SAT mathematics test, or MATH 001. An introductory course for students not to start MATH 019. Section 1 — M.T.Th.F., 8:00; Y-B43.	
Section 2 — M.T.Th.F., 11:00; Y-036.	(Staff)
MATH 019. Analysis I. (4) June 24-Aug. 14, daily. Prerequisite, 3½ years of college preparatory mathe MATH 018. Section 1 — Daily, 8:00; Y-B42. Section 2 — Daily, 8:00; Y-031.	(Staff) (Staff)
Section 3 — Daily, 11:00; Y-B41.	(Staff)

(Staff)

(Staff)

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MATH 020. Analysis II. (4) June 24-Aug. 14; daily. Prerequisite, MATH 01 Section 1 — Daily, 9:30; Y-B34. Section 2 — Daily, 11:00; Y-043. Section 3 — Daily, 11:00; Y-035.	9 or equivalent. (Staff) (Stoff) (Staff)
MATH 021. Analysis III. (4) June 24-Aug. 14, daily. Prerequisite, MATH 020 Section 1 — Daily, 9:30; Y-034. Section 2 — Daily, 11:00; Y-B38.	or equivalent. (Staff) (Staff)
MATH 022. Analysis IV. (4) June 24-Aug. 14, daily. Prerequisite, MATH 02 Section 1 — Daily, 11:00; Y-B43. Section 2 — Daily, 11:00; Y-B40.	1 or equivalent. (Staff) (Staff)
MATH 030. Elements of Mathematics. (4) June 24-Aug. 14, daily. Prerequisite, one year of for majors in elementary education, and open on Section 1 — Daily, 8:00; Y-034. Section 2 — Daily, 8:00; Y-035. Section 3 — Daily, 8:30, Y-035.	lly to students in this field. (Staff) (Stoff)
Section 3 — Daily, 9:30; Y-035. MATH 031. Elements of Geometry. (4) June 24-Aug. 14, daily. Prerequisite, MATH 036 Section 1 — Daily, 9:30; Y-036. Section 2 — Daily, 11:00; Y-039.	(Staff) O or equivalent. (Staff) (Staff)
MATH 066. Differential Equations For Scie Prerequisite, MATH 021, or equivalent. Section 1 — M.T.Th.F., 9.30; Y-039. Section 2 — M.T.Th.F., 9:30; Y-038. Section 3 — M.T.Th.F., 11:00; Y-038.	,
MATH 100. Vectors and Matrices. (3) Prerequisite, MATH 021 or MATH 015. Algebra mended for students interested in the application Section 1 — M.T.Th.F., 8:00; Y-036. Section 2 — M.T.Th.F., 9:30; Y-040.	of vector spaces and matrices. Recom-
MATH 103. Introduction to Abstract Algeb Prerequisite, MATH 022 or equivalent. Section 1 — M.T.Th.F., 9:30; Y-840. Section 2 — M.T.Th.F., 11:00; Y-042.	
MATH 104. Introduction to Linear Algebra. Prerequisite, MATH 103 or consent of instructor M.T.Th.F., 11:00; Y-B42.	r. (Staff)
MATH 110. Advanced Calculus. (3) Prerequisite, MATH 022. M.T.Th.F., 9:30; Y-B42. MATH 119. Several Real Variables. (3)	(Staff)
Prerequisite MATH 110	

Prerequisite, MATH 110. M.T.Th.F., 9:30; Y-042.

MATH 128. Euclidean Geometry. (3)

Prerequisite, MATH 021 or consent of instructor. Recommended for students in the College of Education.

Section 1 - M.T.Th.F., 8:00; Y-039.

(Staff)

Section 2 - M.T.Th.F., 8:00; Y-B41.

(Staff)

Section 3 — M.T.Th.F., Daily, 9:30; Y-026. (June 22-July 31). Open only to participants in the N.S.F. Institute for High School Teachers. (Green)

MATH 146. Fundamental Concepts of Mathematics. (3)

Prerequisite, MATH 021 or consent of instructor.

M.T.Th.F., 8:00; Y-038.

(Staff)

MATH 163. Analysis for Scientists and Engineers II. (3)

Prerequisite, MATH 162 or MATH 022 or consent of instructor. Not open to students with credit for MATH 113. This course cannot be counted toward a major in mathematics.

M.T.Th.F., 11:00; Y-022.

(Staff)

MATH 181. Introduction to Number Theory. (3)

Enrollment restricted to elementary school teachers, kindergarten through grade 6. Designed primarily for those enrolled in programs with emphasis in the teaching of mathematics and science. Not open to students seeking a major directly in the physical sciences.

Section 1 - M.T.Th.F., 8:00; Y-043.

(Staff)

Section 2 --- M.T.Th.F., 8:00; Y-040.

(Staff)

MATH 183. Introduction to Geometry. (3)

Enrollment restricted to elementary school teachers, kindergarten through grade 6. Designed primarily for those enrolled in programs with emphasis in the teaching of mathematics and science. Not open to students seeking a major directly in the physical sciences.

(Staff)

M.T.Th.F., 11:00; Y-034.

MATH 185. Selected Topics in Mathematics. (3)

Section 1 — Daily, June 22-July 31, 8:00; E-305.

(Good)

Open only to participants in the N.S.F. Institute for Junior High School Teachers in Mathematics.

Section 2 — Daily, June 22-July 31, 8:00; C-134.

(Thaler)

Open only to participants in the N.S.F. Institute for High School Teachers in Mathematics.

MATH 189. National Science Foundation Summer Institute for Teachers in Science and Mathematics Seminar. (3)

Open only to participants in the N.S.F. Institute for Junior High School Teachers. Daily, June 22-July 31, 1:00; OO-126. (Fey)

MATH 190. Honors Seminar. (2)

Prerequisite, permission of the departmental Honors Committee. June 29-Aug. 7, daily, time to be arranged. (Staff)

MATH 399. Thesis Research. (1-6)

Arranged.

(Staff)

MATH 499. Dissertation Research. (1-6)

Arranged.

(Staff)

STAT 100. Probability and Statistics I. (3)

Prerequisite, MATH 015 or concurrent enrollment in MATH 021.

(Staff)

(Staff)

(Heim)

Section 1 — M.T.Th.F., 8:00; Y-B40. Section 2 — M.T.Th.F., 8:00; Y-042. Section 3 — M.T.Th.F., 11:00; Y-031.	(Staff) (Staff) (Staff)
STAT 101. Probability and Statistics II. (3) Prerequisite, STAT 100. M.T.Th.F., 9:30; Y-031.	(Staff)
MICROBIOLOGY	
MICB 001. General Microbiology. (4) Four lectures and four two-hour laboratory period T-5; Laboratory, M.T.Th.F., 9:00-11:00; T-210, T-2	s a week. Lecture, M.T.Th.F., 8:00; 211, T-212. (Young)
MICB 181. Microbiological Problems. (3) Prerequisite, 16 credits in MICB. Six two-hour lab only upon consent of the instructor. Arranged.	oratory periods a week. Registration (Staff)
MICB 399. Thesis Research. (1-6) Arranged.	(1),42()
	(Staff)
MICB 499. Dissertation Research. (1-6) Arranged.	(Staff)
MUSIC	
MUSC 007. Theory of Music. (3) June 24-Aug. 14; daily, 12:30; NN-208.	(Gallagher)
MUSC 008. Theory of Music. (3) Prerequisite, MUSC 007. June 24-Aug. 14; daily, 8	:00; NN-210. (Payerle)
MUSC 009F. University Chorus. (1) June 24-Aug. 14; M., 7:00-10:00 p.m.; NN-205.	(Traver)
MUSC 016. Fundamentals for the Classroom Section 1 — Daily, 8:00; NN-301. Section 2 — Daily, 11:00; NN-208.	Teacher. (3) (Fanos) (Fanos)
MUSC 020. Survey of Music Literature. (3) Open to all students except Music and Music Esatisfy the Fine Arts option in the General Education Section 1 — M.T.Th.F., 8:00; NN-205.	ducation majors. May be taken to 1 Program. (Shreiber)
Section 2 — M.T.Th.F., 11:00; NN-205.	(Payerle)
MUSC 071. Advanced Theory of Music. (4) Prerequisite, MUSC 70. June 24-Aug. 14; daily, 9:3	0; NN-202. (Shreiber)
MUSC 125. Honors Reading Course. (2-3) June 24-July 31. To be arranged.	(Staff)
MUSC 201. Seminar in Music: Brahms. (3) Prerequisites, MUSC 120 and 121 or the equivaler 9:30; NN-205.	it and consent of instructor. Daily,

Seminar in Musicology: Music Criticism. (3) Prerequisite, MUSC 121 or consent of instructor. Daily, 12:30; NN-210.

Special Studies in Music. (3) Arranged. Music 301. Seminar in Music Literature.

9:30; NN-205.

MUSC 203.

MUSC 211.

48 • University of Maryl	and at College Park	
MUSC 399. Thesis Research	h. (1-6)	(Staff)
MUSC 499. Dissertation Re Arranged.	esearch. (1-6)	(Staff)
APPLIED MUSIC		
Arranged. A student taking register for MUSC 999. He w		
Courses: MUSC 012, 013, 052	2, 053, 112, 113, 152, 153, 2	12, 213, 214, 312, 313, 314.
Every student taking an appli proper course number, indicate letter from among those follo	e the instrument chosen by a wing for applied music instru	dding an appropriate section ction for Summer, 1970:
A. Piano B. Voice C. Violin D. Viola E. Cello	F. Bass G. Flute I. Clarinet L. Horn M. Trumpet	N. Trombone O. Tuba P. Euphonium R. Organ
PHILOSOPHY		
PHIL 001. Introduction to I Section 1 — M.T.Th.F., 9:30; Section 2 — M.T.Th.F., 11:00; Section 3 — M.W., 7:00	T-5.	(Martin) (Staff) (Perkins)
PHIL 041. Elementary Logic Section 1 — M.T.Th.F., 11:00; Section 2 — M.T.Th.F., 12:30;	c and Semantics. (3) : T-202. : T-202.	(Staff) (Odell)
PHIL 045. Ethics. (3) Section 1 — M.T.Th.F., 9:30; Section 2 — M.T.Th.F., 12:30;		(Kress) (Celarier)
PHIL 053. Philosophy of R M.T.Th.F., 11:00; T-201.	Peligion. (3)	(Roelofs)
PHIL 102. Modern Philosop M.T.Th.F., 9:30; T-201.	phy. (3)	(Varnedoe)
PHIL 193. Topical Investiga Arranged.	ations. (1-3)	(Staff)
PHIL 194. Topical Investigo Arranged.	ations. (1-3)	(Staff)

Selected Problems in Philosophy. (1-3)

Thesis Research in Philosophy. (1-6)

Dissertation Research in Philosophy. (1-6)

(Staff)

(Staff)

(Staff)

PHIL 292.

PHIL 399.

PHIL 499.

Arranged.

Arranged.

Arranged.

PHYSICS AND ASTRONOMY

- ASTR 001. Introduction to Astronomy. (3)

 June 24-July 31. Lecture, M.T.W., 7:30-9:00 p.m.; Laboratory, Th., 7:30-9:30 p.m.;
 Z-171. (Staff)
- ASTR 150. Special Problems in Astronomy.

 Prerequisite, major in PHYS or ASTR and/or consent of adviser. Research or special study. Credit according to work accomplished. Arranged. (Staff)
- ASTR 190. Honors Seminar.

 Enrollment is limited to students admitted to the Honors Program in Astronomy. Credit according to work assigned. Arranged. (Staff)
- ASTR 250. Special Problems in Advanced Astronomy. (1-6)
 Credited according to work assigned. Arranged. (Staff)
- ASTR 399. Thesis Research. (1-6)
 Arranged. (Staff)
- ASTR 499. Dissertation Research. (1-6)
 Arranged. (Staff)
- PHYS 010. Fundamentals of Physics. (4)

 Prerequisite, entrance credit in trigonometry or MATH 011 or concurrent enrollment in MATH 018. Lecture and recitation sessions plus 4 hours of lab per week. Lecture and Recitation daily, 11:00-12:40; Z-171. Lab Section 1: Tu.Th., 9:00-11:00, Z-362. Lab Section 2: M.W., 2:00-4::00: Z-362. (Eagleson)
- PHYS 030. General Physics: Mechanics and Particle Dynamics. (3)
 Prerequisite, MATH 020 or concurrent enrollment in MATH 020. Lecture, M.T.Th.F.,
 8:00; Z-171. Recitation: Section 1, W., 8:00, Z-171; Section 2, W., 11:00; Z-173;
 Section 3, W., 1:00; Z-173. (Holt)
- PHYS 106. Theoretical Mechanics. (3)
 Prerequisite, PHYS 051 or equivalent. M.T.Th.F., 2:00; Z-171. N.S.F. Institute only.
 (Conners. Beall)
- PHYS 110. Intermediate Experiments: Special Lab Projects in Physics. (2) M.F., 8:00-12:00; Z-322. N.S.F. Institute only. (Connors.
- PHYS 140. Atomic and Nuclear Laboratory. (2)
 Prerequisite, PYHS 100 or equivalent. June 24-Aug. 14; T.Th., 8:00-1:00; Z-349.

 (Anderson)
- PHYS 150. Special Problems in Physics.

 Prerequisite, major in PHYS or consent of Department Chairman. Section 1. Credit to be arranged. Research or special study.

 Section 2. Credit to be arranged, topic to be announced.

 (Staff)
- PHYS 190. Honors Program.

 Arranged. Credit according to work accomplished. Enrollment is limited to students enrolled in the Honors Programs in PHYS. (Staff)
- PHYS 204. Methods of Mathematical Physics. (4)
 Prerequisite, PHYS 127 or equivalent. Daily, 9:30; Z-140. (Beall)
- PHYS 209. Graduate Laboratory. (3)
 June 24-Aug. 14; T.Th., 8:00-1:00; Z-349. (Staff)

230. Seminar. (1)		PHYS 230. Seminar. (1)
ection 1 — Arranged. One class per week (to be announced). (Sta	announced). (Staff	Section 1 — Arranged. One class per week (to
ection 2 — W., 2:00; Z-140. Teaching of College Physics. N.S.F. Institute anly. (Connors, Zipo	Physics. N.S.F. Institute only. (Connors, Zipoy	Section 2 — W., 2:00; Z-140. Teaching of Col
- I - I - I - I - I - I - I - I - I - I		•
	(Staff	PHYS 399. Thesis Research. (1-6) Arranged.
(1.0)	(Staff	PHYS 499. Dissertation Research. (1-6) Arranged.
HOLOGY		PSYCHOLOGY
ection 1 — M.T.Th.F., 8:00; RR-2. (Osterhous	(Osterhouse (Claiborn	PSYC 001. Introduction to Psychology. (Section 1 — M.T.Th.F., 8:00; RR-2. Section 2 — M.T.Th.F., 9:30; RR-2.
,	(Caiborn	PSYC 005. Personality and Adjustment. Prerequisite, PSYC 001. M.T.Th.F., 8:00; A-52
7	(Higgs	PSYC 021. Social Psychology. (3) Prerequisite, PSYC 001. M.T.Th.F., 11:00; A-5
	(Scholnick	PSYC 025. Child Psychology. (3) Prerequisite, PSYC 001. M.T.Th.F., 9:30; A-52.
rerequisite, PSYC 001 and MATH 001, or 005 or 010 equivalent. (Holmgre		
erequisite, two courses in PSYC. ction 1 — M.T.Th.F., 8:00; A-161. (Die	(Dies (Smith	PSYC 131. Abnormal Psychology. (3) Prerequisite, two courses in PSYC. Section 1 — M.T.Th.F., 8:00; A-161. Section 2 — M.T.Th.F., 9:30; T-10.
145. Experimental Psychology: Sensory Processes. (4) erequisite: PSYC 090. June 26-Aug. 14; Lecture, M.T.Th.F., 8:00-9:30;T-10 aboratory Section 1 — M.W. 10:00-12:20; M-10. aboratory Section 2 — T.Th., 10:00-12:20; M-10. aboratory Section 3 — M.W., 12:30-3:20; M-10. aboratory Section 4 — T.Th., 12:30-3:20; M-10. (Fisher		Prerequisite: PSYC 090. June 26-Aug. 14 Laboratory Section 1 — M.W. 10:00-12:20; M- Laboratory Section 2 — T.Th., 10:00-12:20; M-
erequisite: PSYC 001, 090, and permission of instructor. M.T.Th.F., 9:30; T-11	instructor. M.T.Th.F., 9:30; T-118 (Horton	PSYC 148. Psychology of Learning. (3) Prerequisite: PSYC 001, 090, and permission
	nces. (3) (Waldrop)	PSYC 151. Psychology of Individual Diffe Prerequisite, PSYC 150. M.T.Th.F., 8:00; RR-5
37. (2)	-103. (Dachler)	

PSYC 191. Senior Seminar. (3) Prerequisite. Senior standing and consent of instructor. June 25-Aug. 19, M.T.W., 2:00-3:50: RR-5. (Bartlett) PSYC 194. Independent Study in Psychology, (1-3) Prerequisite advanced standing and written consent of individual faculty supervisor. Arranged. PSYC 195S. Minor Problems in Psychology, (1-3) Prerequisites, advanced standing and written consent of individual faculty supervisor. June 25-Aug. 14; Th.F., 2:00-3:50; RR-5. (Bartlett) PSYC 208 Verbal Behavior, (3) Prerequisite, PSYC 123 and 212, Arranged. (Horton) PSYC 221. Seminar in Counselina Psychology. (3) (Fretz) Arranged. PSYC 229. Seminar in Industrial Psychology, (3) (Dachler) Arranged. PSYC 242. Seminar in Social Psychology, (3) (Higgs) Arranged. PSYC 2.57 Seminar in Quantitative Psychology. (3) (Holmaren) Prerequisite, PSYC 253, Arranged. Development of Predictors, (3) June 25-Aug. 14; T., 1:30-3:00, 1 hour arranged; M-301. (Carroll) PSYC 260. Occupational Development and Choice. (3) (Waldrop) Arranged. PSYC 265. Advanced Developmental Psychology. (Scholnick) Arranged. PSYC 267. Theories of Personality. (3) (Smith) June 29-Aug. 11; Arranged. PSYC 288. Special Research Problems, (1-4) Requires graduate standing and consent of individual faculty supervisor. Arranged. (Staff) PSYC 399. Thesis Research, (1-6) (Staff) Arranged. PSYC 499. Dissertation Research. (1-6) (Staff) Arranged. SOCIOLOGY Sociology 001, or its equivalent, is required for all other courses. SOCY 001. Introduction to Sociology. (3) (McIntyre) Section 1 — M.T.Th.F., 9:30; A-167. (Henkel) Section 2 - M.T.Th.F., 11:00; A-167. (Kruegel) Section 3 - M.T.Th.F., 12:30; RR-113. SOCY 051. Social Problems. (3) M.T.Th.F., 2:00; RR-24. (Hunt)

Daily, 9:30; NN-22A.

(Staff)

(Lea)

(Meersman)

DART 014 Staaecraft, (3) M.T.Th.F., 11:00: NN-57. (Lea) DART 016 Introduction to The Theatre. (3) M.T.Th.F., 9:30: NN-55. (Pualiese) Speech Handicapped School Children. (3) Doily, 11:00: NN-22A. (Staff) SPHR 106. Clinical Practice, (1-3) Prerequisite, SPHR 105 and permission of instructor, June 27-Aug. 1: T.F., 12:30 and arranged; NN-22A. (Hawbecker) SPCH 111. Seminar, (3) Prerequisites. Senior standing and consent of instructor. Arranged. (Pugliese) DART 113. Play Production. (3) Prerequisite, DART 016 or consent of instructor. M.T.Th.F., 11:00; F-24. (O'Leary) RATV 115. Radio and Television in Retailing. (3) M.T.Th.F., 8:00: NN-122. (Kirklev) SPHR 120. Pathology, (3) Prerequisite, SPHR 105. Daily, 9:30; NN-4. (Staff) DART 127. Children's Dramatics. (3) M.T.Th.F., 9:30; NN-122. (Vaughan) DART 139. Theatre Workshop. (3) Prerequisite, DART 008 or 014. Arranged. (Vaughan) RATV 140. Principles of Television Production. (3) Section 1 — M.T.Th.F., 9:30; NN-40. Section 2 — M.T.Th.F., 11:00; NN-40. (Kirklev) (McCleary) Special Problems Seminar: Stuttering. (3) Prerequisites, six hours in speech pathology and consent of instructor. Daily, 9:30; NN-13. (Staff) Special Problems Seminar: Cleft Palate. (3) Prerequisites, six hours in speech pathology and consent of instructor. Daily, 11:00; NN-13. (Staff) SPHR 201C. Special Problems Seminar: Delayed Speech. (3) Prerequisites, six hours in speech pathology and consent of instructor. Daily, 12:30; NN-13. (Staff) SPHR 211A. Advanced Clinical Practice: Speech Therapy. (1-3) Prerequisites, 12 hours of speech pathology and audiology. Arranged. (Hawbecker) SPHR 211B. Advanced Clinical Practice: Audiology. (1-3) Prerequisites, 12 hours of audiology and pathology. Arranged. (Staff) SPHR 214. Clinical Audiometry. Daily, 11:00; NN-4. (Doudna)

DART 008

Acting, (3)

SPCH 013. Oral Interpretation. (3)

M.T.Th.F., 11:00: NN-55

Prerequisite, consent of instructor. Arranged.

SPCH 290.

Independent Study. (1-3)

SPHR 301. Independent Study in Speech and Hearing Science. (1-6)

Prerequisite, 30 hours of graduate study in speech and hearing science. Arrange (Newl	ed. by)
SPCH 399. Thesis Research. (1-6) Arranged. (Sta	off)
SPCH 499. Dissertation Research. (1-6) Arranged. (Sta	aff)
ZOOLOGY	
Laboratory Section 2 — T.Th., 9:30-11:30; CC-107. (State of the content of the co	ogy. ian) aff) aff) aff) aff)
I aboratory Section 1 (V. 1. 11), [7.00-11.00, CC-110.	aw) aff) aff)
I aboratory Section 1 — 1.11., 0.00-10.00, 10-200.	ter) aff) aff)
ZOOL 055\$. Development of the Human Body. (2) M.W.F., 8:00; T-10. (Sm	ith)
Inhoratory Section 1 1.10., 0.00-11.00, 8-112.	ure, nan) raff) raff)
ZOOL 118. Invertebrate Zoology. (4) Prerequisite, one year of zoology. 5 hours of lecture and 15 hours of laboratory week, 6-week session. Offered at the Chesapeake Biological Laboratory. Address quiries to: Director, Chesapeake Biological Laboratory, Box 38, Solomons, Maryla (Line)	and.
ZOOL 120. Vertebrate Embryology. (4) Prerequisite, one year of zoology. Lecture, M.T.Th.F., 11:00-12:00; A-166. Laborat M.T.Th.F., 8:00-11:00; R-202. (Ran	tory, mm)
ZOOL 150. Special Problems in Zoology. (1 or 2) Prerequisites, major in zoology or biological sciences, a minimum of 3.0 cumula	ative taff)

average in the biological sciences, and consent of instructor. Arranged.

Honors Independent Study. (1-4)

Prerequisite, participation in honors program. Arranged.

ZOOL 152H.

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BSAD 140. Business Finance. (3) Section 1 — M.T.Th.F., 8:00; F-112. Section 2 — M.T.Th.F., 8:00; F-112A.	(Staff) (Staff)
BSAD 149. Marketing Principles and Organization. (3) Section 1 — M.T.Th.F., 9:30; Q-123. Section 2 — M.T.Th.F., 9:30; F-112A.	(Staff) (Staff)
BSAD 151. Advertising. (3) Prerequisite, BSAD 149 or consent of instructor. M.T.Th.F., 12:30; Q-123.	(Staff)
BSAD 160. Personnel Management I. (3) Section 1 — M.T.Th.F., 12:30; Q-129. Section 2 — M.T.Th.F., 12:30; Q-130.	(Staff) (Staff)
BSAD 161. Personnel Management II. (3) Prerequisite, BSAD 160. M.T.Th.F., 8:00; Q-130.	(Staff)
BSAD 163. Labor Relations. (3) M.T.Th.F., 9:30; Q-133.	(Staff)
BSAD 167. Operations Research I. (3) Prerequisite, BSAD 130 or consent of instructor. M.T.Th.F., 9:30; Q-104.	(Staff)
BSAD 168. Management and Organization Theory. (3) Section 1 — M.T.Th.F., 11:00; Q-28. Section 2 — M.T.Th.F., 11:00; Q-130.	(Staff) (Staff)
BSAD 170. Principles of Transportation. (3) M.T.Th.F., 8:00; G-109B.	(Staff)
BSAD 180. Business Law. (3) Section 1 — M.T.Th.F., 8:00; Q-28. Section 2 — M.T.Th.F., 8:00; G-205.	(Staff) (Staff)
BSAD 181. Business Law. (3) M.T.Th.F., 9:30; G-109B.	(Staff)
BSAD 189. Business and Government. (3) Section 1 — M.T.Th.F., 11:00; G-109A. Section 2 — M.T.Th.F., 11:00; Q-104.	(Staff) (Staff)
BSAD 199. Business Policies. (3) Prerequisite, senior standing. Section 1 — M.T.Th.F., 8:00; RR-7. Section 2 — M.T.Th.F., 9:30; G-109A. Section 3 — M.T.Th.F., 9:30; Q-130. Section 4 — M.T.Th.F., 9:30; Q-28.	(Staff) (Staff) (Staff) (Staff)
BSAD 237. Management Simulation. (3) Prerequisite, BSAD 234 or consent of instructor. M.W., 12:30-3:00; RR-7.	(Staff)
BSAD 240. Financial Administration. (3) W.F., 3:00-5:30; RR-7.	(Staff)
BSAD 251. Marketing Communications Management. (3) M.W., 3:00-5:30; Q-504.	(Staff)
BSAD 264. Behavioral Factors in Management. (3) T.W., 3:00-5:30; Q-232.	(Staff)

BSAD 282. Product, Production and Pricing Policy. (3) June 25-Aug. 13; M.W., 12:30-3:00; Q-232.	(Staff)
BSAD 298. Independent Study in Business Administration. (3) Arranged.	(Staff)
BSAD 399. Thesis Research. (1-6) Arranged.	(Staff)
BSAD 499. Dissertation Research. (1-6) Arranged.	(Staff)
ECONOMICS	
	(Staff) (Staff)
i i i	(Staff) (Staff)
Section 2 — M.T.Th.F., 9:30; A-321.	(Staff) (Staff) (Staff)
Section 2 — M.T.Th.F., 9:30; Q-107.	N 031 (Staff) (Staff) (Staff)
ECON 102. National Income Analysis. (3) Prerequisite, ECON 032. Required for ECON majors. M.T.Th.F., 9:30; Q-210.	(Staff)
ECON 105. Introduction to Economic Development of Under-Devel Areas. (3) Prerequisite, ECON 032. M.T.Th.F., 8:00; Q-232.	oped (Staff)
ECON 130. Mathematical Economics. (3)	(Staff)
ECON 131. Comparative Economic Systems. (3) Prerequisite, ECON 032. M.T.Th.F., 11:00; Q-107.	(Staff)
500.10m 1 1111111111111111111111111111111	(Staff) (Staff)
ECON 140. Money and Banking. (3) Prerequisite, ECON 032. M.T.Th.F., 8:00; Q-228.	(Staff)
ECON 148. International Economics. (3) Prerequisite, ECON 032. M.T.Th.F., 12:30; Q-107.	(Staff)

Prerequisite, ECON 032. M.T.Th.F., 11:00; A-320.	(Staff)
ECON 170. Industrial Organization. (3) Prerequisite, ECON 032. M.T.Th.F., 9:30; Q-132.	(Staff)
ECON 237. Selected Topics in Economics. (3) Arranged.	(Staff)
ECON 399. Thesis Research. (1-6) Arranged.	(Staff)
ECON 499. Dissertation Research. (1-6) Arranged.	(Staff)
GEOGRAPHY	
GEOG 001. Introduction to Geography. (3) M.T.Th.F., 11:00; Q-209.	(Kinerney
GEOG 010. Introduction to Physical Geography. (3) M.T.Th.F., 8:00; Q-210.	(Kinerney)
GEOG 011. Introduction to Human Geography. (3) M.T.Th.F., 9:30; Q-228.	(Chaves
GEOG 109. Introduction to Research and Writing in Geographic 25-Aug. 14; M.W., 1:00-3:30; Q-209.	raphy. (3) (Mitchell)
GEOG 110. Economic and Cultural Geography of Caribbo M.T.Th.F., 8:00; Q-209.	ean America. (3) (Chaves
GEOG 122. Economic Resources and Development of Afr June 25-Aug. 14; T.Th., 1:00-3:30; Q-209.	rica. (3) (Deshler
GEOG 127. Historical Geography of North America. (3) M.T.Th.F., 11:00; Q-228.	(Mitchell
GEOG 134. Cultural Geography of China and Japan. (3) M.T.Th.F., 11:00; Q-210.	(Hu
GEOG 160. Advanced Economic Geography I: Agricultur M.T.Th.F., 9:30; Q-209.	al Resources. (3) (Deshler
GEOG 180. Scientific Methodology and History of Geogra June 25-Aug. 14; T.Th., 7:00-9:15 p.m.; Q-228.	aphy. (3) (Hu
GOVERNMENT AND POLITICS	
GVPT 001. American Government. (3) Section 1 — M.T.Th.F., 9:30; Q-7. Section 2 — M.T.Th.F., 11:00; Q-213. Section 3 — M.T.Th.F., 12:30; Q-19A.	(McGregar (Hathorn (Chaples
GVPT 003. Principles of Government and Politics. (3) M.T.Th.F., 8:00; Q-213.	(Heisler
GVPT 020. Introduction To Political Behavior. (3) Prerequisite, GVPT 001. M.T.Th.F., 9:30; Q-19A.	(Chaples

GVPT 040. Politicial Ideologies. (3) Prerequisite, GVPT 001. M.T.Th.F., 8:00; Q-19B.	(Terchek)
GVPT 090. Comparative Politics and Government. (3) M.T.Th.F., 12:30; Q-211.	(Oliver)
GVPT 101. International Political Relations. (3) M.T.Th.F., 11:00; Q-123.	(Heisler)
GVPT 106. American Foreign Relations. (3) Prerequisite, GVPT 001. M.T.Th.F., 9:30; Q-211.	(Barber)
GVPT 110. Principles of Public Administration. (3) Prerequisite, GVPT 001. M.T.Th.F., 8:00; Q-211.	(Ingles)
GVPT 133. The Judicial Process. (3) Prerequisite, GVPT 001. M.T.Th.F., 9:30; Q-213.	(Byrd)
GVPT 141. History of Political Theory. (3) Prerequisite, GVPT 001. M.T.Th.F., 12:30; Q-213.	(Byrd)
GVPT 142. Recent Political Theory. (3) Prerequisite, GVPT 001. M.T.Th.F., 11:00; Q-19B.	(Terchek)
GVPT 162. Urban Politics. (3) Prerequisite, GVPT 001. M.T.Th.F., 11:00; Q-211. (G	lendening)
GVPT 203. Functional Problems In International Relations. (3) June 24-Aug. 14; T.F., 12:30-3:00; Q-369.	(McNelly)
GVPT 206. Seminar In American Foreign Relations. (3) June 24-Aug. 14; M.Th., 12:30-3:00; Q-369.	(Plischke)
GVPT 207. Seminar In Comparative Governmental Institutions. (3) June 24-Aug. 14; T.F., 3:00-5:30; Q-504.	(Oliver)
GVPT 208. Seminar In The Government and Politics of Emerging Nations. (3)	
June 24-Aug. 14; T.F., 3:00-5:30; Q-369.	(Harrison)
GVPT 210. Governmental Organization Theory. (3) June 24-Aug. 14; M.Th., 12:30-3:00; Q-132.	McGregor)
GVPT 213. Problems of Public Administration. (3) June 24-Aug. 14; M.Th., 3:00-5:30; Q-369.	(Dillon)
GVPT 223. Seminar in Legislatures and Legislation. (3) June 24-Aug. 14; T.F., 12:30-3:00; Q-504.	(Conway)
GVPT 261. Problems In American Government and Politics. (3) June 24-Aug. 14; M.Th., 3:00-5:30; Q-504.	(Hathorn)
GVPT 399. Thesis Research. (1-6) Arranged.	(Staff)
GVPT 499. Dissertation Research. (1-6) Arranged.	(Staff)
INFORMATION SYSTEMS MANAGEMENT	
ISM 101. Electronic Data Processing. (3) Prerequisites, junior standing and MATH 011. M.T.Th.F., 8:00; Q-6.	(Staff)

(Speilbichler) (Pumroy)

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ISM 102. Electronic Data Processing Appli Prerequisite, ISM 101 or consent of instructor. M	ication. (3) A.T.Th.F., 9:30; Q-6.	(Staff)
JOURNALISM		
JOUR 010. Introduction To Journalism. (3) Daily, 9:30; G-304.		(Martin)
JOUR 100. News Reporting. (3) Daily, 11:00; G-304.		(Midura)
JOUR 160. News Editing. (3) Daily, 11:00; G-305.		(Crowell)
JOUR 165. Feature Writing. (3) Daily, 9:30; G-204.		(Flippen)
JOUR 166. Public Relations. (3) Daily, 12:30; G-204.		(Grunig)
JOUR 181. Press Photography. (3) Daily, 9:00-11:00; G-208.		(Geraci)
EDUCATIO	N	
COUNSELING AND PERSONNEL SERVICES		
EDCP 161. Introduction To Counseling and Section 1 — Daily, 8:00; OO-30. Section 2 — Daily, 9:30; AA-14. Section 3 — Daily, 11:00; AA-16.	()) Stockdale) (Chasnoff) (Staff)
EDCP 172. Mental Hygiene in the Classroc Section 1 — Daily, 8:00; AA-14. Section 2 — Daily, 12:30; OO-125.	om. (3)	(Perry) (Stoff)
EDCP 187. Field Experience In Counseling See EDUC 187 for description. Arranged.	and Personnel Services.	(1-4)
EDCP 188. Special Problems In Counseling See EDUC 188 for descprition. Arranged.	and Personnel Services.	(1-3)
EDCP 189A. Group Counseling. (3) Daily, 11:00; FF-20.		(Draeger)
EDCP 224. Apprenticeship In Counseling a See EDUC 224 for description. Arranged.	nd Personnel Services. (1-9) (Staff)
EDCP 243. Occupational Choice—Theory at Daily, 9:30; AA-16.	nd Information. (3)	(Byrne)
EDCP 249. Personality Theories in Education Section 1 — Daily, 8:00; AA-16. Section 2 — Daily, 9:30; OO-221.		ireenberg) (Pumroy)

EDCP 250. Cases in Appraisal. (3)
Section 1 — Daily, 8:00; FF-16.
Section 2 — Daily, 12:30; AA-16.

EDCP 254. Organization and Administration of Personnel Services. (2) Daily, 11:00; O-101. (Greenberg
EDCP 260. Counseling—Theoretical Foundations and Practice. (3) Section 1 — Daily, 11:00; OO-312. Section 2 — Daily, 9:30; OO-222. (Stern
EDCP 261. Practicum in Counseling. (2) (Stern Section 1 — Daily, 8:00; FF-7. (Stern Section 2 — Daily, 11:00; OO-221. (Speilbichler Section 3 — Daily, 12:30; AA-16. (Collins Section 4 — Daily, 12:30; RR-21.
EDCP 265. Counseling in the Elementary Schools. (3) Daily, 9:30; FF-18. (Collins
EDCP 271. Counseling and Personnel Services Seminar. (2) Section 1 — Daily, 9:30; OO-26. Section 2 — Daily, 12:30; RR-22. (Staff
EDCP 287. Internship In Counseling and Personnel Services. (3-16) See EDUC 287 for description. Arranged.
EDCP 288. Special Problems In Counseling and Personnel Services. (1-6 See EDUC 288 for description. Arranged. (Staff
EDCP 399. Thesis Research. (Staff.
EDCP 499. Dissertation Research. (Staff.
EARLY CHILDHOOD-ELEMENTARY EDUCATION
EDEL 105B. Science in the Elementary School. (3) Daily, 9:30; OO-24. (Williams
EDEL 115. Activities and Materials in Early Childhood Education. (3) Daily, 8:00; OO-105. (Stant
EDEL 121B. Language Arts in the Elementary School. (3) Section 1 — Daily, 9:30; OO-26. Section 2 — Daily, 11:00; J-150. (Zachary
EDEL 122B. Social Studies in the Elementary School. (3) Section 1 — Daily, 9:30; OO-225. (O'Neill Section 2 — Daily, 11:00; OO-225. (Weaver Section 3 — Daily, 12:30; OO-026.
EDEL 123A. The Child and the Curriculum. (3) Daily, 9:30; FF-19. (Stant
EDEL 125. Art in the Elementary School. (3) Daily, 8:00; NN-238. (Enrollment limited to 25) (Longley
EDEL 126A. Mathematics in the Elementary School. (3) Daily, 8:00; OO-036. (Martin
EDEL 126B. Mathematics in the Elementary School. (3) Section 1 — June 25-Aug. 14; M.T.Th.F., 8:00; OO-301. Section 2 — June 25-Aug. 14; M.T.Th.F., 9:30; OO-301. (Schindler

- Summer School 1970 Foreign Language Methods in the Elementary School. (3) (Flores) Daily, 12:30-1:50: OO-307. **FDFI 152** Literature for Children and Young People, (3) (Roderick) Daily, 11:00; FF-7. EDEL 1.53. The Teaching of Reading, (3) Section 1 - Daily, 11:00; FF-19. (Hall) (McCuaia) Section 2 - Daily, 12:30: OO-303. Section 3 - Daily, 2:00; OO-301. (Herman) Special Problems in Education, (3) Prerequisite, consent of instructor. Course cards must have the title of the problem and the name of the instructor who approved it. Arranged. (Staff)
- EDEL 189A. Workshop in Early Childhood Education. (3) June 24-July 10: Daily, 9:00-3:00. (Mover)
- EDFL 189K European Travel Seminar. (6) June 25-Aug. 9. Arranged. (O'Donnell)
- EDEL 200. Seminar in Elementary Education. (2) June 24-July 31: M.W.F.: 11:00: FF-18. (O'Neill)
- EDEL 205. Problems in Teaching Science in Elementary Schools. (3) Daily, 8:00; OO-321.
- Curriculum Planning in Nursery-Kindergarten Education. (3) June 24-July 10; Daily, 8:00-11:00; AA-12.
- EDEL 214. Intellectual and Creative Experiences of the Nursery-Kindergarten Child. (3) (Mover) July 13-Aug. 1; Daily, 8:00-11:00.
- Problems in Teaching Language Arts in Elementary School. (3) Section 1 - Daily, 11:00; OO-127. (Zachary) Section 2 - Daily; 12:30; AA-12. (Roderick)
- EDEL 222. Problems of Teaching Social Studies in Elementary School. (3) Section 1 - Daily, 12:30; AA-14. Section 2 - Daily, 2:00; OO-303. (Weaver)
- Diagnosis and Remediation of Arithmetic Disabilities. (3) Prerequisite, EDEL 126 and EDUC 150 or equivalents. Daily, 8:00; OO-227. (Ashlock)
- EDEL 253. Problems in the Teaching of Reading. (3) Daily, 8:00; OO-127. (Hall)
- Special Problems in Education, (1-3) Prerequisite, consent of instructor. Course cards must have the title of the problem and the name of the instructor who has approved it. Arranged. (Staff)
- EDEL 399. Thesis Research. (1-6) (Staff) Arranged.
- EDEL 499. Dissertation Research. (1-6) Arranged. (Staff)

EDUCATIONAL ADMINISTRATION, SUPERVISION AND CURRICULUM	
EDAD 189A. Workshop on Human Relationships in Educational Administra-	
tion. (6) Daily, 9:00-3:30, John F. Kennedy Senior High School. (Newell)	
EDED 210. The Organization and Administration of Public Education. (3) Section 1 — M.T.Th.F., 9:30; FF-7. (Goldman) Section 2 — M.T.Th.F., 12:30; OO-301. (McLoone)	
EDAD 211. Organization and Administration of Secondary Schools. (3) M.T.Th.F., 9:30; FF-16. (J. P. Anderson)	
EDAD 212. School Finance and Business Administration. (3) M.T.Th.F., 2:00; OO-222. (McLoone)	
EDAD 216. Public School Supervision. (3) M.T.Th.F., 11:00; OO-30. (J. P. Anderson)	
EDAD 217. Administration and Supervision in the Elementary School. (3) M.T.Th.F., 11:00; OO-303. (Bennett)	
EDAD 225. School Public Relations. (3) Daily, 8:00; OO-221. (van Zwoll)	
EDAD 227. Public School Personnel Administration. (3) Daily, 9:30; FF-17. (van Zwoll)	
EDAD 234. The School Curriculum. (3) Daily, 9:30; OO-321. (Hovet)	
EDAD 235. Principles of Curriculum Development. (3) Section 1 — M.T.Th.F., 8:00; OO-026. Section 2 — M.T.Th.F., 12:30; RR-114. (Bennett)	
EDAD 249. Seminar in Educational Administration and Supervision. (3) M.T.Th.F., 11:00; FF-16. (Goldman)	
EDAD 399. Thesis Research. (1-6) Arranged. (Staff)	
EDAD 499. Dissertation Research. (1-6) Arranged. (Staff)	
GENERAL EDUCATION	
EDUC 102. History of Education in the United States. (3) Daily, 8:00; OO-220. (Male)	
EDUC 107. Philosophy of Education. (3) M.T.Th.F., 9:30; C-76. (Agre)	
EDUC 110. Human Development and Learning. (6) Section 1 — Daily, 8:00; A-258. (In-service teachers only) Section 2 — Daily, 9:30; C-79. (regular undergraduates) (Hardy) (Hunt)	
EDUC 111. Foundations of Education. (3) Section 1 — M.T.Th.F., 8:00; A-321. (Hopkins) Section 2 — M.T.Th.F., 8:00; OO-303. (Lindsay) Section 3 — M.T.Th.F., 9:30; C-80. (Hopkins)	

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Section 4 — M.T.Th.F., 9:30; OO-303. Section 5 — M.T.Th.F., 9:30; C-90. Section 6 — M.T.Th.F., 11:00; OO-301. Section 7 — Daily, 11:00; C-76.	(Huden) (Lindsay) (Agre) (Male)
EDUC 146. Quantitative Research Methods I. (3) Section 1 — Daily, 8:00; A-50. Section 2 — Daily, 9:30; C-98. Section 3 — Daily, 11:00; OO-223. Section 4 — Daily, 12:30; A-50. Section 5 — M.T.Th.F., 9:30; J-14. Section 6 — M.T.Th.F., 11:00; C-79. Section 7 — Daily, 12:30; OO-223. Section 8 — M.T.Th.F., 8:00; A-324. Section 9 — M.T.Th.F., 9:30; J-134. Section 10 — T.Th., 7:00-9:50; OO-223.	(Staff) (Staff) (Johnson) (Rogers) (Dayton) (Staff) (Giblette) (Schafer) (Stunkard) (Staff)
EDUC 147. Audiovisual Education. (3) Section 1 — Daily, 8:00; OO-004. Section 2 — Daily, 9:30; OO-004. Section 3 — Daily, 11:00; OO-004.	(Staff) (Staff) (Hempstead)
EDUC 148. Instructional Media Services. (3) Daily, 11:00; C-80.	(Wedberg)
EDUC 149. Programmed Instruction. (3) Daily, 9:30; J-122.	(Perrin)
EDUC 151. Statistical Methods in Education. (Section 1 — M.T.Th.F., 8:00; OO-223. Section 2 — M.T.Th.F., 12:30; OO-036.	(Dayton) (Staff)
EDUC 155. Laboratory Practice in Reading. (3) Prerequisite, consent of professor. Arranged.	(Waynant)
EDUC 157. Corrective Remedial Reading Instruc- Section 1 — Daily, 12:30; OO-127. Section 2 — T.Th., 7:00-9:50 p.m.; OO-127.	ction. (3) (Waynant) (Wilson)
EDUC 160. Educational Sociology. (3) M.T.Th.F., 11:00; C-81.	(Huden)

EDUC 187. Field Experience in Education.* (1-4)

A. Adult Education

B. Social Foundations

C. Measurement and Statistics

Prerequisites, at least six semester hours in education at the University of Maryland plus such other prerequisites as may be set by the major area in which the experience is to be taken. Planned field experience may be provided for selected graduate students who have had teaching experience and whose application for such field experience has been approved by the education faculty. Field experience is offered in a given area to both major and non-major students. Arranged. (Staff)

Special Problems in Education, (1-3)

Prerequisite, consent of instructor. Available only to mature students who have definite

^{*}Note: The total number of credits which a student may earn in EDUC 187, EDUC 224, and EDUC 287 is limited to a maximum of twenty (20) semester hours.

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.

(Staff)

EDUC 189A. Supervision of Student Teachers. (3) Section 1 - Daily, June 24-July 15, 9:30-3:30; J-150. Section 2 — Daily, June 24-July 15. 9:30-3:30; J-153.

(Collier) (Collins)

Workshop in Instructional Materials. (3) June 24-July 14; Daily, 1:00-4:30; OO-CO4.

(Chisholm, Wedberg,)

Anaylsis and Modification of Teaching Behavior. (3) EDUC 189C. June 23-July 11; Daily, 9:30-3:30.

(Young)

EDUC 189M. Workshop for Teachers of Disadvantaged Youth:

Teaching Strategies for Disadvantaged Children. (3) June 24-July 15; Daily, 9:30-3:30; J-140.

(Barbour)

EDUC 202. The Junior College. (3) Daily, 12:30; OO-221.

(Kelsey)

EDUC 203. Problems in Higher Education. (3) Daily, 2:00; OO-221.

(Kelsey)

Apprenticeship in Education.* (1-9)

A. Adult Education

B. Social Foundations

C. Measurement and Statistics

EDUC 245. Introduction To Research. (2) M.T.Th.F., 12:30; GG-202.

(Hovet)

EDUC 246. Quantitative Research Methods II. (3)

Section 1 - M.T.Th.F., 8:00; OO-307. Section 2 - Daily, 12:30; GG-310.

(Stunkard) (Johnson)

EDUC 251. Intermediate Statistics in Education. M.T.Th.F., 9:30; OO-036.

(Schafer)

Advanced Laboratory Experiences in Reading Instruction. (3) (Sullivan) Prerequisite, consent of professor. Daily. Arranged.

EDUC 256. Advanced Laboratory Experiences in Reading Instruction. (3) Prerequisite, consent of professor. Daily. Arranged. (Brigham)

EDUC 257. Diagnosis and Remediation of Reading Disabilities. (3) Daily, 2:00; OO-223. (Wilson)

Measurement in Pupil Appraisal. (3) (Giblette) Daily, 9:30; OO-307.

EDUC 280. Research Methods and Materials. (2) M.T.Th.F., 11:00; C-90. (Rogers)

*Apprenticeships in the major area of study are available to selected students whose application for an apprenticeship has been approved by the Education faculty. Prerequisites; teaching experience, a master's degree in education, and at least six semester hours in education at the University of Maryland. Arranged. (Staff)

- EDUC 287. Internship in Education. ** (3-6)
 - A. Adult Education
 - B. Social Foundations
 - C. Measurement and Statistics
- EDUC 288. Special Problems in Education. (1-6)

Thesis Research. (1-6)

Master's, advanced graduate specialist, 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 is will be done. Arranged.

(Staff)

EDUC 290. Doctoral Seminar. (1)

Section 1 — M., 1:30-4:00; OO-030.

(Rogers) (Hovet)

Section 2 — W, 1:30-4:00; OO-030.

EDUC 399.
Arranged.

(Staff)

EDUC 499. Dissertation Research. (1-6)

(Staff)

INDUSTRIAL EDUCATION

EDIN 028. Electricity-Electronics I. (3) Daily, 8:00; P-212.

(Bradley)

EDIN 034. Graphic Arts I. (3)

Daily, 9:30; P-201.

(DuVall)

EDIN 044. Graphic Arts II. (3) Daily, 9:30; P-201.

(DuVall)

EDIN 050. Methods of Teaching. (3)

Section 1 — M.T.Th.F., 8:00; P-116.

(Anderson)

Section 2 — M.T.Th.F., 9:30; P-116. (Sections 1 and 2 — T & 1 Workshop only)

(Cooksey)

Section 3 — M.T.Th.F., 11:00; P-116.
EDIN 069. Machine Shop Practice I. (3)

Daily, 8:00; P-126.

(Hackler)
(Bailey)

(Bailey)

EDIN 084. Organized and Supervised Work Experience. (3)
Arranged. (Campbell, Crosby, Mietus, Tierney, Kimmel, Gelina)

EDIN 089. Machine Shop Practice II. (2) Daily, 8:00; P-126.

e II. (2)

EDIN 115. Research and Experimentation in Industrial Arts. (3)
Daily, 9:30; P-100. (Maley)

**Internships in the major area of study are available to selected students who have teaching experience. The following groups of students are eligible: (a) any student who has been advanced to candidacy for the doctor's degree; and (b) any student who receives special approval by the education faculty for an internship, provided that prior to taking an internship, such student shall have completed at least sixty semester hours of graduate work, including at least six semester hours in education at the University of Maryland. The internship must be taken in a school situation different from the one where the student is regularly employed. Arranged.

EDIN 124. Organized and Supervised Work Experience. (3)

Arranged. (Campbell, Crosby, Gettle, Kim	mel, Gelina)
EDIN 150. Training Aids Development. (3) M.T.Th.F., 8:00; P-306.	(Gettle)
EDIN 157. Tests and Measurements. (3) M.T.Th.F., 8:00; P-214.	(Stough)
EDIN 164. Laboratory Organization and Management. (3) Section 1 — M.T.Th.F., 9:30; P-127. Section 2 — M.T.Th.F., 11:00; P-127. (Sections 1 and 2 — T & I Workshop only) Section 3 — Daily, 8:00; P-127.	(Anderson) (Beatty) (Cooksey)
EDIN 165. Modern Industry. (3) Daily, 11:00; P-306.	(Harrison)
EDIN 166. Educational Foundations of Industrial Arts. (2) M.T.Th.F., 9:30; P-214.	(Beatty)
EDIN 167. Problems in Occupational Education. (3) Daily, 8:00; P-208.	(Chambliss)
EDIN 169. Occupational Analysis and Course Construction. (3) Section 1 — M.T.Th.F., 8:00; P-306B. Section 2 — M.T.Th.F., 9:30; P-306B. (Section 1 and 2 — T & I Workshop only) Section 3 — M.T.Th.F., 11:00; P-306B.	(Bradley) (Bailey) (Stough)
EDIN 171. History and Principles of Vocational Education. (3) M.T.Th.F., 9:30; P-220.	Luetkemeyer)
EDIN 175. Recent Technological Developments in Products and Processes. (3) M.T.Th.F., 11:00; P-208.	(Mietus)
EDIN 187. Field Experience in Education. (1-4) See EDUC 187 for description. Arranged.	(Staff)
EDIN 188. Special Problems in Education. (1-3) See EDUC 188 for description. Arranged.	(Staff)
EDIN 189D. Workshop in Vocational Education. (1) Section 1 — W., 9:30; P-210. Section 2 — W., 1:30; P-210. Section 3 — W., 8:00; P-210.	(Hackler) (Hackler) (Hackler)
EDIN 189R. Trade Advancement Workshop. (1-6) Arranged.	(Staff)
EDIN 214. School Shop Planning and Equipment Selection. (3) Daily, 9:30; P-221.	(Tierney)

EDIN 220. Organization, Administration and Supervision of Vocational

EDIN 250. Teacher Education in Industrial Arts. (3)

Education. (2)

M.T.Th.F., 11:00; P-221.

Daily, 8:00; P-221.

(Chambliss)

(Harrison)

(Goering)

(Goering)

(Flatter)

(Morgan)

(Kyle) (Kurtz)

EDIN 288. Special Problems in Education. (1-6) See EDUC 288 for description.	(Staff)
EDIN 399. Thesis Research. (1-6) Arranged.	(Staff)
EDIN 499. Dissertation Research. (1-6) Arranged.	(Staff)
INSTITUTE FOR CHILD STUDY	
EDHD 105. Adolescent Development. (3) Section 1 — Daily, 8:00; OO-225. Section 2 — Daily, 9:30; OO-028.	(Flatter) (Gardner)
EDHD 108. Child Growth and Development. (3) Section 1 — Daily, 9:30; O-240.	(Dittmann)
EDHD 112. Scientific Concepts in Human Development. (3) Section 1 — June 22-July 10; daily, 12:30-3:00; OO-220. Section 2 — June 22-July 10; daily, 12:30-3:00; OO-228. Section 3 — June 22-July 10; daily, 12:30-3:00; RR-016. Section 4 — June 22-July 10; daily, 12:30-3:00; RR-020. Section 5 — June 22-July 31; daily, 8:00-3:00; O-236. Section 6 — June 22-July 10; daily, 12:30-3:00;	(Bolea) (Green) (Eliot) (Hamby) (Matteson) (Dittman)
EDHD 113. Laboratory in Behavior Analysis. (3) (EDHD 112, Section 5 and EDHD 113 must be taken concurrently) June 22-July 31; daily, 8:00-3:00; O-236.	(Matteson)
EDHD 114. Scientific Concepts in Human Development. (3) Section 1 — July 13-July 31; daily, 12:30-3:00; OO-220. Section 2 — July 13-July 31; daily, 12:30-3:00; OO-228. Section 3 — July 13-July 31; daily, 12:30-3:00; RR-016. Section 4 — July 13-July 31; daily, 12:30-3:00; RR-020.	(Gardner) (Hatfield) (Green) (Perkins)
EDHD 145. Guidance of Young Children. (3) Section 1 — Daily, 8:00; FF-17. Section 2 — Daily, 11:00; OO-307.	(Broome) (Broome)
EDHD 187. Field Experience in Education. (1-4) See EDUC 187 for description.	(Staff)
EDHD 188. Special Problems in Education. (1-3) See EDUC 188 for description. Arranged.	(Staff)
EDHD 189A. Workshop: Child Study Leaders. (2) June 22-July 3; daily, 8:00; Arranged	(Goering)
EDHD 189C. Workshop: Application of Human Development P	Principles. (2)

Workshop: Action Research in Human Development. (2)

EDHD 200. Introduction to Human Development and Child Study. (3)

July 6 — July 17; daily, 8:00; Arranged.

Aug. 3-Aug. 14; daily, 8:00; Arranged.

Section 1 — June 24-July 31; daily, 8:00; TH-117.

Section 2 — June 24-July 31; daily, 11:00; OO-028.

Section 3 — June 24-July 31; daily, 9:30; FF-20. Section 4 — June 24-Aug. 14; T.Th., 7:00 p.m.; OO-220.

EDHD 189E.

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Biological Bases of Behavior. (3)
    Section 1 - Daily, 8:00; OO-028.
                                                                            (Chapin)
    Section 2 - Daily, 11:00; T-102.
                                                                            (Chapin)
EDHD 202.
               Social Bases of Behavior. (3)
    Section 1 — Daily, 8:00; FF-20.
                                                                           (Rogolsky)
                                                                         (McDaniels)
    Section 2 — Daily, 9:30; OO-030.
EDHD 203.
               Integrative Bases of Behavior. (3)
                                                                           (Rogolsky)
    Daily, 11:00; OO-105.
EDHD 210.
              Affectional Relationships and Processes in Human Develop-
  ment. (3)
                                                                              (Kyle)
    Daily, 8:00; OO-222.
EDHD 211.
               Peer Culture and Group Processes in Human Development. (3)
    Daily, 9:30; FF-21.
                                                                            (Flatter)
EDHD 212.
               Advanced Scientific Concepts in Human Development. (3)
    Section 1 — June 22-July 10; daily, 12:30-3:00; OO-220.
                                                                             (Bolea)
    Section 2 — June 22-July 10; daily, 12:30-3:00; OO-028.
                                                                             (Green)
    Section 3 — June 22-July 10; daily, 12:30-3:00; RR-016.
                                                                              (Eliot)
    Section 4 — June 22-July 10; daily, 12:30-3:00; RR-020.
                                                                            (Hamby)
    Section 5 — June 22-July 31; daily, 8:00-3:00; OO-236.
                                                                          (Matteson)
    Section 6 - June 22-July 10; daily, 12:30-3:00;
                                                                           (Dittman)
               Advanced Laboratory in Behavior Analysis. (3)
    (EDHD 212, Section 5 and EDHD 213 must be taken concurrently)
    June 22-July 31; daily, 8:00-3:00; OO-236.
                                                                          (Matteson)
EDHD 214.
              Advanced Scientific Concepts in Human Development. (3)
                                                                           (Gardner)
    Section 1 -- July 13-July 31; daily, 12:30-3:00; OO-220.
                                                                           (Hatfield)
    Section 2 — July 13-July 31; daily, 12:30-3:00; OO-028.
                                                                             (Green)
    Section 3 - July 13-July 31; daily, 12:30-3:00; RR-016.
    Section 4 — July 13-July 31; daily, 12:30-3:00; RR-020.
                                                                            (Perkins)
EDHD 221.
               Learning Theory and the Educative Process 1. (3)
                                                                         (McDaniels)
    Section 1 — Daily, 8:00; FF-19.
                                                                            (Perkins)
    Section 2 — Daily, 9:30; J-10.
    Section 3 - Daily, 11:00; F-103.
                                                                          (Milhallan)
    Section 4 — Daily, 12:30; FF-19.
                                                                          (Milhollan)
EDHD 222.
               Learning Theory and the Educative Process II. (3)
    Daily, 11:00; F-104.
                                                                              (Eliot)
EDHD 224.
               Apprenticeship in Education. (1-9)
    See EDUC 224 for description.
               Seminars in Special Topics in Human Development. (3)
    (Research Design and Techniques in Human Development)
    Daily, 11:00; OO-026.
                                                                             (Bolea)
EDHD 287.
               Internship in Education. (3-16)
    See EDUC 287 for description.
EDHD 288.
               Special Problems in Education, (1-6)
    See EDUC 288. Arranged.
                                                                              (Staff)
EDHD 399.
               Thesis Research. (1-6)
    Arranged.
                                                                              (Staff)
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(Staff)

EDHD 499. Dissertation Research. (1-6) Arranged.	(Staff)
LIBRARY SCIENCE EDUCATION	
EDLS 120. Introduction to Librarianship. (3) June 24-Aug. 14; T.Th., 9:30-12:30; OO-125.	(Anderson)
EDLS 122. Basic Reference and Information Sources. (3) June 24-Aug. 14; W.F., 9:30-12:20; OO-125.	(Myers)
EDLS 126. Cataloging and Classification of Library Materials. (3) June 24-Aug. 14; T.Th., 2:00-4:50; OO-307.	(Myers)
EDLS 132. Library Materials for Youth. (3) June 24-Aug. 14; M.W., 2:00-4:50; OO-307.	(Anderson)
MUSIC EDUCATION	
EDMU 116. Music in Early Childhood Education. (3) Prerequisite, MUSC 016. Section 1 — (General classroom teachers only); June 24-July 15; daily, NN-205.	12:30-3:20; (McCall)
Section 2 — (Music Specialists only); July 15-Aug. 5; daily, 12:30-3:20	
EDMU 125. Creative Activities in The Elementary School. (3) Prerequisite, music methods or teaching experience. June 24-July 15; daily, 12:30-3:20; NN-301.	(Shelley)
EDMU 163. Band and Orchestra Techniques and Administration. Prerequisites, MUSC 061-068 and 161. June 24-Aug. 5; daily, 8:00; NN-202.	(3) (Gallagher)
EDMU 176. Special Problems in The Teaching of Instrumental M	usic,
Strings. (3) Prerequisite, MUSC 061-068 or the equivalent. June 24-Aug. 5; daily, 9:30; NN-116.	(Berman)
EDMU 200. Research Methods in Music and Music Education. (3 June 24-Aug. 5; daily, 9:30; NN-301.) (Grentzer)
EDMU 205. Vocal Music in Elementary Schools. (3) June 24-Aug. 5; daily, 9:30; NN-208.	(Blum)
EDMU 209. Seminar in Instrumental Music. (3) June 24-Aug. 5; daily, 11:00; NN-301.	(Taylor)
EDSE 243-Music. Theory and Research in Secondary Education. (June 24-Aug. 5; daily, 11:00; NN-202.	3) (Grentzer)
EDMU 399. Thesis Research. (1-6) Arranged.	(Staff)
EDMU 499. Dissertation Research. (1-6)	

Arranged.

SECONDARY EDUCATION

- EDSE 101. Problems in Teaching Office Skills. (3)

 Daily, 11:00; OO-401. Taught in conjunction with Typewriting Demonstration Laboratory.

 (O'Neill)
- EDSE 102. Methods and Materials in Teaching Bookkeeping and Related Subjects. (3)
 Daily, 8:00; OO-414. (Mead)
- EDSE 114-115. Financial and Economic Education. (3, 3)
 Daily, 8:30-3:30; Q-27. (Anderson)
- EDSE 123. Field Experiences; Distribution. (3)

 First and second semester and summer session. Supervised work experiences in a distributive occupation to apply theory of distribution to the function of distribution as a basis for vocational teaching and guidance. By individual arrangement with the adviser.

 (Anderson)
- EDSE 125. Problems in Teaching Home Economics. (3)
 Daily, 9:30; OO-312. (Lemmon)
- EDSE 130. The Junior High School. (3)
 Daily, 9:30; NN-320. (Adkins)
- EDSE 133. Methods of Teaching Social Studies in Secondary Schools. (3) Daily, 2:00; OO-220. (Wirth)
- EDSE 137. Methods of Teaching Mathematics in Secondary Schools. (3)
 Daily, 2:00; OO-312. (Davidson)
- EDSE 138. Methods of Teaching Science in Secondary Schools. (3) Daily, 8:00; OO-210. (Maccini)
- EDSE 140. Curriculum, Instruction, and Observation: Art. (3)
 Daily, 9:30; OO-105. (Langley)
- EDSE 141. Methods of Teaching English in Secondary Schools. (3) Daily, 2:00; OO-127. (Woolf)
- EDSE 142. Teaching the Audio-Lingual Skills in the Foreign Languages. (3) Daily, 2:00; OO-125. (Staff)
- EDSE 145. Principles and Methods of Secondary Education. (3)
 Section 1 Daily, 8:00; FF-18.
 Section 2 Daily, 9:30; OO-220. (Funaro)
- EDSE 153. Teaching Reading in Secondary Schools. (3)
 Daily, 11:00; OO-220. (Brigham)
- EDSE 188. Special Problems in Education. (1-3)
 See EDUC 188. Arranged. (Staff)
- EDSE 189D. Workshop in Team Teaching. (3)
 June 24-July 10; daily, 9:30-3:30; J-18. (Staff)
- EDSE 189J. Workshop in Technological Innovations in Business Education. (3)

 June 24-July 10; daily, 9:30-3:30; OO-401. (Mead)

(Seidman)

(Staff)

EDSE 189M. Home Economics Education Workshop. (3) June 24-July 10; daily, 9:30-3:30; J-104.	(Staff)
EDSE 189N. Workshop for Speech Teachers. (3) June 24-July 10; daily, 9:30-3:30; J-131.	(Wolvin)
EDSE 205. Seminar in Business Education. (2) Daily, 11:00-12:20; OO-414.	(Peters)
EDSE 239. Seminar in Secondary Education. (2) Daily, 8:00; FF-21.	(Adkins)
EDSE 240A. Trends in Secondary School Curriculum: English. (3) Daily, 11:00; OO-036.	(Woolf)
EDSE 240E. Trends in Secondary School Curriculum: Social Studies. Daily, 2:00; OO-225.	(3) Grambs)
EDSE 240G. Trends in Secondary School Curriculum: Urban Studies. Daily, 12:30; AA-8.	(3) Grambs)
EDSE 243B. Theory and Research in Secondary Education: Speech. (Daily, 11:00; LL-106.	(3) (Flores)
EDSE 256. Curriculum Development in Business Education. (3) Daily, 9:30; OO-414.	(Peters)
EDSE 261. Trends in the Teaching and Supervision of Home Economi Daily, 8:00; OO-312. (L.	cs. (3) emmon)
EDSE 288. Special Problems in Education. (1-6) See EDUC 288. Arranged.	(Staff)
EDSE 399. Thesis Research. (1-6) Arranged.	(Staff)
EDSE 499. Dissertation Research. (1-6) Arranged.	(Staff)
SPECIAL EDUCATION	,_,_,
EDSP 170. Introduction To Special Education. (3) Daily, 8:00; OO-125.	(Huber)
B. Giffed. Daily, 9:30; A-324.	Jacobs) (Simms) (Simms)
C. Powenskii alliu Inin alius I. D. 11. O.OO. 11. 10.0	(Hoops) (Simms)
EDSP 173. Curriculum For Exceptional Children. (3) A. Mentally Retarded. Daily, 8:00; A-164.	(Hoops)
EDSP 175. Education of The Slow Learner. (3)	

Daily, 11:00; OO-327.

EDSP 188. Special Problems in Education. (1-3) See EDUC 188 for description. Arranged.

EDSP 200. Exceptional Children and Youth. (3) Daily, 8:00; A-166. (See	eidman)
EDSP 235. Problems in The Education of Children With Emotional Disturbances. (3) Daily, 11:00; A-321.	(Huber)
EDSP 288. Special Problems in Educations. (1-3) See EDUC 288 for description. Arranged.	(Staff)
EDSP 399. Thesis Research. (1-6)	(Staff)
EDSP 499. Dissertation Research. (1-6)	(Staff)
ENGINEERING	
CHEMICAL ENGINEERING	
ENCH 015. Chemical Engineering Analysis. (2) Prerequisite, consent of the Department. June 24-July 18; daily, arranged; U-112.	(Staff)
ENCH 050. Engineering Thermodynamics. (3) Prerequisite, consent of the Department. July 20-Aug. 14; daily; arranged; U-112.	(Staff)
ENCH 137. Chemical Engineering Laboratory. (3) M.W., Arranged; U-115A.	(Staff)
ENCH 165. Research. (2 or 3) Prerequisite, consent of the Department. Arranged.	(Staff)
ENCH 247A. Special Problems in Chemical Engineering. (3) Arranged.	(Staff)
ENCH 247B. Special Problems in Bioengineering. (3) Arranged.	(Staff)
ENCH 247F. Special Problems in Polymer Science. (3) Arranged.	(Staff)
ENCH 314. Special Problems in Nuclear Engineering. (2 or 3) Arranged.	(Staff)
ENCH 398. Special Problems in Engineering Materials. (Variable Cre-Arranged.	dit) (Staff)
ENCH 399A. Thesis Research in Chemical Engineering. (1-6) Arranged.	(Staff)
ENCH 399B. Thesis Research in Nuclear Engineering. (1-6) Arranged.	(Staff)
ENCH 399C. Thesis Research in Engineering Materials. (1-6) Arranged.	(Staff)
ENCH 499A. Dissertation Research in Chemical Engineering. (1-6) Arranged.	(Staff)

- ENCH 499B. Dissertation Research in Nuclear Engineering. (1-6)
 Arranged. (Staff)
- ENCH 499C. Dissertation Research in Engineering Materials. (1-6)
 Arranged. (Staff)

CIVIL ENGINEERING

- ENCE 050. Fundamentals of Engineering Materials. (3)

 Prerequisite, ENES 020 or concurrent registration. M.T.F., 8:00-9:00. Laboratory Th.,
 8:00-11:00; J-170. (Wedding.)
- ENCE 090. Engineering Survey Measurements. (3)
 Corequisite, MATH 020 with consent of instructor. Open only to students enrolled in the College of Engineering. June 9-23; daily, 8:00-5:00; J-154, J-156. (Garber)
- ENCE 399. Thesis Research. (1-6)
 Arranged. (Staff)
- ENCE 499. Dissertation Research. (1-6)
 Arranged. (Staff)

ELECTRICAL ENGINEERING

- ENEE 090. Circuit Analysis I. (4)
 Corequisite, MATH 022, PHYS 032, ENEE 091. Required of Sophomores in Electrical Engineering. Daily, 8:00; J-128. (Staff)
- ENEE 091. Circuit Laboratory I. (1)
 Corequisite, ENEE 090. Required of Sophomores in Electrical Engineering. Arranged;
 first meeting Wed., June 24, 1970; S-BLDG. 6. (Staff)
- ENEE 104. Introduction To Switching System Design. (3)
 Prerequisites, MATH 021, ENEE 080 or equivalent. M.T.Th.F. 11:00; J-104. (Staff)
- ENEE 122. Electronic Circuits I. (4)
 Prerequisite, ENEE 120. Required of Juniors in Electrical Engineering. Daily, 8:00; J-104.
- ENEE 123. Electronics Laboratory I. (1)
 Corequisite, ENEE 122. Required of Juniors in Electrical Engineering. Arranged; first meeting Wed., June 24, 1970; S-BLDG. Laboratory fee, \$10.00. (Staff)
- ENEE 130. Engineering Electromagnetics I. (3)
 Prerequisites, MATH 022, PHYS 032, ENEE 090, with an average of C or better in
 MATH 021, 022, PHYS 031, 032 and ENEE 090. Required of Juniors in Electrical
 Engineering. M.T.Th.F., 9:30; J-104. (Staff)
- ENEE 140. Transducers and Electrical Machinery. (3)
 Prerequisites, ENEE 120, ENEE 132. Corequisite, ENEE 141. Required of Seniors in
 Electrical Engineering. M.T.Th.F., 9:30; J-128. (Staff)
- ENEE 141. Transducers and Electrical Machinery Laboratory. (1)
 Corequisite, ENEE 140. Required of Seniors in Electrical Engineering. Arranged; first meeting Wed., June 24, 1970; S-BLDG. Laboratory fee, \$10.00. (Staff)
- ENEE 142. Engineering Probability. (2)
 Prerequisites, MATH 022, ENEE 090. Required of Electrical Engineering majors. M.W.F., 8:00; J-122. (Staff)

- ENEE 150. Network Synthesis. (3)
 Prerequisite, ENEE 120. M.T.Th.F., 11:00; J-128. (Stoff)
- ENEE 154. Feedback Control Systems. (3)
 Prerequisites, MATH 066, ENEE 122. M.T.Th.F., 8:00; J-234. (Staff)
- ENEE 181. Projects in Electrical Engineering. (1-3)
 Prerequisite, Senior standing in Electrical Engineering and approval of the proposed
 project by the instructor prior to registration. Arranged. (Staff)
- ENEE 218. Signal Analysis and Noise. (3)
 Prerequisite, ENEE 158 or equivalent. M.T.Th.F., 8:00; J-226. (Staff)
- ENEE 223. Advanced Topics in Electrical Engineering. (3)
 Prerequisite, permission of instructor. M.T.Th.F., 3:30; J-104. (Staff)
- ENEE 250. Mathematics For Electromagnetism. (3)
 Prerequisite, undergraduate preparation in electromagnetic theory and advanced calculus. M.T.Th.F., 8:00; J-131. (Staff)
- ENEE 399. Thesis Research. (1-6)
 Arranged. (Staff)
- ENEE 499. Dissertation Research. (1-6)
 Arranged. (Staff)

ENGINEERING SCIENCES

- ENES 001. Introduction To Engineering Science. (3)
 Prerequisite, concurrent MATH 018. M., 8:00-10:50; T.Th.F., 8:00; J-382. (Puckett)
- ENES 010. Mechanics. (3)
 Prerequisite, ENES 001, concurrent MATH 020. M.T.Th.F., 8:00; J-378. (Hayleck)
- ENES. 021. Dynamics. (3)
 Prerequisite, ENES 010, concurrent MATH 021, PHYS 030. M.T.Th.F., 8:00; J-360.
 (Cunniff)
- ENES 080. Algorithmic Analysis and Computer Programming. (2)
 Corequisites, MATH 021, ENES 083. Required of Sophomores in Electrical Engineering.
 M.W.F., 9:30-10:50; J-226. (Staff)
- ENES 083. Digital Computer Laboratory. (1)
 Corequisite, ENES 080. Required of Sophomores in Electrical Engineering. Arranged;
 first meeting Wed., June 24, 1970; J-128. (Staff)

MECHANICAL ENGINEERING

ENME 060. Thermodynamics. (3)
Prerequisite, PHYS 031 and MATH 021. M.T.Th.F., 9:30; J-360. (Tsui)

HOME ECONOMICS

FAMILY AND COMMUNITY DEVELOPMENT

FMCD 050. Decision Making in Family Living. (3)
June 24-July 17; daily, 9:00-11:30; Home Management Center. (Churaman)

FMCD 143. Consumer Problems. (3) July 27-Aug. 14; daily, 1:00-3:30; Home Management Center	(Garrison)
FMCD 131. Family Crises and Disintegration. (3) June 24-July 17; daily, 1:00-3:30; Home Management Center	(Olson)
HOEC 202. Integrative Aspects of Home Economics. (3) June 24-July 17; daily, 9:00-11:30; Home Management Center	(Lemmon)
FOODS, NUTRITION AND INSTITUTION ADMINISTRATION	
FOOD 399. Thesis Research. (1-6) Arranged.	(Staff)
FDNT 005. Food and Nutrition of Individuals and Families. (3) Lecture, M.F., 9:30; H-222. Laboratory, T.Th., 9:30-11:30; H-223.	(Staff) (Staff)
IADM 140. Practicum in Institution Administration. (3) Prerequisite, 5 credits in IADM. Arranged.	(Prather)
IADM 399. Thesis Research. (1-6) Arranged.	(Staff)
NUTR 150. History of Nutrition. (2) Prerequisite, Basic Nutrition. June 24-July 31; M.T.Th.F., 8:00; H-222.	(Ahrens)
NUTR 399. Thesis Research. (1-6) Arranged.	(Staff)
HOUSING AND APPLIED DESIGN	
APDS 001. Fundamentals of Design. (3) Daily, 8:00; H-101.	(Roper)
APDS 010. Presentation Techniques. (3) Daily, 9:30; H-101.	(Staff)
CRAF 002. Recreational Crafts. (2) Daily, 9:30; H-005.	(Roper)
CRAF 020. Ceramics I. (3) Section 1 — Daily, 9:30; H-102. Section 2 — Daily, 1:00; H-102.	(Schmidt) (Schmidt)
CRAF 030. Metalry I. (3) Section 1 — Daily, 9:30; H-9. Section 2 — Daily, 1:00; H-9.	(Nelson)
CRAF 102. Creative Crafts. (3) Daily, 9:30; H-005.	(Roper)
CRAF 120. Ceramics II. (3) Section 1 — Daily, 9:30; H-102. Section 2 — Daily, 1:00; H-102.	(Schmidt) (Schmidt)
CRAF 130. Metalry II. (3) Section 1 — Daily, 9:30; H-9.	

78 • University of Maryland at College Park CRAF 190a, 190b. Individual Problems in Crafts. (3-4) Arranged. (Open only to advanced students who, with guidance, can work independ-(Schmidt, Nelson) ently.) HSAD 148. Readings in Housing. (3) June 24-July 22; daily, 9:30-12:30; H-101. (Shearer) Individual Study in Housing and/or Interior Design. (3-4) M., 1:00. Arranged. (Open only to advanced students who, with guidance, can work independently, with consent of instructor only.) (Sheaver) Special Topics in Housing and Applied Design. (3) M., 1:00. Arranged. With consent of instructor only. (Sheaver) TEXTILES AND CLOTHING CLTH 011. Experimental Clothing Design. (2) Laboratory, M.F., 8:00-10:50; H-132. (Pledger) TXCL 399. Thesis Research. (1-6) Arranged. (Staff) LIBRARY AND INFORMATION SERVICES LBSC 202. Introduction To Reference and Bibliography. (3) June 24-Aug. 14; daily, 8:00-9:00; L-405. (Warner) LBSC 204. Communication and Libraries. (3) June 24-Aug. 14; daily, 10:00-11:00; L-405. (Kidd) LBSC 206. Organization of Knowledge in Libraries I. (3) June 24-Aug. 14; daily, 9:00-10:00; L-405. (Wellisch) LBSC 206. Organization of Knowledge in Libraries I. (3) June 24-Aug. 14; daily, 11:00-12:00; L-405. (Foskett) LBSC 207. Organization of Knowledge in Libraries II. (3) June 24-Aug. 14; daily, 9:00-10:00; L-100A. (Batty) LBSC 208. Fundamentals of Documentation. (3) June 24-Aug. 14; daily, 9:00-10:00; L-100B. (Foskett) History of Libraries and Their Materials. (3) June 24-Aug. 14; daily, 8:00-9:00; L-100A. (Colson) Introduction To Information Retrieval Systems. (3) LBSC 210. June 24-Aug. 14; daily, 11:00-12:00; L-100B. (Batty) Literature and Research in The Social Sciences. (3)

(Warner)

(MacLeod)

(Needham)

(Wellisch)

June 24-Aug. 14; daily, 11:00-12:00; L-100A.

June 24-Aug. 14; daily, 9:00-10:00; arranged.

June 24-Aug. 14; daily, 8:00-9:00; G-109A.

June 24-Aug. 14; daily, 1:00-2:00; L-100B.

LBSC 222. Children's Literature and Materials. (3)

Problems of Special Materials. (3)

Construction and Maintenance of Index Languages. (3)

(Johnson)

LBSC 255. Seminar on Manuscript Collections. (3) June 24-Aug. 14; daily, 10:00-11:00; L-100B.	(Colson)
LBSC 264. Seminar in The School Library. (3) June 24-Aug. 14; daily, 10:00-11:00; L-100A.	(Liesener)
LBSC 271. Advanced Reference Service. (3) June 24-Aug. 14; daily, 11:00-12:00; LL-204.	(Needham)
LBSC 277. International and Comparative Librarianship. (3) June 24-Aug. 14; daily, 8:00-9:00; L-160B.	(Langridge)
LBSC 290A. Information Science Theory and Models. June 24-Aug. 14; daily, 2:00-3:00; L-100B.	(Goffman)
LBSC 290B. Analytical Methods. (3) June 24-Aug. 14; daily, 1:00-2:00; L-100A.	(Olson)
LBSC 290C. Universe of Knowledge. (3) June 24-Aug. 14; daily, 2:00-3:00; L-100A.	(Langridge)
LBSC 290D. Metropolitan Library Services. (3) June 24-Aug. 14; daily, 1:00-2:00; L-405.	(Reid)
GENERAL EDUCATION	
GNED 060. Introduction To Interdisciplinary Urban Study. (3) Lecture, M.T.Th., 12:30; Z-171. Laboratory, Section 1, T., 2:00-4:50; MM-413. Laboratory, Section 2. Th., 2:00-4:50; MM-413.	(Nikkel) (Nikkel) (Nikkel)
PHYSICAL EDUCATION, RECREATION AND HE	ALTH
HEALTH EDUCATION	
HLTH 005. Science and Theory of Health. (2) Section 1 — M.T.Th.F., 8:00; AA-8. Section 2 — M.T.Th.F., 9:30; AA-8. Section 3 — M.T.Th.F., 11:00; AA-8. Section 4 — M.T.Th.F., 12:30; Q-104.	(Hart) (Hart) (Bakhaus) (Staff)
HLTH 040. Personal and Community Health. (3) Daily, 12:30; Q-28.	(Miller)
HLTH 070. Safety Education. (3) Daily, 8:00; AA-9.	(Bakhaus)
HLTH 105. Driver Education and Traffic Safety I. (3) Daily, 8:00; GG-201.	(Tompkins)
HLTH 145. Driver Education and Traffic Safety II. (3) Daily, 9:30; GG-201.	(Tompkins)
HLTH 150. Health Problems of Children and Youth. (3) Daily, 11:00; AA-9.	(Miller)
HLTH 188. Children's Physical Developmental Clinic. (1-4) Must have junior standing and prior permission of instructor. Daily, arran	nged; W-131.

HLTH 189K. Current Issues in Health Education. (3-6)

July 20-July 31; Death Education and Suicide Prevention.

June 22-July 3; Human Sex and Sex Education.

June 24-Aug. 2; daily, 8:00-11:00; Z-071.

Daily, 9:00-3:00; Z-441.

July 6-July 17; Drug Education.

HLTH 189. Adv. in Health Science and Health Education Institute. (3 or 6)

(Sechrist)

(Sands)

(Leviton)

HLTH 200. Seminar in Physical Education, Recreation and Health. (1) Arranged; GG-201. (Fraley)
HLTH 270. Status and Trends in Health Education. (3) Daily, 9:30; AA-9. (Staff)
HLTH 287. Advanced Seminar. (3) Daily, 11:00; AA-14. (Staff)
HLTH 288. Special Problems in Health Education. (1-6) Arranged. (Staff)
HLTH 399. Thesis Research. (1-6) Arranged. (Staff)
HLTH 499. Dissertation Research. (1-6) Arranged. (Staff)
PHYSICAL EDUCATION
PHED S010. Physical Education Activities. (1-4) Not available for credit to PHED majors. Non-majors in PHED may use this credit to fulfill graduation requirements in PHED. Fee, \$6.00.
Section 1 — Tennis (1) Daily, 8:00; Cole Courts. (Schmidt) Section 2 — Swimming (1) Daily, 11:00; Cole Pool. (Schmidt)
PHED 100. Kinesiology. (4) Daily, 9:30; and arranged; GG-310. (Kelley)
PHED 114. Methods in Physical Education For Secondary Schools. (3) Daily, 8:00; and arranged; GG-35. (Husman)
PHED 120. Physical Education For The Elementary School. (3) Daily, 9:30; GG-301. (Humphrey)
PHED 160. Theory of Exercise. (3) Daily, 9:30; GG-205. (Clarke)
PHED 180. Measurement in Physical Education and Health. (3) Daily, 8:00; GG-205. (Kelley)
PHED 189. Workshop—Physical Fitness. (3-6) (Graduate Students may earn no more than 3 hours)
Daily, 8:00-12:00; and arranged; GG-36 A&B. (Santa Maria)
PHED 196. Quantitative Methods. (3) Daily, 11:00; GG-202. (Stull)
PHED 200. Seminar in Physical Education. (1) Arranged; GG-205. (Fraley)

81

(Staff)

(Staff)

(Staff)

Arranged. Credit according to work assigned.

Thesis Research. (1-6)

Dissertation Research (1-6)

RECR 399.

RECR 499.

Arranged.

Arranged.

Physical Education and The Development of The Child. (3)

PHED 204.



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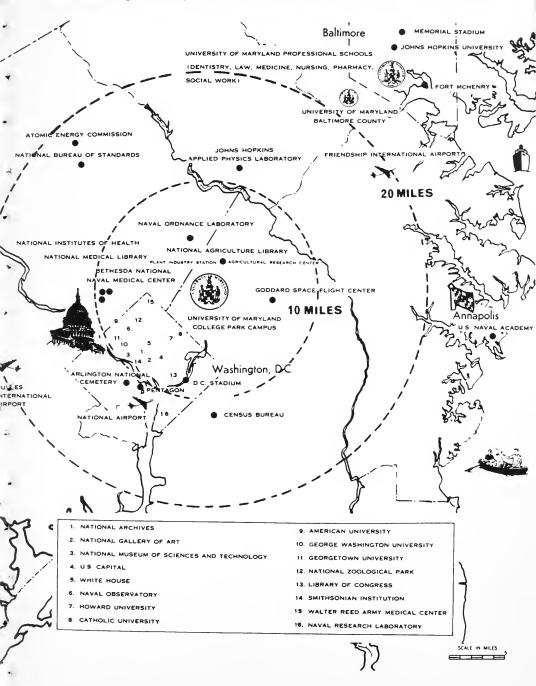
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Please send r	me an applicat	SUMMER 1970 ion for undergraduate	admission to the 1970
Summer School. Undergraduate the College Park who are in good	e day students c Campus with d academic sta	s or graduate students very the University during the anding at the end of the at the time indicated of	who were registered on the Spring Semester and E Spring Semester need
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STREET ADDRESS	j		
CITY		STATE	ZIP
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to begin gradua School. I understand the Graduate Sc	that application that application the study with th	on for admission to the G the 1970 summer sessions for the summer sessions, 1970 and that the all as of all my transcripts hat date.	on through the Summe on must be received in opplication is not consid
NAME		Please print	
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"The purpose of a university is to perform at a high level in all of its endeavors and to elevate the individual and society. It should remain a place where new ideas can be expounded and nurtured. It should lead in the discovery of the truth and in the orderly discussion of controversial issues. Just as it teaches tolerance, it should tolerate lawful dissent and expect restlessness and impatience. The University, however, should not be an activist organization. Rather its proper role is to examine the issues, thereby enabling individuals to arrive at conclusions and to act or not to act as they believe is right. A public university cannot be independent of government but its governing board should be autonomous, and it should resist with all its will and rising influence any effort toward political control. A university must be free in the proper sense of freedom."

> From "Issues and Rumblings in Higher Education"— The President's Convocation Address of Dr. Wilson H. Elkins April 19, 1967 College Park, Maryland

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