

Office - Dean of Women

UNIVERSITY OF MARYLAND

OFFICIAL PUBLICATION

Vol. 35

MARCH, 1938

No. 3

Catalogue Number

1938 - 1939



COLLEGE PARK, MARYLAND

CALENDAR FOR 1938-1939

1938							1939							1940														
JULY							JANUARY							JULY							JANUARY							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
					1	2	1	2	3	4	5	6	7						1			1	2	3	4	5	6	
3	4	5	6	7	8	9	8	9	10	11	12	13	14	2	3	4	5	6	7	8	7	8	9	10	11	12	13	
10	11	12	13	14	15	16	15	16	17	18	19	20	21	9	10	11	12	13	14	15	14	15	16	17	18	19	20	
17	18	19	20	21	22	23	22	23	24	25	26	27	28	16	17	18	19	20	21	22	21	22	23	24	25	26	27	
24	25	26	27	28	29	30	29	30	31					23	24	25	26	27	28	29	28	29	30	31				
31														30	31													
AUGUST							FEBRUARY							AUGUST							FEBRUARY							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
	1	2	3	4	5	6				1	2	3	4			1	2	3	4	5					1	2	3	
7	8	9	10	11	12	13	5	6	7	8	9	10	11	6	7	8	9	10	11	12	4	5	6	7	8	9	10	
14	15	16	17	18	19	20	12	13	14	15	16	17	18	13	14	15	16	17	18	19	11	12	13	14	15	16	17	
21	22	23	24	25	26	27	19	20	21	22	23	24	25	20	21	22	23	24	25	26	18	19	20	21	22	23	24	
28	29	30	31				26	27	28					27	28	29	30	31			25	26	27	28	29			
SEPTEMBER							MARCH							SEPTEMBER							MARCH							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
					1	2	3				1	2	3	4						1	2						1	2
4	5	6	7	8	9	10	5	6	7	8	9	10	11	3	4	5	6	7	8	9	3	4	5	6	7	8	9	
11	12	13	14	15	16	17	12	13	14	15	16	17	18	10	11	12	13	14	15	16	10	11	12	13	14	15	16	
18	19	20	21	22	23	24	19	20	21	22	23	24	25	17	18	19	20	21	22	23	17	18	19	20	21	22	23	
25	26	27	28	29	30		26	27	28	29	30	31		24	25	26	27	28	29	30	24	25	26	27	28	29	30	
														31							31							
OCTOBER							APRIL							OCTOBER							APRIL							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
						1						1		1	2	3	4	5	6		1	2	3	4	5	6		
2	3	4	5	6	7	8	2	3	4	5	6	7	8	8	9	10	11	12	13	14	7	8	9	10	11	12	13	
9	10	11	12	13	14	15	9	10	11	12	13	14	15	15	16	17	18	19	20	21	14	15	16	17	18	19	20	
16	17	18	19	20	21	22	16	17	18	19	20	21	22	22	23	24	25	26	27	28	21	22	23	24	25	26	27	
23	24	25	26	27	28	29	23	24	25	26	27	28	29	29	30	31				28	29	30						
30	31						30																					
NOVEMBER							MAY							NOVEMBER							MAY							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
		1	2	3	4	5		1	2	3	4	5	6			1	2	3	4			1	2	3	4			
6	7	8	9	10	11	12	7	8	9	10	11	12	13	5	6	7	8	9	10	11	5	6	7	8	9	10	11	
13	14	15	16	17	18	19	14	15	16	17	18	19	20	12	13	14	15	16	17	18	12	13	14	15	16	17	18	
20	21	22	23	24	25	26	21	22	23	24	25	26	27	19	20	21	22	23	24	25	19	20	21	22	23	24	25	
27	28	29	30				28	29	30	31				26	27	28	29	30	31	26	27	28	29	30	31			
DECEMBER							JUNE							DECEMBER							JUNE							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
					1	2	3		4	5	6	7	8	9	10						1	2						1
4	5	6	7	8	9	10	4	5	6	7	8	9	10	8	9	10	11	12	13	14	15	2	3	4	5	6	7	8
11	12	13	14	15	16	17	11	12	13	14	15	16	17	10	11	12	13	14	15	16	9	10	11	12	13	14	15	
18	19	20	21	22	23	24	18	19	20	21	22	23	24	17	18	19	20	21	22	23	16	17	18	19	20	21	22	
25	26	27	28	29	30	31	25	26	27	28	29	30		24	25	26	27	28	29	30	23	24	25	26	27	28	29	
														31							30							

THE UNIVERSITY of MARYLAND

CATALOGUE NUMBER

1938 - 1939



*Containing general information concerning the University.
Announcements for the Scholastic Year 1938-1939
and Records of 1937-1938.*

*Facts, conditions, and personnel herein set forth are as
existing at the time of publication, March, 1938.*

Issued Monthly by The University of Maryland, College Park, Md.
Entered as Second Class Matter Under Act of Congress of July 16, 1894.

CALENDAR FOR 1938-1939

1938							1939							1940													
JULY							JANUARY							JULY							JANUARY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2	1	2	3	4	5	6	7							1		1	2	3	4	5	6
3	4	5	6	7	8	9	8	9	10	11	12	13	14	2	3	4	5	6	7	8	7	8	9	10	11	12	13
10	11	12	13	14	15	16	15	16	17	18	19	20	21	9	10	11	12	13	14	15	14	15	16	17	18	19	20
17	18	19	20	21	22	23	22	23	24	25	26	27	28	16	17	18	19	20	21	22	21	22	23	24	25	26	27
24	25	26	27	28	29	30	29	30	31					23	24	25	26	27	28	29	28	29	30	31			
31														30	31												
AUGUST							FEBRUARY							AUGUST							FEBRUARY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
	1	2	3	4	5	6				1	2	3	4			1	2	3	4	5					1	2	3
7	8	9	10	11	12	13	5	6	7	8	9	10	11	6	7	8	9	10	11	12	4	5	6	7	8	9	10
14	15	16	17	18	19	20	12	13	14	15	16	17	18	13	14	15	16	17	18	19	11	12	13	14	15	16	17
21	22	23	24	25	26	27	19	20	21	22	23	24	25	20	21	22	23	24	25	26	18	19	20	21	22	23	24
28	29	30	31				26	27	28					27	28	29	30	31			25	26	27	28	29		
SEPTEMBER							MARCH							SEPTEMBER							MARCH						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3				1	2	3	4					1	2					1	2	3	
4	5	6	7	8	9	10	5	6	7	8	9	10	11	3	4	5	6	7	8	9	3	4	5	6	7	8	9
11	12	13	14	15	16	17	12	13	14	15	16	17	18	10	11	12	13	14	15	16	10	11	12	13	14	15	16
18	19	20	21	22	23	24	19	20	21	22	23	24	25	17	18	19	20	21	22	23	17	18	19	20	21	22	23
25	26	27	28	29	30		26	27	28	29	30	31		24	25	26	27	28	29	30	24	25	26	27	28	29	30
														31							31						
OCTOBER							APRIL							OCTOBER							APRIL						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
						1						1	1	2	3	4	5	6	7		1	2	3	4	5	6	
2	3	4	5	6	7	8	2	3	4	5	6	7	8	8	9	10	11	12	13	14	7	8	9	10	11	12	13
9	10	11	12	13	14	15	9	10	11	12	13	14	15	15	16	17	18	19	20	21	14	15	16	17	18	19	20
16	17	18	19	20	21	22	16	17	18	19	20	21	22	22	23	24	25	26	27	28	21	22	23	24	25	26	27
23	24	25	26	27	28	29	23	24	25	26	27	28	29	29	30	31					28	29	30				
30	31						30																				
NOVEMBER							MAY							NOVEMBER							MAY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5		1	2	3	4	5	6				1	2	3	4				1	2	3	4
6	7	8	9	10	11	12	7	8	9	10	11	12	13	5	6	7	8	9	10	11	5	6	7	8	9	10	11
13	14	15	16	17	18	19	14	15	16	17	18	19	20	12	13	14	15	16	17	18	12	13	14	15	16	17	18
20	21	22	23	24	25	26	21	22	23	24	25	26	27	19	20	21	22	23	24	25	19	20	21	22	23	24	25
27	28	29	30				28	29	30	31				26	27	28	29	30	31		26	27	28	29	30	31	
DECEMBER							JUNE							DECEMBER							JUNE						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3					1	2	3						1	2						1	2
4	5	6	7	8	9	10	4	5	6	7	8	9	10	3	4	5	6	7	8	9	2	3	4	5	6	7	8
11	12	13	14	15	16	17	11	12	13	14	15	16	17	10	11	12	13	14	15	16	9	10	11	12	13	14	15
18	19	20	21	22	23	24	18	19	20	21	22	23	24	17	18	19	20	21	22	23	16	17	18	19	20	21	22
25	26	27	28	29	30	31	25	26	27	28	29	30		24	25	26	27	28	29	30	23	24	25	26	27	28	29
														31							30						

THE UNIVERSITY of MARYLAND

CATALOGUE NUMBER

1938 - 1939



*Containing general information concerning the University.
Announcements for the Scholastic Year 1938-1939
and Records of 1937-1938.*

*Facts, conditions, and personnel herein set forth are as
existing at the time of publication, March, 1938.*

Issued Monthly by The University of Maryland, College Park, Md.
Entered as Second Class Matter Under Act of Congress of July 16, 1894.

Table of Contents

	Page
UNIVERSITY CALENDAR.....	4
BOARD OF REGENTS.....	7
OFFICERS OF ADMINISTRATION.....	8
OFFICERS OF INSTRUCTION.....	9
BOARDS AND COMMITTEES (College Park).....	17
SECTION I—GENERAL INFORMATION.....	40
Historical Statement	40
Administrative Organization	41
Princess Anne College.....	42
Location	42
Grounds and Buildings.....	42
Libraries.....	44
Admission	45
Requirement in Military Instruction.....	49
Requirements in Physical Education for Women.....	49
Health Service.....	50
Regulations, Grades, Degrees.....	51
Expenses	54
Honors and Awards.....	60
Student Activities	62
Alumni	65
SECTION II—ADMINISTRATIVE DIVISIONS.....	66
College of Agriculture.....	66
Agricultural Experiment Station.....	93
Extension Service	93
Regulatory Activities.....	94
College of Arts and Sciences.....	96
College of Commerce.....	122
College of Education.....	132
College of Engineering.....	148
College of Home Economics.....	161
Graduate School	166
Summer Session	174
Department of Military Science and Tactics.....	175
Physical Education, Recreation, and Athletics.....	179
School of Dentistry.....	181
School of Law.....	190
School of Medicine.....	194
School of Nursing.....	198
School of Pharmacy.....	203
State Boards and Departments.....	207
SECTION III—DESCRIPTION OF COURSES.....	211
(Alphabetical index of departments, p. 211)	
SECTION IV—DEGREES, HONORS, AND STUDENT REGISTER.....	341
Degrees and Certificates, 1936-1937.....	341
Honors, 1936-1937.....	353
Student Register, 1937-1938.....	362
Summary of Enrollment, 1937-1938.....	412
INDEX	413

UNIVERSITY CALENDAR

1938-1939

COLLEGE PARK

First Semester

1938		
Sept. 14-16	Wednesday-Friday	Registration for freshmen.
Sept. 17	Saturday	Upper classmen complete registration.
Sept. 19	Monday, 8:20 a. m.	Instruction for first semester begins.
Sept. 24	Saturday	Last day to change registration or to file schedule card without penalty.
Nov. 10	Thursday	Annual Faculty Reception.
Nov. 23	Wednesday, 4:10 p. m.	Thanksgiving recess begins.
Nov. 28	Monday, 8:20 a. m.	Thanksgiving recess ends.
Dec. 16	Friday, 4:10 p. m.	Christmas recess begins.
1939		
Jan. 3	Tuesday, 8:20 a. m.	Christmas recess ends.
Jan. 18-26	Wednesday-Thursday	First semester examinations.
Jan. 20	Friday	Charter Day. Alumni Banquet.

Second Semester

Jan. 9-17	Monday-Tuesday	Registration for second semester.
Jan. 23-Feb. 3	Monday-Friday	Highway Engineering Short Course.
Jan. 31	Tuesday	Last day to complete registration for second semester without payment of late registration fee.
Feb. 1	Wednesday, 8:20 a. m.	Instruction for second semester begins.
Feb. 6	Monday	Last day to change registration or to file schedule card without penalty.
Feb. 22	Wednesday	Washington's Birthday. Holiday.
March 25	Saturday	Observance of Maryland Day.
April 6-11	Thursday, 5:10 p. m. Tuesday, 8:20 a. m.	Easter recess.
May 12-20	Friday-Saturday	Registration for first semester, 1939-1940.
May 22-31	Monday-Wednesday	Second semester examinations.
May 28	Sunday, 11:00 a. m.	Baccalaureate sermon.
May 30	Tuesday	Memorial Day. Holiday.
June 2	Friday	Class Day.
June 3	Saturday	Commencement.

Summer Term

June 12-17	Monday-Saturday	Rural Women's Short Course.
June 26	Monday	Summer Session begins.
Aug. 4	Friday	Summer Session ends.
Aug. 7-12	Monday-Saturday	Boys' and Girls' Club Week.
Sept. 5-7	Tuesday-Thursday	Volunteer Firemen's Short Course.
Sept. 11-13	Monday-Wednesday	Sanitary Engineering Short Course.
Sept. 11-13	Monday-Wednesday	Ministers' Conference.
Sept. 18-30	Monday-Saturday	Traffic Officers' Training School.

Notice: No leaves of absence will be granted either prior to, or subsequent to the dates set for holidays.

BALTIMORE (PROFESSIONAL SCHOOLS)

First Semester

1938		
September 12	Monday	*Registration for evening students (LAW).
September 14	Wednesday	Instruction begins with the first scheduled period (LAW—Evening).
September 20	Tuesday	*Registration for first- and second-year students (DENTISTRY, MEDICINE, PHARMACY).
September 21	Wednesday	*Registration for all other students (DENTISTRY, LAW—Day, MEDICINE, PHARMACY).
September 22	Thursday	Instruction begins with the first scheduled period (DENTISTRY, LAW—Day, MEDICINE, PHARMACY).
November 23	Wednesday	Thanksgiving recess begins after the last scheduled period (ALL SCHOOLS).
November 28	Monday	Instruction resumed with the first scheduled period (ALL SCHOOLS).
December 21	Wednesday	Christmas recess begins after the last scheduled period (ALL SCHOOLS).
1939		
January 3	Tuesday	Instruction resumed with the first scheduled period (ALL SCHOOLS).
January 23 to	Monday-	*Registration for the second semester (ALL SCHOOLS).
January 28, inc.	Saturday	
January 28	Saturday	First semester ends after the last scheduled period (ALL SCHOOLS).

Second Semester

January 30	Monday	Instruction begins with the first scheduled period (ALL SCHOOLS).
February 22	Wednesday	Washington's Birthday. Holiday.
April 5	Wednesday	Easter recess begins after the last scheduled period (ALL SCHOOLS).
April 12	Wednesday	Instruction resumed with the first scheduled period (ALL SCHOOLS).
June 3	Saturday, 11 a.m.	Commencement.
June 14	Wednesday	Second semester ends (LAW — Evening).

* A student who neglects or fails to register prior to or within the day or days specified for his or her school will be called upon to pay a fine of five dollars (\$5.00). The last day of registration with fine added to regular fees is Saturday at noon of the week in which instruction begins following the specified registration period. (This rule may be waived only upon the written recommendation of the dean.)

* The offices of the registrar and comptroller are open daily, not including Saturday, from 9:00 a. m. to 5:00 p. m., and on Saturday from 9:00 a. m. to 12:30 p. m., with the following exceptions: Monday, September 12, 1938, until 8:00 p. m.; Saturday, September 24, 1938, until 5:00 p. m.; and on Saturday, January 28, 1939, until 5:00 p. m. Advance registration is encouraged.

BOARD OF REGENTS

	<i>Term Expires</i>
W. W. SKINNER, Chairman.....	1945
Kensington, Montgomery County	
MRS. JOHN L. WHITEHURST, Secretary.....	1947
4101 Greenway, Baltimore	
J. MILTON PATTERSON, Treasurer	1944
1015 Argonne Drive, Baltimore	
W. CALVIN CHESNUT.....	1942
Roland Park, Baltimore	
WILLIAM P. COLE, JR.....	1940
Towson, Baltimore County	
HENRY HOLZAPFEL, JR.....	1943
Hagerstown, Washington County	
HARRY H. NUTTLE.....	1941
Denton, Caroline County	
JOHN E. RAINE.....	1939 - <i>expired</i>
Towson, Baltimore County	
CLINTON L. RIGGS.....	1942 - <i>died</i>
Catonsville, Baltimore County	

Charles Delmas resigned

John E. Lammes - Balto. Trust. appt = /39

*Judge R. K. Adams - Balto. Supreme Bench - 6/39
in pl. John E. Raine - Jun*

OFFICERS OF ADMINISTRATION

H. C. BYRD, LL.D., President of the University.
H. J. PATTERSON, D. Sc., Dean Emeritus of Agriculture.
T. B. SYMONS, M.S., D.Agr., Director of the Extension Service, Acting Dean of the College of Agriculture.
T. H. TALIAFERRO, C. E., Ph.D., Dean of the Faculty.
L. B. BROUGHTON, Ph.D., Dean of the College of Arts and Sciences.
W. MACKENZIE STEVENS, N.B.A., Ph.D., C.P.A., Dean of the College of Commerce.
J. M. H. ROWLAND, Sc.D., LL.D., M.D., Dean of the School of Medicine.
HENRY D. HARLAN, A.M., LL.B., LL.D., Dean Emeritus of the School of Law.
ROGER HOWELL, LL.B., Ph.D., Dean of the School of Law.
E. FRANK KELLY, Ph.D., D.Sc., Advisory Dean of the School of Pharmacy.
ANDREW G. DUMEZ, Ph.G., Ph.D., Dean of the School of Pharmacy.
J. BEN ROBINSON, D.D.S., F.A.C.D., Dean of the School of Dentistry.
W. S. SMALL, Ph.D., Dean of the College of Education, Director of the Summer Session.
M. MARIE MOUNT, A.B., M.A., Dean of the College of Home Economics.
C. O. APPLEMAN, Ph.D., Dean of the Graduate School.
A. J. LOMAS, M.D., D.P.H., Superintendent of the University Hospital.
ANNIE CRIGHTON, R.N., Superintendent of Nurses, Director of the School of Nursing.
S. S. STEINBERG, B.E., C.E., Dean of the College of Engineering.
GEARY F. EPPLEY, M.S., Dean of Men and Director of Athletics.
ADELE H. STAMP, M.A., Dean of Women.
J. D. PATCH, Lt. Col., Inf., U. S. Army, Professor of Military Science and Tactics.
H. T. CASBARIAN, B.C.S., C.P.A., Comptroller.
W. M. HILLEGEIST, Director of Admissions.
ALMA H. PREINKERT, M.A., Registrar.
F. K. HASZARD, B.S., Secretary to the President.
H. L. CRISP, M.M.E., Superintendent of Buildings and Grounds.
HERBERT A. RUSSELL, Chief Engineer.
J. E. METZGER, B.S., M.A., Acting Director of Experiment Station.
H. F. COTTERMAN, Ph.D., Assistant Dean of the College of Agriculture.
CARL W. E. HINTZ, A.M.L.S., Librarian.

OFFICERS OF INSTRUCTION

For the Year 1937-1938

At College Park

PROFESSORS

C. O. APPLEMAN, Ph.D., Professor of Botany and Plant Physiology, Dean of the Graduate School.
HAYES BAKER-CROTHERS, Ph.D., Professor of History.
F. W. BESLEY, Ph.D., Professor of Farm Forestry, State Forester.
L. A. BLACK, Ph.D., Professor of Bacteriology.
L. B. BROUGHTON, Ph.D., Dean of the College of Arts and Sciences, Professor of Chemistry, State Chemist.
GLEN D. BROWN, M.A., Professor of Industrial Education.
O. C. BRUCE, M.S., Professor of Soil Technology. (On leave of absence.)
THEODORE C. BYERLY, Ph.D., Professor of Poultry Husbandry.
R. W. CARPENTER, A.B., LL.B., Professor of Agricultural Engineering.
KENNETH A. CLARK, M.S., Professor of Animal Husbandry.
E. N. CORY, Ph.D., Professor of Entomology, State Entomologist.
H. F. COTTERMAN, Ph.D., Professor of Agricultural Education, Assistant Dean of the College of Agriculture.
MYRON CREESE, B.S., E.E., Professor of Electrical Engineering.
TOBIAS DANTZIG, Ph.D., Professor of Mathematics.
S. H. DEVAULT, Ph.D., Professor of Agricultural Economics.
NATHAN L. DRAKE, Ph.D., Professor of Organic Chemistry.
C. G. EICHLIN, A.B., M.S., Professor of Physics.
W. F. FALLS, Ph.D., Professor of Modern Languages.
ALLEN S. GRUCHY, Ph.D., Professor of Economics and Finance.
CHARLES B. HALE, Ph.D., Professor of English.
MALCOLM HARING, Ph.D., Professor of Physical Chemistry.
HOMER C. HOUSE, Ph.D., Professor of the English Language and Literature.
L. V. HOWARD, Ph.D., Professor of Political Science.
WILBERT J. HUFF, Ph.D., Professor of Chemical Engineering.
K. C. IKELER, M.E., M.S., Professor of Animal and Dairy Husbandry.
L. W. INGHAM, M.S., Professor of Dairy Husbandry.
LAWRENCE H. JAMES, Ph.D., Professor of Bacteriology.
J. G. JENKINS, Ph.D., Professor of Psychology.
MORLEY A. JULL, Ph.D., Professor of Poultry Husbandry.
W. B. KEMP, Ph.D., Professor of Genetics and Statistics.
EDGAR F. LONG, Ph.D., Professor of Education.
C. L. MACKERT, M.A., Professor of Physical Education for Men.
C. H. MAHONEY, Ph.D., Professor of Olericulture.
T. B. MANNY, Ph.D., Professor of Sociology.
FRITZ MARTI, Ph.D., Professor of Philosophy.
FRIEDA W. MCFARLAND, M.A., Professor of Textiles and Clothing.

- ✓ EDNA B. MCNAUGHTON, M.A., Professor of Home Economics Education.
 DEVOE MEADE, Ph.D., Professor of Animal and Dairy Husbandry.
 J. E. METZGER, B.S., M.A., Professor of Agronomy and Acting Director of Experiment Station.
 J. A. MILLER, B.S., Administrative Coordinator of Practice Teaching.
 M. MARIE MOUNT, M.A., Professor of Home and Institution Management, Dean of the College of Home Economics.
 J. N. G. NESBIT, B.S., M.E., E.E., Professor of Mechanical Engineering.
 J. B. S. NORTON, M.S., D.Sc., Professor of Plant Pathology.
 J. D. PATCH, Lt. Col., Inf., U. S. A., Professor of Military Science and Tactics.
 C. S. RICHARDSON, A.M., Professor of Speech.
 A. L. SCHRADER, Ph.D., Professor of Pomology.
 W. S. SMALL, Ph.D., Professor of Education, Dean of the College of Education, Director of the Summer Session.
 J. W. SPROWLS, Ph.D., Professor of Psychology.
 ✓ ADELE H. STAMP, M.A., Dean of Women.
 S. S. STEINBERG, B.E., C.E., Professor of Civil Engineering, Dean of the College of Engineering, Director of Engineering Research.
 W. MACKENZIE STEVENS, M.B.A., Ph.D., C.P.A., Professor of Economics and Business Administration, Dean of the College of Commerce.
 LEONID I. STRAKHOVSKY, Ph.D., Professor of European History.
 T. H. TALIAFERRO, C.E., Ph.D., Professor of Mathematics, Dean of Faculty.
 C. E. TEMPLE, M.A., Professor of Plant Pathology, State Plant Pathologist.
 ROYLE P. THOMAS, Ph.D., Professor of Soil Technology.
 A. S. THURSTON, M.S., Professor of Floriculture and Landscape Gardening.
 R. V. TRUITT, Ph.D., Professor of Zoology and Aquiculture.
 HARRY WARFEL, Ph.D., Professor of English.
 S. M. WEDEBERG, A.M., C.P.A., Professor of Accounting.
 ✓ CLARIBEL P. WELSH, M.A., Professor of Foods.
 CHARLES E. WHITE, Ph.D., Professor of Inorganic Chemistry.

LECTURERS

- O. E. BAKER, Ph.D., Lecturer in Agricultural Economics.
 R. S. DILL, B.S., Lecturer on Heating, Ventilation, and Refrigeration.
 H. R. HALL, B.S., Lecturer in Municipal Sanitation.
 F. G. KEAR, D.Sc., Lecturer on Electrical Communication.
 HOWARD LARSON, M.A., Lecturer in Political Science.
 NELSON B. LASSON, LL.B., Ph.D., Lecturer in Political Science.
 R. E. SNODGRASS, A.B., Lecturer in Entomology.
 JAMES F. YEAGER, Ph.D., Lecturer in Entomology.

ASSOCIATE PROFESSORS

- RONALD BAMFORD, Ph.D., Associate Professor of Botany.
 MYRON H. BERRY, M.A., Associate Professor of Dairy Husbandry.
 HENRY BRECHBILL, Ph.D., Associate Professor of Education.
 CHARLES W. ENGLAND, Ph.D., Associate Professor of Dairy Manufacturing.
 GEARY EPPLEY, M.S., Associate Professor of Agronomy, Director of Athletics, Dean of Men.
 W. A. FRAZIER, Ph.D., Associate Professor of Horticulture.
 JAMES MARTIN GWIN, B.S., Associate Professor of Egg Marketing, Poultry Husbandry.
 ✓ SUSAN EMOLYN HARMAN, Ph.D., Associate Professor of English.
 I. C. HAUT, Ph.D., Associate Professor of Pomology.
 L. S. HIGHBY, Ph.D., Associate Professor of Ancient Languages and Literature.
 CARL W. E. HINTZ, A.M.L.S., Associate Professor of Library Science, Librarian.
 L. J. HODGINS, B.S., Associate Professor of Electrical Engineering.
 JESSE WILLIAM HUCKERT, Ph.D., Associate Professor of Mechanical Engineering.
 CARL S. JOSLYN, Ph.D., Associate Professor of Sociology.
 C. F. KRAMER, Ph.D., Associate Professor of Modern Languages.
 FRANCIS B. LINCOLN, Ph.D., Associate Professor of Plant Propagation.
 ALPHEUS R. MARSHALL, Ph.D., Associate Professor of Economics.
 N. E. PHILLIPS, Ph.D., Associate Professor of Zoology.
 GEO. D. QUIGLEY, B.S., Associate Professor of Poultry Husbandry.
 A. W. RICHESON, Ph.D., Associate Professor of Mathematics (Baltimore).
 REUBEN STEINMEYER, Ph.D., Associate Professor of Political Science.
 W. PAUL WALKER, M.S., Associate Professor of Agricultural Economics.
 R. C. WILEY, Ph.D., Associate Professor of Analytical Chemistry.
 R. C. YATES, Ph.D., Associate Professor of Mathematics. (On leave of absence.)

ASSISTANT PROFESSORS

- RUSSELL B. ALLEN, B.S., Assistant Professor of Civil Engineering.
 M. THOMAS BARTRAM, Ph.D., Assistant Professor in Bacteriology.
 RUSSELL G. BROWN, Ph.D., Assistant Professor of Plant Physiology.
 S. O. BURHOE, Ph.D., Assistant Professor of Zoology.
 C. W. CISSEL, M.A., Assistant Professor of Accounting.
 HOWARD CLARK, II, Major, Inf., U. S. A., Assistant Professor of Military Science and Tactics.
 W. R. CLARK, M.A., Assistant Professor of Psychology.
 JAMES W. CODDINGTON, M.S., Assistant Professor of Agricultural Economics.
 ✓ VIENNA CURTIS, M.A., Assistant Professor of Art.
 EUGENE B. DANIELS, M.A., M.F.S., Ph.D., Assistant Professor of Economics and Commerce.

GEORGE O. S. DARBY, Ph.D., Assistant Professor of Modern Languages.
 LINDEN S. DODSON, Ph.D., Assistant Professor of Sociology.
 RAY EHRENSBERGER, Ph.D., Assistant Professor of Speech.
 GEORGE C. ERNST, M.S., Assistant Professor of Civil Engineering.
 JOHN E. FABER, M.S., Assistant Professor of Bacteriology.
 ROBERT T. FITZHUGH, Ph.D., Assistant Professor of English.
 ARTHUR B. HAMILTON, M.S., Assistant Professor of Agricultural Economics.
 STEWART D. HERVEY, Major, Inf., U. S. A., B.S., Assistant Professor of
 Military Science and Tactics.
 H. B. HOSHALL, B.S., M.E., Assistant Professor of Mechanical Engineering.
 GEORGE B. HUGHES, B.S., Assistant Professor of Dairy Manufacturing.
 CHARLES H. JONES, Major, Inf., U. S. A., Assistant Professor of Military
 Science and Tactics.
 KATE KARPELES, M.D., Physician to Women.
 MARY E. KIRKPATRICK, M.S., Assistant Professor of Foods and Nutrition.
 PAUL KNIGHT, M.S., Assistant Professor of Entomology.
 PHILIP R. LAYTON, LL.B., M.B.A., Assistant Professor of Business Adminis-
 tration.
 F. M. LEMON, Ph.D., Assistant Professor of English.
 GEORGE MACHWART, Ph.D., Assistant Professor of Industrial Chemistry.
 WILLIAM G. MAGLIN, Capt., Inf., U. S. A., Assistant Professor of Military
 Science and Tactics.
 MONROE H. MARTIN, Ph.D., Assistant Professor of Mathematics.
 DOROTHY M. MIDDLETON, A.B., Assistant Professor of Physical Education.
 M. A. PYLE, B.S., Assistant Professor of Civil Engineering.
 AUGUSTUS J. PRAHL, Ph.D., Assistant Professor of Modern Languages.
 HESTER BEALL PROVENSON, LL.B., Assistant Professor of Speech.
 OSWALD KARL SAGEN, Ph.D., Assistant Professor of Mathematics.
 FLORENCE B. SMITH, M.A., Assistant Professor of Home Management.
 E. B. STARKEY, Ph.D., Assistant Professor of Organic Chemistry (Balti-
 more).
 W. C. SUPPLEE, Ph.D., Assistant Professor of Chemistry.
 H. W. THATCHER, Ph.D., Assistant Professor of History.
 GUY P. THOMPSON, M.S., Assistant Professor of Zoology (Baltimore.)
 EDWIN W. TITT, Ph.D., Assistant Professor of Mathematics.
 E. G. VANDEN BOSCHE, Ph.D., Assistant Professor of Inorganic Chemistry
 (Baltimore.)
 ARNE WIKSTROM, E.E., Ph.D., Assistant Professor of Electrical Engineering.
 MARK W. WOODS, Ph.D., Assistant Professor of Plant Physiology.
 W. GORDON ZEEVELD, Ph.D., Assistant Professor of English.

INSTRUCTORS

GEORGE F. ALRICH, Ph.D., E.E., Instructor in Mathematics.
 GEORGE J. ABRAMS, M.S., Instructor in Apiculture.
 CECIL R. BALL, M.A., Instructor in English.
 GRACE BARNES, B.S. and B.L.S., Instructor in Library Science.

MARY EMMA BARNES, M.A., Instructor in Foods and Nutrition.
 MARY BARTON, C.D.E.F., M.A., Instructor in Education, and Critic Teacher.
 J. D. BLANDFORD, Instructor in Horticulture.
 ALAN EDWARD BOGUE, B.S., Instructor in Animal Husbandry.
 HUGH A. BONE, JR., Ph.D., Instructor in Political Science.
 H. GLEN BROWN, A.M., A.M.L.S., Instructor in Library Science and Assis-
 tant Reference and Loan Librarian.
 JACK Y. BRYAN, M.A., Instructor in English.
 FRANCES BRYANT, B.S., Instructor in Home Management.
 ADELAIDE C. CLOUGH, M.A., Instructor in Education and Critic Teacher.
 BERYL H. DICKINSON, Ph.D., Instructor in Physics.
 FRANK M. DOBSON, Instructor in Physical Education.
 DONALD MARQUAND DOZER, Ph.D., Instructor in History.
 GAYLORD BEALE ESTABROOK, Ph.D., Instructor in Physics (Baltimore).
 ALARIC ANTHONY EVANGELIST, M.A., Instructor in Modern Languages.
 GEORGE W. FOGG, M.A., Instructor in Library Science.
 GARDNER H. FOLEY, M.A., Instructor in English and Public Speaking (Bal-
 timore).
 ELLEN FRAZER, M.A., Instructor in Physical Education.
 JOHN J. GAVAGHAN, Sgt., U. S. A., Instructor in Military Science and
 Tactics.
 EDWIN E. GHISELLI, Ph.D., Instructor in Psychology.
 WILLIAM H. GRAVELY, JR., M.A., Instructor in English. —
 W. L. HARD, Ph.D., Instructor in Zoology.
 L. C. HUTSON, Instructor in Mining Extension.
 WILLIAM E. HUTZELL, Instructor in Physical Education.
 FRANCES IDE, M.A., Instructor in English.
 EGBERT C. INGALLS, C.E., D.C.E., Instructor in Civil Engineering.
 EVELYN IVERSON, M.A., Instructor in Speech. -
 JOHN E. JACOBI, Ph.D., Instructor in Sociology.
 POLLY BELL KESSINGER, M.S., Instructor in Textiles and Clothing.
 AGNES I. KINNEAR, M.A., Instructor in Education.
 HOWARD M. KLINE, Ph.D., Instructor in Political Science.
 VERNON ARTHUR LAMB, Ph.D., Instructor in Chemistry.
 OTIS E. LANCASTER, Ph.D., Instructor in Mathematics.
 ERIC J. LINDAHL, M.S., Instructor in Mechanical Engineering.
 ANDRE LIOTARD, B.A., B.D., Instructor in Modern Languages.
 JOHN LOWE, III, B.S., M.S., Instructor in Civil Engineering.
 I. E. MCDUGLE, Ph.D., Instructor in Sociology (Baltimore).
 WM. H. MCMANUS, Warrant Officer, U. S. A., Instructor in Military Science
 and Tactics.
 GEORGE F. MADIGAN, M.S., Instructor in Agronomy.
 FRITZ MAILE, Instructor in Music.
 JOHN C. MULLIN, M.B.A., Instructor in Economics and Business Adminis-
 tration.
 C. D. MURPHY, A.M., Instructor in English.
 C. L. NEWCOMBE, Ph.D., Instructor in Zoology.

ARTHUR C. PARSONS, A.M., Instructor in Modern Languages (Baltimore).
 W. D. PATTON, B.A., Instructor in Modern Languages.
 J. ORIN POWERS, Ph.D., Instructor in Education.
 GORDON WILLIAM PRANGE, Ph.D., Instructor in History.
 J. THOMAS PYLES, M.A., Instructor in English (Baltimore).
 HARLAN RANDALL, Instructor in Music.
 JAMES H. REID, M.A., Instructor in Marketing.
 MARK SCHWEIZER, M.A., Instructor in Modern Languages.
 OTTO SIEBENEICHEN, Instructor in Band Music.
 GEORGE L. SIXBEY, M.A., Instructor in English.
 H. B. SHIPLEY, B.S., Instructor in Physical Education.
 ARTHUR SILVER, M.A., Instructor in History.
 C. MABEL SMITH, Instructor in Education.
 HENRY HUNTER SMITH, M.S., Instructor in Physics.
 ✓ KATHLEEN M. SMITH, A.B., Ed.M., Instructor in Education.
 ✓ GRETCHEN STONTEMYER, M.A., Instructor in Physical Education.
 WARREN L. STRAUSBAUGH, M.A., Instructor in Speech.
 WILLIAM J. SVIRBELY, M.S., D.Sc., Instructor in Chemistry.
 GRANVILLE H. TRIPLETT, A.M., Pd.M., LL.M., J.D., Instructor in Economics (Baltimore).
 G. J. UHRINAK, Corporal, Inf., U.S.A., Instructor in Military Science and Tactics.
 EDMUND H. UMBERGER, A.M., Instructor in Mathematics.
 WALTER R. VOLCKHAUSEN, M.A., Instructor in Mathematics.
 ✓ BERNICE W. WADE, B.S., Instructor in Physical Education.
 ✓ HELEN WILCOX, M.A., Instructor in Modern Languages.
 CHARLES SIMPSON WILLIAMS, B.S., Instructor in Poultry.
 JONATHAN W. WILLIAMS, Ph.D., Instructor in Chemistry.
 C. J. WITTLER, Ph.D., Instructor in Sociology.
 ALBERT W. WOODS, B.S., Instructor in Agronomy.
 LELAND G. WORTHINGTON, B.S., Instructor in Agricultural Education.
 WARREN ZIEGAUS, B.S., Instructor in Library Science.

ASSISTANTS

✓ H. L. ALDERTON, B.S., Assistant in Physical Education.
 ✓ JESSIE BLAISDELL, Assistant in Music.
 SPENCER B. CHASE, B.S., Assistant in Pomology.
 EDWARD L. CONWELL, Ph.D., Assistant in English.
 L. P. DITMAN, Ph.D., Assistant in Entomology.
 DONALD HENNICK, Assistant in Mechanical Engineering.
 L. J. KILBY, B.S., Assistant in Horticulture.
 AUDREY KILLIAM, B.S., Assistant in Home Economics.
 ✓ RUSSELL HANCOCK LYDDANE, B.S., Assistant in Physics (Baltimore).
 ✓ FRANCES HOWE MILLER, A.M., Assistant in English.
 CARROLL NASH, B.S., Assistant in Water Products.
 BERNICE PIERSON, A.B., Assistant in Zoology (Baltimore).
 PAUL R. POFFENBERGER, M.S., Assistant in Agricultural Economics.

GRADUATE ASSISTANTS

1937-1938

DAVID H. BALDWIN.....Poultry
 JEAN BARZHE.....Mathematics
 JOHN BLACKMORE.....Agricultural Economics
 PAUL S. BROOKS.....Chemistry
 DONALD S. BROWNLEE.....Plant Physiology
 HOMER W. CARHART.....Chemistry
 FLOYD D. CARROLL.....Animal and Dairy Husbandry
 LAURENCE E. CRON.....Agricultural Economics
 NATHAN GAMMON, JR.....Agronomy
 LEX B. GOLDEN.....Agronomy
 ✓ JACK D. HARTMAN.....Animal and Dairy Husbandry
 HUGH A. HELLER.....Chemistry
 CHESTER W. HITZ.....Horticulture
 ALFRED D. HOADLEY.....Agronomy
 WILLIAM A. HORNE.....Chemistry
 J. RUSSELL IVES.....Agricultural Economics
 WALTER F. JEFFERS.....Plant Pathology
 HYMAN N. LADEN.....Mathematics
 CHARLES M. LOYD.....Animal and Dairy Husbandry
 LEWIS P. MCCANN.....Bacteriology
 WILLIAM A. NOLTE.....Bacteriology
 JAMES M. OSBORN.....Chemistry
 MICHAEL J. PELCZAR, JR.....Bacteriology
 ALFRED B. PETTIT.....Entomology
 GEORGE B. REYNARD.....Botany
 HAROLD G. SHIRK.....Plant Physiology
 HUTTON D. SLADE.....Bacteriology
 LEONARD SMITH.....Chemistry
 ELSIE M. SOCKRIDER.....Bacteriology
 MARVIN L. SPECK.....Bacteriology
 HOWARD L. STIER.....Horticulture
 VIOLA C. TEETER.....Home Economics
 VIRGINIA E. THOMAS.....Entomology
 ALBERT H. TILLSON.....Botany
 LA VETA TITT.....Genetics and Statistics
 PASCHAL P. ZAPPONI.....Chemistry

FELLOWS

1937-1938

JOHN R. ADAMS.....	Chemistry
ARA A. ASADORIAN.....	Sociology
CLYDE W. BALCH.....	Chemical Engineering
JOHN S. BAYLEY.....	Education
JOHN M. BELLOW, JR.....	Botany
WILLIAM E. BICKLEY, JR.....	Entomology
FRANCIS MILES BOWER.....	Chemistry
JOHN L. BOWERS.....	Horticulture
VIOLA MARIAN BUHROW.....	Economics
ROY DAWSON.....	Bacteriology
GORDON F. DITTMAR.....	Chemical Engineering
WILBUR I. DUVALL.....	Physics
FRANK T. HOADLEY.....	English
GEORGE K. HOLMES.....	Chemistry
FRANK L. HOWARD.....	Chemistry
JOSEPH S. LANN.....	Chemistry
RUSSELL ERNEST LEED.....	Chemistry
RODNEY ANDREEN OLSON.....	Plant Physiology
ROY L. ROBERTSON.....	Zoology
DONALD E. SHAY.....	Zoology
MILDRED E. SKINNER.....	English
CARL B. SMITH.....	Agricultural Economics
WILLIAM A. STANTON.....	Chemistry
WILLIAM D. STULL.....	Zoology
WILLIAM H. SWANGO.....	Chemistry
FLORA W. REID.....	Home Economics
MARY ELINOR WEBSTER.....	Zoology
JOHN K. WOLFE.....	Chemistry

LIBRARIANS

(College Park)

CARL W. E. HINTZ, A.M., A.M.L.S.....	Librarian
GEORGE W. FOGG, M.A.....	Reference and Loan Librarian
H. GLENN BROWN, A.M., A.M.L.S.....	Assistant Reference and Loan Librarian
ALMA HOOK, B.S., B.S.L.S.....	Head Cataloguer
LOUISE W. GETCHELL, A.B., B.S.L.S.....	Assistant Cataloguer
ELIZABETH A. GARDNER, A.M., B.S.L.S.....	Assistant Cataloguer
THELMA R. WILES, A.B., A.B.L.S.....	Assistant Cataloguer
WARREN ZIEGAUS, B.S., B.A. in Librarianship.....	Order Librarian
KATE WHITE.....	Assistant

BOARDS AND COMMITTEES

THE GENERAL ADMINISTRATIVE BOARD

President Byrd, Dr. Symons, Dean Taliaferro, Dean Rowland, Dean Howell, Dean DuMez, Dean Robinson, Dean Small, Dean Mount, Dean Appleman, Dean Steinberg, Dean Stamp, Dean Broughton, Dean Stevens, Dr. Cotterman, Colonel Patch, Dr. Lomas, Dr. Huff, Mr. Hillegeist, Miss Preinkert, Miss Kellar, Professor Metzger, Dr. Hale, Dr. Manny, Dr. White, Dr. Welsh, Professor Ikeler, Professor Eppley.

EDUCATIONAL POLICY, STANDARDS, AND COORDINATION

Dr. Warfel, Chairman; Dr. DeVault, Professor Metzger, Dr. White, Dr. Dantzig, Mrs. Welsh, Dr. Cotterman, Dr. Truitt, Dr. Bamford, Dean Steinberg, Dr. Gaver, Dr. Jenkins, Dr. Wylie, Professor Strahorn, Professor Ikeler.

STUDENT LIFE

Professor Eppley, Chairman; Colonel Patch, Dr. Faber, Professor Mackert, Professor Eichlin, Dr. Harman, Dean Stamp, Mr. Pollock, Mr. Williams, Miss Ide, Dr. Cotterman, Miss Howard.

THE LIBRARIES

Dr. Hale, Chairman; Dr. Long, Dr. Crothers, Dr. Haring, Dr. Bamford, Mrs. Welsh, Dr. Anderson, Dr. Spencer, Professor Strahorn.

RELIGIOUS AFFAIRS AND SOCIAL SERVICE

Dr. Clarence Wittler
~~Dr. Manny~~, Chairman; Dr. Kemp, Dr. White, Professor Quigley, Mrs. McFarland, Professor Eppley.

ADMISSION, GUIDANCE, AND ADJUSTMENT

Dr. Long, Chairman; Dr. White, Dr. Phillips, Professor Pyle, Dr. Steinmeyer, Dr. Crothers, Dr. Hale, Professor Quigley, Dr. Jenkins, Dr. Haring, Dean Stamp, Mr. Hillegeist, Miss Preinkert.

SCHOLARSHIPS AND STUDENT AID

Dr. Steinmeyer, Chairman; Dr. Cotterman, Professor Eichlin, Dean Stamp, Professor Eppley, Dean Mount.

RESEARCH

Dr. Appleman, Chairman; Dr. Amberson, Dr. Uhlenhuth, Dr. James, Professor Metzger, Dr. Drake, Dr. Manny, Dr. DeVault, Dr. Jull, Dr. Huff.

EXTENSION EDUCATION

Mr. Oswald, Chairman; Miss Kellar, Dr. Manny, Dr. Crothers, Dr. DeVault, Dr. Steinmeyer, Dr. Hale, Dean Small, Professor Richardson, Dr. Warfel.

PUBLIC FUNCTIONS, NON-RESIDENT LECTURES, AND PUBLIC RELATIONS

Dr. Symons, Chairman; Dr. Robinson, Professor Richardson, Dr. Welsh, Mr. Bopst, Dr. Cory, Dr. Schrader, Mr. Snyder, Mr. Pollock, Dr. Besley, Dean Stamp, Dean Mount, Dean DuMez.

INTERCOLLEGIATE ATHLETICS

Professor Eppley, Chairman; Professor Richardson, Dr. Cory, Dr. Kemp, Dr. Supplee.

UNIVERSITY PUBLICATIONS

Mr. Snyder, Chairman; Dr. House, Dr. Falls, Mr. Oswald, Professor Metzger, Dr. Warfel.

COORDINATION OF AGRICULTURAL ACTIVITIES

Dr. Symons, Chairman; Dr. Welsh, Mr. Bopst, Dr. Besley, Mr. Holmes, Dr. Kemp, Mr. Shaw, Dr. Cory, Mr. Oswald, Professor Ikeler.

GENERAL ADVISORY COUNCIL

Dr. Appleman, Chairman; Dr. Hale, Dr. Manny, Dr. Symons, Dr. Warfel, Professor Eppley, Dr. Long, Mr. Oswald, Mr. Snyder, Dr. Steinmeyer.

AGRICULTURAL EXPERIMENT STATION STAFF

J. E. METZGER, A.M. Acting Director

Agricultural Economics:

S. H. DEVAULT, Ph.D. Professor, Agricultural Economics
A. B. HAMILTON, M.S. Associate Professor, Agricultural Economics
W. P. WALKER, M.S. Associate Professor, Agricultural Economics
J. W. CODDINGTON, M.S. Assistant Professor, Agricultural Economics
R. F. BURDETTE, M.S. Instructor, Agricultural Economics
P. R. POFFENBERGER, M.S. Instructor, Agricultural Economics

Agricultural Engineering:

R. W. CARPENTER, A.B., LL.B. Professor, Agricultural Engineering
G. J. BURKHARDT, M.S. Assistant Professor, Agricultural Engineering

Agronomy (Crops and Soils):

J. E. METZGER, M.A. Professor, Agronomy
W. B. KEMP, Ph.D. Professor, Genetics and Statistics
G. F. EPPLEY, M.S. Associate Professor, Agronomy
R. G. ROTHGEB, Ph.D. Associate Professor, Plant Breeding
W. B. POSEY, B.S. Associate Professor, Tobacco
A. W. WOODS, B.S. Instructor, Agronomy
R. P. THOMAS, Ph.D. Professor, Soil Technology
H. B. WINANT, M.S. Assistant Professor, Soil Technology
J. W. MAGRUDER, B.S. Assistant Professor, Soil Erosion
G. F. MADIGAN, M.S. Instructor, Soil Technology
S. P. STABLER, B.S. Assistant, Agronomy
ALBERT WHITE, B.S. Assistant, Agronomy
A. D. HOADLEY, M.S. Assistant, Agronomy

Animal and Dairy Husbandry:

K. C. IKELER, M.S. Professor, Animal Husbandry
K. A. CLARK, M.S. Professor, Animal Husbandry
L. W. INGHAM, M.S. Professor, Dairy Husbandry
DEVOE MEADE, Ph.D. Professor, Dairy and Animal Husbandry
M. H. BERRY, M.S. Associate Professor, Dairy Husbandry
C. W. ENGLAND, Ph.D. Associate Professor, Dairy Manufacturing
ALAN BOGUE, B.S. Assistant, Animal Husbandry

Animal Pathology:

M. F. WELSH, B.S., D.V.M.,
State Veterinarian and Professor, Veterinary Medicine
A. L. BRUECKNER, B.S., D.V.M. Professor, Pathology
H. M. DEVOLT, M.S., D.V.M. Associate Professor, Pathology
L. J. POELMA, M.S., D.V.M. Associate Professor, Pathology
W. R. TEETER, B.S., D.V.M. Instructor, Veterinary Science

Bacteriology:

L. H. JAMES, Ph.D. Professor, Bacteriology
M. T. BARTRAM, Ph.D. Assistant Professor, Bacteriology

Botany, Plant Pathology and Physiology:

C. O. Appleman, Ph.D. Professor, Botany and Plant Physiology
J. B. S. NORTON, D.Sc. Professor, Botany
C. E. TEMPLE, A.M. Professor, Plant Pathology
RONALD BAMFORD, Ph.D. Associate Professor, Botany
R. A. JEHLE, Ph.D. Associate Professor, Plant Pathology
R. G. BROWN, Ph.D. Assistant Professor, Plant Physiology
H. G. DUBUY, Ph.D. Assistant Professor, Plant Physiology
M. W. WOODS, Ph.D. Assistant Professor, Plant Pathology
E. A. WALKER, M.S. Assistant, Plant Pathology

Entomology:

E. N. CORY, Ph.D. Professor, Entomology
H. S. McCONNELL, M.S. Associate Professor, Entomology
L. P. DITMAN, Ph.D. Assistant Professor, Entomology
CASTILLO GRAHAM, M.S. Assistant Professor, Entomology
G. J. ABRAMS, M.S. Instructor, Apiculture

Horticulture:

A. L. SCHRADER, Ph.D. Professor, Horticulture
C. H. MAHONEY, Ph.D. Professor, Olericulture
I. C. HAUT, Ph.D. Associate Professor, Pomology
F. B. LINCOLN, Ph.D. Associate Professor, Plant Propagation
T. H. WHITE, M.S. Instructor, Vegetable Gardening and Floriculture
S. B. CHASE, B.S. Assistant, Pomology
J. B. BLANDFORD Assistant, Horticulture

Poultry Husbandry:

M. A. JULL, Ph.D. Professor, Poultry Husbandry
T. C. BYERLY, Ph.D. Professor, Physiology
G. D. QUIGLEY, B.S. Associate Professor, Poultry Husbandry

Seed Inspection:

F. S. HOLMES, M.S. Seed Inspector
ELLEN P. EMACK Seed Analyst
OLIVE M. KELK Seed Analyst

**EXTENSION SERVICE
ADMINISTRATIVE STAFF
(College Park)**

THOMAS B. SYMONS, M.S., D.Agr., Acting Dean, College of Agriculture, and Director of Extension Service.
E. I. OSWALD, B.S., Professor, and Assistant Director of Extension Service.
VENIA M. KELLAR, B.S., Professor, and Assistant Director Home Demonstration Work.
A. H. SNYDER, B.S., Professor and Editor.
P. E. NYSTROM, M.S., Associate Professor, and Assistant County Agent Leader.
E. G. JENKINS, Associate Professor, and Boys' Club Leader.
DOROTHY EMERSON, Associate Professor, and Girls' Club Leader.
FLORENCE H. MASON, B.S., Associate Professor Extension Home Furnishing, and District Agent.
K. GRACE CONNOLLY, Administrative Assistant.
O. R. CARRINGTON, B.A., Instructor and Illustrator.

**SUBJECT MATTER SPECIALISTS
(Headquarters College Park)**

G. J. ABRAMS, M.S., Instructor Extension Apiculture.
W. R. BALLARD, B.S., Associate Professor Extension Vegetable and Landscape Gardening.
H. C. BARKER, B.S., Professor Extension Dairy Husbandry.
W. C. BEAVEN, B.S., Assistant Professor Extension Marketing.
R. W. CARPENTER, A.B., LL.B., Professor Extension Agricultural Engineering.
K. A. CLARK, M.S., Professor Extension Animal Husbandry.
J. A. CONOVER, B.S., Associate Professor Extension Dairy Husbandry.
E. N. CORY, Ph.D., Professor Extension Entomology, and State Entomologist.
S. H. DEVAULT, Ph.D., Professor Extension Agricultural Economics.
L. S. DODSON, Ph.D., Assistant Professor Extension Sociology.
W. H. EVANS, B.S., Assistant Professor Extension Soil Conservation.
J. M. GWIN, B.S., Associate Professor Extension Egg Marketing.
JESSIE D. HINTON, M.S., Associate Professor Home Management.
H. A. HUNTER, M.S., Associate Professor Extension Canning Technology.
K. C. IKELER, M.E., M.S.A., Professor, and Chairman Animal Industry Group.
R. A. JEHLE, Ph.D., Associate Professor Extension Plant Pathology.
E. C. JENKINS, M. S., Instructor Extension Soil Conservation.
M. A. JULL, Ph.D., Professor, and Chairman Poultry Husbandry.

A. V. KREWATCH, M.S., E.E., Associate Professor Extension Rural Electrification.
 G. S. LANGFORD, Ph.D., Associate Professor Extension Entomology.
 J. W. MAGRUDER, B.S., Assistant Professor Extension Soil Erosion.
 MARGARET MCPHEETERS, M.S., Associate Professor Extension Nutrition.
 DEVOE MEADE, Ph.D., Professor Extension Dairy and Animal Husbandry.
 W. B. POSEY, B.S., Associate Professor Extension Tobacco.
 HARLAN RANDALL, Assistant Professor Extension Music.
 W. H. RICE, B.S., Associate Professor Extension Poultry Husbandry.
 C. S. RICHARDSON, A.M., Professor Extension Speech.
 S. B. SHAW, B.S., Professor Extension Marketing, and Chief State Department of Markets.
 HELEN SHELBY, M.A., Associate Professor Extension Clothing.
 M. M. SHOEMAKER, A.B., M.L.D., Associate Professor Extension Landscape Gardening.
 C. E. TEMPLE, M.A., Professor Extension Plant Pathology, and State Pathologist.
 J. M. VIAL, B.S., Professor Extension Animal Husbandry.
 A. F. VIERHELLER, M.S., Associate Professor Extension Horticulture.
 E. P. WALLS, Ph.D., Associate Professor Extension Canning Technology.
 C. S. WILLIAMS, B.S., Instructor Extension Poultry Husbandry.
 C. F. WINSLOW, A.B., M.F., Assistant Professor Extension Forestry.

ASSISTANT SUBJECT MATTER SPECIALISTS

S. L. CROTHWAIT, M.S. Entomology
 L. E. DOWNEY, B.S. Marketing
 M. S. DOWNEY, B.S. Club Work
 H. A. EDGE, M.S. Farm Management and Statistics
 CASTILLO GRAHAM, M.S. Entomology
 W. E. HARRISON Marketing
 H. J. TWILLEY, B.S. Marketing
 E. A. WALKER, M.S. Plant Pathology

**COUNTY AGENTS
(Field)**

County	Name	Headquarters
Allegany	R. F. MCHENRY, B.S., Associate Professor	Cumberland
Anne Arundel	S. E. DAY, B.S., Assistant Professor	Annapolis
Baltimore	H. B. DERRICK, B.S., Associate Professor	Towson
Calvert	J. B. MORSELL, B.S., Assistant Professor	Prince Frederick
Caroline	G. W. CLENDANIEL, B.S., Assistant Professor	Denton

Carroll	L. C. BURNS, B.S., Associate Professor	Westminster
Cecil	J. Z. MILLER, B.S., Assistant Professor	Elkton
Charles	P. D. BROWN, B.S., Associate Professor	La Plata
Dorchester	W. R. MCKNIGHT, B.S., Assistant Professor	Cambridge
Frederick	H. R. SHOEMAKER, B.S., M.A., Associate Professor,	Frederick
Garrett	J. H. CARTER, B.S., Assistant Professor	Oakland
Harford	H. M. CARROLL, B.S., Assistant Professor	Bel Air
Howard	W. G. MYERS, B.S., Instructor	Ellicott City
Kent	J. D. MCVEAN, B. S., Associate Professor	Chestertown
Montgomery	O. W. ANDERSON, M.S., Associate Professor	Rockville
Prince Georges	P. E. CLARK, B.S., Assistant Professor	Upper Marlboro
Queen Annes	K. W. BAKER, B.S., Assistant Professor	Centerville
St. Marys	J. J. JOHNSON, Instructor	Leonardtown
Somerset	C. Z. KELLER, B.S., Associate Professor	Princess Anne
Talbot	R. S. BROWN, B.S., Assistant Professor	Easton
Washington	M. D. MOORE, M.S., Assistant Professor	Hagerstown
Wicomico	J. P. BROWN, B.S., Assistant Professor	Salisbury
Worcester	R. T. GRANT, B.S., Associate Professor	Snow Hill

Assistant County Agents

Allegany and Washington	H. W. BEGGS, B.S., Instructor	Cumberland
Baltimore	J. W. ENSOR, B.S., Instructor	Towson
Harford	W. S. WILSON, B.S., Instructor	Bel Air
Kent	S. B. SUTTON, Instructor	Chestertown
Montgomery	R. B. KING, A.B., Instructor	Rockville
Carroll, Frederick, and Howard	C. H. REMSBERG, B.S., Instructor	Frederick
Caroline, Queen Annes, and Talbot	CHARLES FULLER, Instructor	Easton

Local Agents—Negro Work

Southern Maryland	J. F. ARMSTRONG, Instructor	Seat Pleasant
Eastern Shore	L. H. MARTIN, Instructor	Princess Anne

**COUNTY HOME DEMONSTRATION AGENTS
(Field)**

<i>County</i>	<i>Name</i>	<i>Headquarters</i>
Allegheny.....	M. A. BEAN, Associate Professor.....	Cumberland
Anne Arundel.....	MRS. G. LINTHICUM, B.S., Associate Professor.....	Annapolis
Baltimore.....	ANNA TRENTHAM, B.S., Associate Professor.....	Towson
Calvert.....	A. M. FEISER, B.S., Instructor.....	Prince Frederick
Caroline.....	B. M. SPAFFORD, B.S., Associate Professor.....	Denton
Carroll.....	A. M. HOFFMAN, M.A., Associate Professor.....	Westminster
Cecil.....	W. G. DENNING, B.A., Assistant Professor.....	Elkton
Charles.....	MARY GRAHAM, Assistant Professor.....	La Plata
Dorchester.....	H. E. BROOKS, A.B., Associate Professor.....	Cambridge
Frederick.....	F. E. WILLIAMS, B.S., Assistant Professor.....	Frederick
Garrett.....	M. E. BARTON, B.S., Assistant Professor.....	Oakland
Harford.....	CATHARINE MAURICE, B.S., Associate Professor.....	Bel Air
Howard.....	M. E. MANAHAN, A.B., Assistant Professor.....	Ellicott City
Kent.....	H. N. SCHELLINGER, Associate Professor.....	Chestertown
Montgomery.....	E. M. TURNER, Associate Professor.....	Rockville
Prince Georges.....	E. M. REGAN, Associate Professor.....	Hyattsville
Queen Annes.....	R. L. KIRK, B.A., Assistant Professor.....	Centerville
St. Marys.....	ETHEL JOY, A.B., Assistant Professor.....	Leonardtwn
Somerset.....	HILDA TOPFER, B.S., Assistant Professor.....	Princess Anne
Talbot.....	MARGARET SMITH, B.S., Associate Professor.....	Easton
Washington.....	A. E. MARTIN, B.S., Assistant Professor.....	Hagerstown
Wicomico.....	JUDITH AULT, B.S., Assistant Professor.....	Salisbury
Worcester.....	LUCY J. WALTER, Associate Professor.....	Snow Hill

Assistant County Home Demonstration Agents

Allegheny.....	M. T. LOAR, Instructor.....	Cumberland
Baltimore and Harford.....	E. R. JOHNSON, B.S., Instructor.....	Towson

Local Home Demonstration Agents (Colored)

Somerset.....	MRS. J. N. CLARK, Instructor.....	Princess Anne
Charles, St. Marys, and Prince Georges.....	D. R. RANSOM, B.S., Instructor, 106 Rhode Island Ave., Brentwood	

Assistant Local Home Demonstration Agent (Colored)

Charles, St. Marys, and Prince Georges.....	C. M. CORBIN, A.M., Instructor, 106 Rhode Island Ave., Brentwood	
---	---	--

**LIVE STOCK SANITARY SERVICE AND DEPARTMENT
OF VETERINARY SCIENCE
(College Park)**

MARK WELSH, D.V.M., Professor of Veterinary Science and State Veterinarian.

J. W. HUGHES, D.V.M., Associate Professor of Veterinary Science and Associate State Veterinarian.

W. R. CRAWFORD, D.V.M., Assistant Professor and Veterinary Inspector.

L. J. POELMA, D.V.M., Associate Professor of Pathology.

H. M. DEVOLT, D.V.M., M.S., Associate Professor of Pathology.

A. L. BRUECKNER, B.S., D.V.M., Professor of Pathology in charge College Park Laboratory.

C. L. EVERSON, D.V.M., Assistant Professor of Veterinary Science in charge Baltimore Laboratory.

C. R. DAVIS, D.V.M., Assistant Professor of Veterinary Science.

IRVIN MOULTHROP, D.V.M., Assistant Professor of Veterinary Science in charge Salisbury Laboratory.

W. R. TEETER, B.S., D.V.M., Instructor of Veterinary Science.

J. W. CROWL, D.V.M., Assistant Professor and Veterinary Inspector.

H. B. WOOD, D.V.M., Assistant Professor and Veterinary Inspector.

C. J. GIBBS, D.V.M., Assistant Professor and Veterinary Inspector.

J. W. HASTINGS, D.V.M., Assistant Professor and Veterinary Inspector.

J. J. JONES, D.V.M., Assistant Professor and Veterinary Inspector.

C. R. LOCKWOOD, D.V.M., Assistant Professor and Veterinary Inspector.

J. H. MULLER, D.V.M., Assistant Professor and Veterinary Inspector.

M. H. TROUT, D.V.M., Assistant Professor and Veterinary Inspector.

THEODORE SCHONDAU, D.V.M., Assistant Professor and Veterinary Inspector.

H. L. ARMSTRONG, D.V.M., Assistant Professor and Veterinary Inspector.

F. H. BENJAMIN, D.V.M., Assistant Professor and Veterinary Inspector.

C. B. BRUNIGER, D.V.M., Assistant Professor and Veterinary Inspector.

W. J. CROSS, D.V.M., Assistant Professor and Veterinary Inspector.

O. K. HOFFMAN, D.V.M., Assistant Professor and Veterinary Inspector.

O. L. LOCKWOOD, D.V.M., Assistant Professor and Veterinary Inspector.

E. J. McLAUGHLIN, D.V.M., Assistant Professor and Veterinary Inspector.

C. A. TURNER, D.V.M., Assistant Professor and Veterinary Inspector.

C. B. WEAGLEY, D.V.M., Assistant Professor and Veterinary Inspector.

CHARLES OMER, D.V.M., Assistant Professor and Veterinary Inspector.

OFFICERS OF INSTRUCTION

For the Year 1937-1938

At Baltimore

PROFESSORS

WILLIAM R. AMBERSON, Ph.D., Professor of Physiology.
GEORGE M. ANDERSON, D.D.S., F.A.C.D., Professor of Comparative Dental Anatomy and Orthodontia.
CHARLES BAGLEY, JR., A.B., M.D., Professor of Neurological Surgery.
ROBERT P. BAY, M.D., F.A.C.S., Professor of Anatomy and Oral Surgery (Dentistry); Professor of Oral Surgery (Medicine).
HARVEY G. BECK, M.D., Sc.D., Professor of Clinical Medicine.
CHARLES F. BLAKE, A.M., M.D., Professor of Diseases of the Rectum and Colon.
CP L. B. BROUGHTON, Ph.D., Professor of Chemistry.
ROSS MCC. CHAPMAN, M.D., Professor of Psychiatry.
CLYDE A. CLAPP, M.D., Professor of Ophthalmology.
ALBERTUS COTTON, A.M., M.D., Professor of Orthopaedic Surgery and Roentgenology.
ANNIE CRIGHTON, R.N., Superintendent of Nurses, Director of the School of Nursing.
J. FRANK CROUCH, M.D., Professor Emeritus of Clinical Ophthalmology and Otolaryngology.
DAVID M. R. CULBRETH, Ph.G., M.D., Professor Emeritus of Botany and Materia Medica.
CARL L. DAVIS, M.D., Professor of Anatomy.
S. GRIFFITH DAVIS, M.S., M.D., Professor of Anesthesia.
BRICE M. DORSEY, D.D.S., Professor of Anesthesia and Exodontia (Dentistry); Professor of Exodontia (Medicine).
L. H. DOUGLAS, M.D., Professor of Clinical Obstetrics.
J. W. DOWNEY, M.D., Professor of Otolaryngology.
ANDREW G. DUMEZ, Ph.G., Ph.D., Professor of Pharmacy, Dean of the School of Pharmacy.
PAGE EDMUNDS, M.D., Professor of Traumatic Surgery.
CHARLES REID EDWARDS, M.D., Professor of Clinical Surgery.
eP CHARLES G. EICHLIN, A.B., M.S., Professor of Physics.
H. K. FLECK, M.D., Clinical Professor of Ophthalmology.
EDGAR B. FRIEDENWALD, M.D., Professor of Clinical Pediatrics.
HARRY FRIEDENWALD, A.B., M.D., Professor Emeritus of Ophthalmology.
JULIUS FRIEDENWALD, A.B., M.D., Professor Emeritus of Gastro-Enterology.
WILLIAM S. GARDNER, M.D., Professor Emeritus of Gynecology.
OREN H. GAVER, D.D.S., F.A.C.D., Professor of Metallurgy and Physiology.
JOSEPH E. GICHNER, M.D., Professor of Clinical Medicine and Physical Therapeutics.

ANDREW C. GILLIS, A.M., M.D., LL.D., Professor of Neurology.
A. J. GILLIS, M.D., Clinical Professor of Genito-Urinary Surgery.
FRANK W. HACHTEL, M.D., Professor of Bacteriology.
HON. HENRY D. HARLAN, A.M., LL.B., LL.D., Dean Emeritus of the School of Law.
WALTER H. HARTUNG, Ph.D., Professor of Pharmaceutical Chemistry.
ROGER HOWELL, Ph.D., LL.B., Professor of Law, Dean of the School of Law.
J. MASON HUNDLEY, JR., M.A., M.D., Professor of Gynecology.
ELLIOTT H. HUTCHINS, A.M., M.D., Professor of Clinical Surgery.
BURT B. IDE, D.D.S., F.A.C.D., Professor of Operative Dentistry.
F. L. JENNINGS, M.D., Professor of Clinical Surgery.
C. LORING JOSLIN, M.D., Professor of Pediatrics.
M. RANDOLPH KAHN, M.D., Clinical Professor of Ophthalmology.
E. FRANK KELLY, Ph.D., D.S.C., Professor Emeritus of Chemistry (Dentistry); Advisory Dean of the School of Pharmacy.
JOHN C. KRANTZ, JR., Ph.D., Professor of Pharmacology.
T. FRED LEITZ, M.D., Clinical Professor of Gastro-Enterology.
G. CARROLL LOCKARD, M.D., Professor of Clinical Medicine.
A. L. LOMAS, M.D., C.M., D.P.H., Superintendent of the University Hospital.
EDWARD A. LOOPER, M.D., D.Oph., Professor of Diseases of the Nose and Throat.
FRANK S. LYNN, M.D., Professor of Clinical Surgery.
ALEXIUS MCGLANNAN, A.M., M.D., LL.D., Professor of Surgery.
ROBERT L. MITCHELL, Ph.D., M.D., Professor of Bacteriology and Pathology.
THEODORE H. MORRISON, M.D., Clinical Professor of Gastro-Enterology.
JOHN RATHBONE OLIVER, A.B., M.D., Ph.D., Professor of the History of Medicine.
ALEXANDER H. PATERSON, D.D.S., F.A.C.D., Professor of Crown and Bridge, and Prosthetic Dentistry.
NORMAN E. PHILLIPS, Ph.D., Associate Professor of Zoology.
MAURICE C. PINCOFFS, B.S., M.D., Professor of Medicine.
J. DAWSON REEDER, M.D., Professor of Diseases of the Rectum and Colon.
G. KENNETH REIBLICH, Ph.D., J.D., LL.M., Professor of Law.
COMPTON RIELY, M.D., Clinical Professor of Orthopaedic Surgery.
HARRY M. ROBINSON, M.D., Professor of Clinical Dermatology.
J. BEN. ROBINSON, D.D.S., F.A.C.D., Professor of Dental Anatomy and Operative Technics, Dean of the School of Dentistry.
J. M. H. ROWLAND, M.D., Sc.D., LL.D., Dean of the School of Medicine.
EDWIN G. W. RUGE, B.A., LL.B., Professor of Law.
ABRAM S. SAMUELS, M.D., Clinical Professor of Gynecology.
WILLIAM H. SCHULTZ, Ph.B., Ph.D., Research Professor of Pharmacology.
ARTHUR M. SHIPLEY, M.D., Sc.D., Professor of Surgery.
W. S. SMITH, M.D., Clinical Professor of Gynecology.
IRVING J. SPEAR, M.D., Professor of Neurology.

HUGH R. SPENCER, M.D., Professor of Pathology.
 HARRY M. STEIN, M.D., Professor of Clinical Medicine.
 JOHN S. STRAHORN, JR., A.B., LL.B., S.J.D., J.S.D., Professor of Law.
 MARVIN R. THOMPSON, Ph.C., Ph.D., Emerson Professor of Pharmacology.
 W. H. TOULSON, A.B., M.Sc., M.D., Professor of Genito-Urinary Surgery.
 EDUARD UHLENHUTH, Ph.D., Professor of Anatomy.
 ALLEN FISKE VOSHELL, A.B., M.D., Professor of Orthopaedic Surgery.
 HENRY J. WALTON, M.D., Professor of Roentgenology.
 LEO A. WALZAK, D.D.S., Professor of Periodontia.
 HUNTINGTON WILLIAMS, M.D., D.P.H., Professor of Hygiene and Public Health.
 WALTER D. WISE, M.D., Professor of Surgery.
 J. CARLTON WOLF, B.S., Phar.D., Sc.D., Professor of Dispensing Pharmacy.
 H. BOYD WYLIE, M.D., Professor of Biological Chemistry.
 WAITMAN F. ZINN, M.D., Clinical Professor of Diseases of the Nose and Throat.

ASSOCIATE PROFESSORS

THOMAS B. AYCOCK, B.S., M.D., Associate Professor of Surgery.
 WALTER A. BAETJER, A.B., M.D., Associate Professor of Medicine.
 J. MCFARLAND BERGLAND, M.D., Associate Professor of Obstetrics.
 HERBERT M. BRUNE, JR., A.B., LL.B., Associate Professor of Law.
 THOMAS R. CHAMBERS, A.M., M.D., Associate Professor of Surgery.
 CARL DAME CLARKE, Associate Professor of Art as Applied to Medicine.
 PAUL W. CLOUGH, B.S., M.D., Associate Professor of Medicine.
 RICHARD G. COBLENTZ, A.B., M.D., Associate Professor of Neurological Surgery.
 B. OLIVE COLE, Phar.D., LL.B., Associate Professor of Economics and Pharmaceutical Law.
 SYDNEY M. CONE, A.B., M.D., Associate Professor of Pathology.
 MONTE EDWARDS, M.D., Associate Professor of Surgery, and Associate in Diseases of the Rectum and Colon.
 A. M. EVANS, M.D., Associate Professor of Surgery.
 FRANK H. FIGGE, Ph.D., Associate Professor of Gross Anatomy.
 MOSES GELLMAN, B.S., M.D., Associate Professor of Orthopaedic Surgery.
 T. CAMPBELL GOODWIN, M.D., Associate Professor of Pediatrics.
 THOMAS C. GRUBB, Ph.D., Associate Professor of Bacteriology.
 O. G. HARNE, Associate Professor of Histology.
 RAYMOND HUSSEY, M.A., M.D., Associate Professor of Medicine.
 EDWARD S. JOHNSON, M.D., Associate Professor of Surgery.
 L. A. M. KRAUSE, M.D., Associate Professor of Medicine.
 R. W. LOCHER, M.D., Associate Professor of Clinical Surgery.
 W. S. LOVE, JR., A.B., M.D., Associate Professor of Medicine and Instructor in Pathology.
 H. J. MALDEIS, M.D., Associate Professor of Medical Jurisprudence.
 CLYDE N. MARVEL, M.D., Associate Professor of Surgery.

SYDNEY R. MILLER, A.B., M.D., Associate Professor of Medicine.
 EMIL NOVAK, M.D., Associate Professor of Obstetrics.
 D. J. PESSAGNO, M.D., Associate Professor of Surgery.
 N. E. PHILLIPS, Ph.D., Associate Professor of Zoology.
 CHARLES A. REIFSCHNEIDER, M.D., Associate Professor of Traumatic Surgery and Oral Surgery (Medicine); Assistant Professor of Oral Surgery (Dentistry).
 A. W. RICHESON, Ph.D., Associate Professor of Mathematics.
 HARRY L. ROGERS, M.D., Associate Professor of Orthopaedic Surgery.
 EMIL G. SCHMIDT, Ph.D., Associate Professor of Biological Chemistry.
 G. M. SETTLE, A.B., M.D., Associate Professor of Neurology and Clinical Medicine.
 D. CONRAD SMITH, Ph.D., Associate Professor of Physiology.
 WILLIAM H. SMITH, M.D., Associate Professor of Clinical Medicine.
 THOMAS R. SPRUNT, M.D., Associate Professor of Medicine.
 RALPH P. TRUITT, M.D., Associate Professor of Psychiatry.
 GRANT E. WARD, A.B., M.D., Associate Professor of Surgery (Medicine); Lecturer in Oncology (Dentistry).
 HENRY E. WICH, Phar.D., Associate Professor of Inorganic and Analytical Chemistry.
 LAWRENCE F. WOOLLEY, M.D., Associate Professor of Psychiatry.
 HELEN E. WRIGHT, R.N., Supervisor of Nursing Education.

ASSISTANT PROFESSORS

MYRON S. AISENBERG, D.D.S., F.A.C.D., Assistant Professor of Embryology and Histology.
 MARVIN J. ANDREWS, Ph.C., B.S. in Phar., M.S., Assistant Professor of Pharmacy.
 BRIDGEWATER M. ARNOLD, A.B., LL.B., Assistant Professor of Law.
 LEO BRADY, A.B., M.D., Assistant Professor of Gynecology.
 H. M. BUBERT, M.D., Assistant Professor of Medicine and Assistant in Bacteriology.
 T. NELSON CAREY, M.D., Assistant Professor of Medicine, and Physician in Charge of Medical Care of Students.
 C. JELLEFF CARR, Ph.D., Assistant Professor of Pharmacology.
 MAURICE FELDMAN, M.D., Assistant Professor of Gastro-Enterology.
 A. H. FINKELSTEIN, M.D., Assistant Professor of Pediatrics.
 LEON FREEDOM, M.D., Assistant Professor of Neurology, and Instructor in Pathology.
 THOMAS K. GALVIN, M.D., Assistant Professor of Gynecology.
 GRAYSON W. GAVER, D.D.S., Assistant Professor of Prosthetic Dentistry.
 HARRY GOLDSMITH, M.D., Assistant Professor of Psychiatry.
 ORVILLE C. HURST, D.D.S., Assistant Professor of Clinical Crown and Bridge.
 ALBERT JAFFE, M.D., Assistant Professor of Pediatrics.
 GEORGE C. KARN, D.D.S., Assistant Professor of Radiodontia.

HARRY E. LATCHAM, D.D.S., F.A.C.D., Assistant Professor of Operative Dentistry.

JOHN E. LEGGE, M.D., Assistant Professor of Medicine.
MILFORD LEVY, M.D., Assistant Professor of Neurology.
HARRY B. MCCARTHY, D.D.S., Assistant Professor of Dental Anatomy.
GEORGE MCLEAN, M.D., Assistant Professor of Medicine.
WALTER C. MERKEL, A.B., M.D., Assistant Professor of Pathology.
ZACHARIAH MORGAN, M.D., Assistant Professor of Gastro-Enterology.
SAMUEL MORRISON, M.D., Assistant Professor of Gastro-Enterology.
HARRY M. MURDOCK, M.D., Assistant Professor of Psychiatry.
H. W. NEWELL, M.D., Assistant Professor of Psychiatry.
M. ALEXANDER NOVEY, A.B., M.D., Assistant Professor of Obstetrics.
WALTER L. OGGESSEN, D.D.S., Assistant Professor of Crown and Bridge.
ROBERT H. OSTER, Ph.D., Assistant Professor of Physiology.
H. R. PETERS, M.D., Assistant Professor of Medicine.
J. G. M. REESE, M.D., Assistant Professor of Obstetrics.
RUSSELL R. RENO, A.B., LL.B., Assistant Professor of Law.
FREDERICK SMITH, M.D., Assistant Professor of Pediatrics.
EDGAR B. STARKEY, Ph.D., Assistant Professor of Organic Chemistry.
GEORGE A. STRAUSS, JR., M.D., Assistant Professor of Gynecology.
VESTA L. SWARTZ, R.N., Assistant Superintendent of Nurses.
GUY P. THOMPSON, M.A., Assistant Professor of Zoology.
JOHN H. TRABAND, M.D., Assistant Professor of Pediatrics.
E. G. VANDEN BOSCHE, Ph.D., Assistant Professor of Inorganic and Physical Chemistry.
C. GARDNER WARNER, A.B., M.D., Assistant Professor of Pathology.
J. HERBERT WILKERSON, M.D., Assistant Professor of Anatomy.
R. G. WILLSE, M.D., Assistant Professor of Gynecology.
THOMAS C. WOLFF, M.D., Assistant Professor of Medicine.
ROBERT B. WRIGHT, B.S., M.D., Assistant Professor of Pathology.

LECTURERS

ALFRED BAGBY, JR., Ph.D., LL.B., Lecturer on Testamentary Law.
J. WALLACE BRYAN, Ph.D., LL.B., Lecturer on Carriers and Public Utilities, and Pleading.
HUNTINGTON CAIRNS, LL.B., Lecturer on Taxation.
JAMES T. CARTER, A.B., LL.B., Ph.D., Lecturer on Legal Bibliography.
HON. W. CALVIN CHESNUT, A.B., LL.B., Lecturer on Federal Procedure.
WALTER L. CLARK, LL.B., Lecturer on Evidence.
HON. EDWIN T. DICKERSON, A.M., LL.B., Lecturer on Contracts.
HON. ELI FRANK, A.B., LL.B., Lecturer on Torts.
E. B. FREEMAN, M.D., Lecturer in Medicine.
JONAS FRIEDENWALD, A.B., M.D., Lecturer in Ophthalmic Pathology.
CHARLES R. GOLDSBOROUGH, M.D., Lecturer in Medicine.
GEORGE GUMP, A.B., LL.B., Lecturer on Future Interests.

T. O. HEATWOLE, M.D., D.D.S., D.Sc., Lecturer on Ethics and Jurisprudence.
RICHARD C. LEONARD, D.D.S., Lecturer on Oral Hygiene and Preventive Dentistry.

JOHN M. MCFALL, M.A., LL.B., Lecturer on Insurance.
GERALD MONSMAN, A.B., LL.B., J.D., Supervisor, Legal Aid Work.
EMORY H. NILES, A.B., B.A. in Jurisprudence, B.C.L., M.A., LL.B., Lecturer on Admiralty.
G. RIDGELY SAPPINGTON, LL.B., Lecturer on Practice; Director of Practice Court.
WILLIAM H. TRIPLETT, M.D., Lecturer on Physical Diagnosis (Dentistry); Assistant in Medicine (Medicine).
R. DORSEY WATKINS, Ph.D., LL.B., Lecturer on Torts.

ASSOCIATES

JOHN R. ABERCROMBIE, A.B., M.D., Associate in Dermatology.
FRANKLIN B. ANDERSON, M.D., Associate in Diseases of the Nose and Throat, and Otology.
H. F. BONGARDT, M.D., Associate in Surgery.
KENNETH B. BOYD, M.D., Associate in Gynecology and Assistant in Obstetrics.
J. EDMUND BRADLEY, M.D., Associate in Pediatrics.
J. S. EASTLAND, M.D., Associate in Medicine.
FRANCIS ELLIS, A.B., M.D., Associate in Dermatology.
L. K. FARGO, M.D., Associate in Genito-Urinary Surgery.
EUGENE L. FLIPPIN, M.D., Associate in Roentgenology.
WETHERBEE FORT, M.D., Associate in Medicine.
FRANK J. GERAGHTY, M.D., Associate in Medicine.
WILLIAM G. GEYER, M.D., Associate in Pediatrics.
SAMUEL S. GLICK, M.D., Associate in Pediatrics.
ALBERT E. GOLDSTEIN, M.D., Associate in Pathology.
HAROLD M. GOODMAN, A.B., M.D., Associate in Dermatology.
HENRY F. GRAFF, A.B., M.D., Associate in Ophthalmology.
L. P. GUNDRY, M.D., Associate in Medicine.
E. P. H. HARRISON, A.B., M.D., Associate in Obstetrics.
JOHN T. HIBBITTS, M.D., Associate in Gynecology.
JOHN F. HOGAN, M.D., Associate in Genito-Urinary Surgery.
CLEWELL HOWELL, M.D., Associate in Pediatrics.
JOSEPH I. KEMLER, M.D., Associate in Ophthalmology.
K. D. LEGGE, M.D., Associate in Genito-Urinary Surgery.
JOHN F. LUTZ, A.B., M.D., Associate in Histology.
W. RAYMOND MCKENZIE, M.D., Associate in Diseases of the Nose and Throat.
L. J. MILLAN, M.D., Associate in Genito-Urinary Surgery.
JOHN H. MILLS, M.D., Associate in Medicine.
FRANK N. OGDEN, M.D., Associate in Biological Chemistry.
F. STRATNER OREM, M.D., Associate in Pediatrics.

THOMAS R. O'ROURK, M.D., Associate in Diseases of the Nose and Throat, and Assistant in Ophthalmology and Otology.
 C. W. PEAKE, M.D., Associate in Surgery.
 BENJAMIN PUSHKIN, M.D., Associate in Neurology.
 CHESTER L. REYNOLDS, M.D., Associate in Psychiatry.
 I. O. RIDGLEY, M.D., Associate in Surgery.
 ISADORE A. SIEGEL, A.B., M.D., Associate in Obstetrics.
 JOSEPH SINDLER, M.D., Associate in Gastro-Enterology.
 E. P. SMITH, M.D., Associate in Gynecology.
 W. J. TODD, M.D., Associate in Pediatrics.
 E. H. TONOLLA, M.D., Associate in Medicine.
 W. W. WALKER, M.D., Associate in Surgery.
 WILLIAM H. F. WARTHEN, M.D., Associate in Hygiene and Public Health.
 R. D. WEST, M.D., Associate in Ophthalmology.
 AUSTIN H. WOOD, M.D., Associate in Genito-Urinary Surgery.

INSTRUCTORS

BENJAMIN ABESHOUSE, Ph.B., M.D., Instructor in Pathology.
 JAMES G. ARNOLD, JR., A.B., M.D., Instructor in Neurology and Assistant in Pathology.
 JOSE R. BERNARDINI, D.D.S., Instructor in Clinical Pedodontia.
 THOMAS S. BOWYER, M.D., Instructor in Gynecology.
 SIMON H. BRAGER, M.D., Instructor in Surgery.
 BALTHIS A. BROWNING, D.D.S., Instructor in Clinical Operative Dentistry.
 DOUGLAS A. BROWNING, D.D.S., Instructor in Bacteriology and Pathology.
 ARTHUR H. BRYAN, V.M.D., B.S., M.A., Instructor in First Aid.
 HENRY F. BUETTNER, M.D., Instructor in Bacteriology.
 M. PAUL BYERLY, M.D., Instructor in Pediatrics, and Assistant in Medicine.
 JOSEPH V. CASTAGNA, M.D., Instructor in Gynecology.
 EARL L. CHAMBERS, M.D., Instructor in Medicine.
 MIRIAM CONNELLY, Instructor in Nutrition and Cookery.
 THOMAS J. COONAN, M.D., Instructor in Pediatrics.
 W. A. H. COUNCILL, M.D., Instructor in Genito-Urinary Surgery.
 EUGENE E. COVINGTON, M.D., Instructor in Gross Anatomy, and Assistant in Diseases of the Rectum and Colon.
 AMELIA C. DEDOMINICIS, Ph.G., B.S. in Phar., M.S., Instructor in Botany.
 PAUL A. DEEMS, D.D.S., Instructor in Bacteriology and Pathology.
 S. DEMARCO, M.D., Instructor in Surgery.
 EDWARD C. DOBBS, D.D.S., Instructor in Pharmacology, Materia Medica, and Therapeutics.
 E. S. EDLAVITCH, M.D., Instructor in Gynecology.
 MEYER EGGNATZ, D.D.S., Instructor in Clinical Orthodontia.
 GAYLORD B. ESTABROOK, Ph.D., Instructor in Physics.
 WILLIAM ELLSWORTH EVANS, M.S., Ph.D., Instructor in Pharmacology.
 LUTHER W. FETTER, D.D.S., Instructor in Clinical Operative Dentistry.
 GARDNER P. H. FOLEY, M.A., Instructor in English and Public Speaking.

JOSEPH D. FUSCO, D.D.S., Instructor in Clinical Exodontia.
 ROBERT W. GARIS, M.D., Instructor in Medicine, and Assistant in Pathology.
 WILLIAM R. GERAGHTY, B.S., M.D., Instructor in Neurological Surgery and Pathology, and Assistant in Surgery.
 M. G. GICHNER, M.D., Instructor in Medicine.
 GEORGIANA S. GITTINGER, M.A., Instructor in Physiological Chemistry.
 HAROLD GOLDSTEIN, D.D.S., Diagnostician.
 KARL F. GREMPER, D.D.S., Instructor in Operative Technics.
 WILLIAM E. HAHN, D.D.S., Instructor in Clinical Exodontia (Dentistry); Instructor in Exodontia (Medicine).
 MARTIN J. HANNA, M.D., Instructor in Histology.
 E. M. HANRAHAN, A.B., M.D., Instructor in Surgery.
 GEORGE E. HARDY, JR., A.B., D.D.S., Instructor in Comparative Dental Anatomy.
 RAYMOND F. HELFRICH, M.D., Instructor in Surgery.
 SAMUEL T. HELMS, M.D., Instructor in Medicine and Genito-Urinary Surgery.
 R. M. HENING, M.D., Instructor in Pediatrics.
 J. FRANK HEWITT, A.B., M.D., Instructor in Surgery.
 HUGH T. HICKS, D.D.S., Instructor in Clinical Periodontia.
 LILLIE R. HOKE, R.N., Instructor in Nursing.
 F. A. HOLDEN, M.D., Instructor in Ophthalmology and Otology.
 Z. VANCE HOOPER, M.D., Instructor in Gastro-Enterology.
 JAROSLAV HULLA, B.S., M.D., Instructor in Obstetrics.
 FRANK HURST, D.D.S., Instructor in Dental Technics.
 JOHN M. HYSON, D.D.S., Instructor in Embryology and Histology.
 CONRAD L. INMAN, D.D.S., Instructor in Anesthesia.
 FREDERICK W. INVERNIZZI, A.B., LL.B., Instructor in Law.
 W. R. JOHNSON, M.D., Instructor in Surgery and Pathology.
 HAMMOND L. JOHNSTON, D.D.S., Instructor in Clinical Orthodontia.
 H. ALVAN JONES, M.D., Instructor in Surgery and Orthopaedic Surgery.
 WALTER L. KILBY, M.D., Instructor in Roentgenology.
 M. S. KOPPELMAN, M.D., Instructor in Gastro-Enterology.
 HARRY V. LANGELUTTING, A.B., M.D., Instructor in Medicine, and Assistant in Pathology.
 SAMUEL LEGUM, A.B., M.D., Instructor in Medicine.
 ERNEST LEVI, M.D., Instructor in Gastro-Enterology.
 JAMES C. LIPSETT, B.S., Instructor in Anatomy.
 LUTHER E. LITTLE, M.D., Instructor in Surgery.
 G. BOWERS MANSDORFER, M.D., Instructor in Pediatrics.
 H. BERTON MCCAULEY, JR., D.D.S., Instructor in Clinical Radiodontia.
 MARION W. MCCREA, Instructor in Embryology and Histology.
 IVAN E. MCDUGLE, Ph.D., Instructor in Social Sciences.
 C. PAUL MILLER, D.D.S., Instructor in Clinical Prosthetic Dentistry.
 ROBERT B. MITCHELL, JR., B.S., M.D., Instructor in Medicine.
 J. VICTOR MONKE, M.A., Instructor in Physiology.

A. C. MONNINGER, M.D., Instructor in Dermatology.
 RUTH MUSSER, A.B., M.S., Instructor in Pharmacology.
 JOSEPH T. NELSON, JR., D.D.S., Instructor in Clinical Pedodontia.
 J. W. NELSON, M.D., Instructor in Surgery.
 ERNEST B. NUTTALL, D.D.S., Instructor in Ceramics.
 J. G. ONNEN, M.D., Instructor in Surgery.
 ARTHUR C. PARSONS, A.M., Instructor in Modern Languages.
 J. A. F. PFEIFFER, M.D., Instructor in Bacteriology.
 JOSEPH POKORNEY, M.D., Instructor in Histology.
 KYRLE W. PREIS, D.D.S., Instructor in Clinical Orthodontia.
 W. ARTHUR PURDUM, B.S. in Phar., M.S., Instructor in Pharmacy.
 J. THOMAS PYLES, M.A., Instructor in English.
 JAMES E. PYOTT, D.D.S., Instructor in Prosthetic Technics.
 HERBERT E. REIFSCHNEIDER, A.B., M.D., Instructor in General Anesthesia.
 ROBERT REITER, M.D., Instructor in Medicine.
 C. VICTOR RICHARDS, M.D., Instructor in Gastro-Enterology.
 MILTON S. SACKS, B.S., M.D., Instructor in Pathology.
 WILLIAM M. SEABOLD, A.B., M.D., Instructor in Neural Anatomy and Pediatrics, and Assistant in Pathology.
 NATHAN SCHERR, D.D.S., Instructor in Clinical Pedodontia.
 RICHARD T. SHACKELFORD, M.D., Instructor in Surgery.
 DANIEL E. SHEHAN, D.D.S., Instructor in Clinical Orthodontia.
 M. S. SHILING, M.D., Instructor in Medicine.
 ARTHUR G. SIWINSKI, A.B., M.D., Instructor in Gross Anatomy, and Assistant in Surgery.
 FRANK J. SLAMA, B.S. in Phar., Ph.D., Instructor in Botany.
 SOL SMITH, M.D., Instructor in Medicine.
 KARL J. STEINMUELLER, A.B., M.D., Instructor in Surgery.
 DAVID TENNER, M.D., Instructor in Medicine.
 ROBERT B. TOWILL, D.D.S., Instructor in Clinical Operative Dentistry.
 I. RIDGEWAY TRIMBLE, M.D., Instructor in Surgery.
 GRANVILLE H. TRIPLETT, D.F., Instructor in Economics.
 M. G. TULL, M.D., Instructor in Hygiene and Public Health.
 HENRY F. ULLRICH, M.D., Instructor in Orthopaedic Surgery.
 HARRY WASSERMAN, M.D., Instructor in Dermatology.
 B. SARGENT WELLS, D.D.S., Instructor in Dental Technics.
 HUGH WHITEHEAD, M.D., Instructor in Medicine.
 L. EDWARD WOJNAROWSKI, D.D.S., Instructor in Clinical Prosthetic Dentistry.
 GEORGE H. YEAGER, B.S., M.D., Instructor in Surgery.

ASSISTANTS

CONRAD B. ACTON, B.S., M.D., Assistant in Pathology and Medicine.
 ELIZABETH AITKENHEAD, R.N., Assistant Instructor in Surgical Technic for Nurses and Supervisor of Operating Pavilion.

BENJAMIN FRANK ALLEN, B.S. in Phar., Assistant in Pharmacy.
 BEATRICE BAMBERGER, M.D., Assistant in Gastro-Enterology.
 MARGARET B. BALLARD, M.D., Assistant in Obstetrics.
 NATHANIEL BECK, M.D., Assistant in Medicine.
 FRANK A. BELLMAN, B.S. in Phar., Assistant in Pharmacy.
 J. G. BENESUNS, M.D., Assistant in Orthopaedic Surgery.
 CARL BENSON, M.D., Assistant in Medicine.
 CATHERINE BLUMBERG, A.B., M.D., Assistant in Obstetrics.
 JOE M. BLUMBERG, B.S., M.D., Assistant in Obstetrics.
 DUDLEY P. BOWE, A.B., M.D., Assistant in Obstetrics.
 BERNICE BRITAIN, R.N., Assistant Superintendent of Nurses.
 LUCY A. BRUDE, R.N., Assistant Instructor in Nursing Private Patients, and Supervisor of Private Halls.
 SAMUEL H. BRYANT, D.D.S., Assistant in Exodontia.
 A. V. BUCHNESS, M.D., Assistant in Surgery.
 WILLIAM H. CARNES, JR., M.D., Assistant in Pathology.
 L. T. CHANCE, M.D., Assistant in Surgery.
 YOLANDE CHANEY, R.N., Supervisor, Out-Patients' Department.
 THOMAS A. CHRISTENSEN, M.D., Assistant in Pediatrics.
 BEVERLY C. COMPTON, A.B., M.D., Assistant in Gynecology.
 MARIE OLGA COX, R.N., Assistant Instructor in First Aid, and Supervisor of Accident and Admission Department.
 ROBERT L. CRAIG, M.D., Assistant in Neurology.
 JOHN M. CROSS, B.S., Assistant in Pharmacy.
 SAMUEL H. CULVER, M.D., Assistant in Surgery.
 DWIGHT M. CURRIE, M.D., Assistant in Surgery.
 E. HOLLISTER DAVIS, A.B., M.D., Assistant in Anesthesia.
 W. ALLEN DECKERT, M.D., Assistant in Surgery, Obstetrics, and Gynecology.
 THEODORE T. DITTRICH, B. S. in Phar., Assistant in Pharmacy.
 HAROLD C. DIX, M.D., Assistant in Ophthalmology.
 JOHN C. DUMLER, B.S., M.D., Assistant in Gynecology and Oncology.
 MELVIN F. W. DUNKER, B. S. in Phar., M. S., Assistant in Pharmaceutical Chemistry.
 MARY EMERY, R.N., Assistant Instructor in Clinical Nursing, and Supervisor of Clinical Department.
 S. C. FELDMAN, M.D., Assistant in Pediatrics.
 J. G. FEMAN, M.D., Assistant in Medicine.
 MORRIS FINE, M.D., Assistant in Medicine.
 PHILIP D. FLYNN, M.D., Assistant in Medicine.
 CARROLL P. FOSTER, B.S. in Phar., Assistant in Chemistry.
 H. D. FRANKLIN, M.D., Assistant in Pediatrics.
 JAMES R. GIBBONS, M.D., Assistant in Otology.
 LOAMIE M. GILBERT, JR., B.S., Assistant in Pharmaceutical Chemistry.
 FRANCIS W. GILLIS, M.D., Assistant in Surgery.
 SHIRLEY M. GLICKMAN, B. S. in Phar., Assistant in Economics.
 JULIUS GOODMAN, M.D., Assistant in Surgery.

HAROLD GOLDSTEIN, D.D.S., Assistant in Exodontia.
 GEORGE GOVATOS, M.D., Assistant in Surgery.
 R. WALTER GRAHAM, JR., M.D., Assistant in Surgery.
 WILLIAM H. GRENZER, M.D., Assistant in Medicine.
 J. WILLIS GUYTON, M.D., Assistant in Surgery.
 GEORGE A. HART, M.D., Assistant in Obstetrics.
 W. GRAFTON HERSPERGER, M.D., Assistant in Medicine.
 BERTHA HOFFMAN, R.N., Assistant Instructor in Medical and Surgical Supplies, and Supervisor of Central Supply Room.
 ANN HOKE, R.N., Assistant Instructor in Surgical Nursing, and Supervisor of Surgical Wards.
 JOHN V. HOPKINS, M.D., Assistant in Orthopædic Surgery.
 ROLLIN C. HUDSON, M.D., Assistant in Dermatology.
 HARRY C. HULL, M.D., Assistant in Pathology and Surgery.
 MARIUS P. JOHNSON, A.B., M.D., Assistant in Pharmacology and Obstetrics.
 ROBERT W. JOHNSON, M.D., Assistant in Surgery.
 E. FERD. KADAN, A.B., M.D., Assistant in Obstetrics.
 CLYDE F. KARNS, M.D., Assistant in Surgery.
 EMILY J. KEMP, M.A., Assistant in Physiology.
 LAURISTON L. KEOWN, M.D., Assistant in Pediatrics.
 MILTON C. LANG, M.D., Assistant in Ophthalmology.
 PHILIP F. LERNER, A.B., M.D., Assistant in Neurology.
 H. EDMUND LEVIN, B.S., M.D., Assistant in Bacteriology and Medicine.
 NATHAN LEVIN, B.S. in Phar., Assistant in Chemistry.
 RUSSELL H. LYDDANE, Assistant in Physics.
 BIRKHEAD MACGOWAN, M.D., Assistant in Otology.
 I. H. MASERITZ, M.D., Assistant in Orthopædic Surgery.
 KATHRYN MATZEN, R.N., Assistant Instructor in Pediatric Nursing, and Supervisor of Pediatric Department.
 MAXWELL L. MAZER, M.D., Assistant in Obstetrics.
 HOWARD B. MCELWAIN, M.D., Assistant in Surgery.
 WILLIAM N. MCFAY, JR., M.D., Assistant in Surgery.
 F. ROWLAND MCGINITY, B.S. in Phar., Assistant in Bacteriology.
 SAMUEL MCLANAHAN, JR., M.D., Assistant in Surgery.
 HUGH B. McNALLY, B.S., M.D., Assistant in Obstetrics.
 BERNARD P. McNAMARA, B.S. in Phar., Assistant in Pharmacology.
 ISRAEL P. MERANSKI, M.D., Assistant in Pediatrics.
 DWIGHT MOHR, M.D., Assistant in Surgery.
 FRANK K. MORRIS, A.B., M.D., Assistant in Surgery, Obstetrics, and Gynecology.
 E. L. MORTIMER, JR., Assistant in Orthopædic Surgery.
 THOMAS A. MOSKEY, JR., B.S. in Phar., Assistant in Pharmacy.
 JOSEPH NURKIN, M.D., Assistant in Diseases of the Nose and Throat.
 JAMES C. OWINGS, M.D., Assistant in Surgery and Diseases of the Rectum and Colon.
 BERNICE F. PIERSON, M.A., Assistant in Zoology.
 H. WILLIAM PRIMAKOFF, M.D., Assistant in Gastro-Enterology.

SAMUEL E. PROCTOR, M.D., Assistant in Surgery.
 JOHN A. RAUDONIS, A.B., B.S. in Phar., Assistant in Pharmacy.
 E. M. REESE, M.S., Assistant in Medicine.
 ROBERT A. REITER, M.D., Assistant in Medicine.
 BENJAMIN S. RICH, M.D., Assistant in Otology.
 THOMAS E. ROACH, M.D., Assistant in Dermatology.
 ELDERED ROBERTS, M.D., Assistant in Oncology.
 HARRY M. ROBINSON, JR., M.D., Assistant in Dermatology.
 RUTH ROUSH, R.N., Assistant Instructor in Nursing, and Supervisor of Wards.
 JOHN G. RUNKLE, M.D., Assistant in Ophthalmology.
 JOHN E. SAVAGE, B.S., M.D., Assistant in Pathology and Obstetrics.
 A. SCAGNETTI, M.D., Assistant in Medicine.
 PAUL SCHENKER, M.D., Assistant in Surgery.
 DOROTHY E. SCHMALZER, B.S. in Phar., Assistant in Biological Chemistry.
 W. J. SCHMITZ, M.D., Assistant in Pediatrics.
 PAUL SCHONFELD, M.D., Assistant in Dermatology.
 HARRY S. SHELLEY, B.S., M.D., Assistant in Genito-Urinary Surgery.
 MARGARET SHERMAN, R.N., Assistant Instructor in Medical Nursing, and Supervisor of Medical Wards.
 ALBERT J. SHOCHAT, M.D., Assistant in Gastro-Enterology.
 GEORGE SILVERSTEIN, M.D., Assistant in Medicine.
 JEROME SNYDER, M.D., Assistant in Ophthalmology.
 HELEN M. STEDMAN, R.N., Assistant Instructor in Obstetrical Nursing, and Supervisor of Obstetrical Department.
 WOOTEN T. SUMERFORD, M.S., Assistant in Pharmaceutical Chemistry.
 ARMINTA TAYLOR, R.N., Night Supervisor.
 T. J. TOUHEY, M.D., Assistant in Surgery.
 W. H. TRIPLETT, M.D., Assistant in Medicine.
 NELSA LEE WADE, M.D., Assistant in Pediatrics.
 EDITH WALTON, Instructor in Massage.
 H. WHITNEY WHEATON, M.D., Assistant in Pediatrics.
 ALBERT R. WILKERSON, M.D., Assistant in Surgery.
 J. H. WILKERSON, M.D., Assistant in Surgery.
 CHARLES A. YOUCH, B.S. in Phar., Assistant in Pharmacy.

PART-TIME INSTRUCTORS (Baltimore)

MARY A. ADAMS, M. A., Principal, School No. 44, Baltimore.
 FRANK BALSAM, Instructor, Boys Vocational School, Baltimore.
 CLYDE B. EDGEWORTH, A.B., LL.B., Supervisor of Commercial Education, Public Schools, Baltimore.
 GEORGE M. GAITHER, Supervisor of Industrial Education, Public Schools, Baltimore.
 PAUL B. GILLEN, M.A., Special Assistant, School No. 70, Public Schools, Baltimore.

WILLIAM F. HAEFNER, B.S., Instructor, Southern High School, Baltimore.
 ELLIS O. KELLER, B.S., Part-time Instructor, University of Maryland.
 FRANCIS A. LITZ, Ph.D., Professor of English, Catholic University, Washington, D. C.
 E. L. LONGLEY, B.S., Instructor, Sheet Metal Work, Garrison Junior High School, Baltimore.
 IRWIN D. MEDINGER, B.S., LL.B., Placement Counselor, Public Schools, Baltimore.
 FRANCES E. NORTH, M.A., Commercial Teacher, Western High School, Baltimore.
 ALBERT G. PACKARD, B.S., Acting Supervisor, Vocational Industrial Education, Public Schools, Baltimore.
 ROBERT L. SMITH, B.S., Instructor, Junior High School No. 1, Baltimore.
 JOHN L. STENQUIST, Ph.D., Director, Bureau of Research, Public Schools, Baltimore.
 E. H. STEVENS, M.A., J.D., Extension Instructor, University of Maryland, Baltimore.
 CHARLES W. SYLVESTER, B.S., Director of Vocational Education, Public Schools, Baltimore.
 PAUL A. WILLHIDE, B.S., Principal, School No. 57, Baltimore.
 RILEY S. WILLIAMSON, Ed.M., Head of Scientific Technical Department, Baltimore City College.
 HOWARD E. ZIEFLE, B.S., Acting Principal, School No. 294, Baltimore.
 GLEN D. BROWN, A.B., M.A., Professor of Industrial Education.

LIBRARIANS

(Baltimore)

CARL W. E. HINTZ, A.B., A.M.L.S.....	Librarian
<i>Dental Library</i>	
BEATRICE MARRIOTT.....	Assistant Librarian
MARGARET E. KOBER, A.B.....	Assistant
POLLY JACOBSON, A.B.....	Cataloguer
<i>Law Library</i>	
ANNE C. BAGBY, A.B.....	Assistant Librarian
<i>Medical Library</i>	
RUTH LEE BRISCOE.....	Assistant Librarian
JULIA E. WILSON, B.S.....	Assistant
<i>Pharmacy Library</i>	
KATHLEEN B. HAMILTON.....	Assistant Librarian
ANN LEMEN CLARK.....	Cataloguer

FACULTY COMMITTEES

At Baltimore

LIBRARY

(Medicine) Doctors Lockard, Wylie, and Love, Jr.; (Dentistry) Doctors Gaver, Aisenberg, and Hardy; (Pharmacy) Dean DuMez, Messrs. Hartung, M. R. Thompson, and Slama; (Law) Messrs. Reiblich and Strahorn.

The Faculty Councils of the Baltimore Schools are included in the descriptive statements of the respective schools in Section II.

The Faculty Committees of the Baltimore Schools are given in the separate announcements issued by the several schools.

SECTION I

General Information

HISTORICAL STATEMENT

The history of the present University of Maryland, before the merger in 1920, is the history of two institutions: the old University of Maryland in Baltimore and the Maryland State College (formerly Maryland Agricultural College) in College Park.

The beginning of this history was in 1807, when a charter was granted to the College of Medicine of Maryland. The first class was graduated in 1810. A permanent home was established in 1814-1815 by the erection of the building at Lombard and Greene Streets in Baltimore, the oldest structure in America devoted to medical teaching. Here was founded one of the first medical libraries (and the first medical school library) in the United States. In 1812 the General Assembly of Maryland authorized the College of Medicine of Maryland to "annex or constitute faculties of divinity, law, and arts and sciences," and by the same act declared that the "colleges or faculties thus united should be constituted an university by the name and under the title of the University of Maryland." By authority of this act, steps were taken in 1813 to establish "a faculty of law," and in 1823 a regular school of instruction in law was opened. Subsequently there were added a college of dentistry, a school of pharmacy, and a school of nursing. No significant change in the organization of the University occurred until 1920, more than one hundred years after the original establishment in 1812.

The Maryland State College was chartered in 1856 under the name of the Maryland Agricultural College, the second agricultural college in the Western Hemisphere. For three years the College was under private management. In 1862 the Congress of the United States passed the Land Grant Act. This act granted each State and Territory that should claim its benefits a proportionate amount of unclaimed western lands, in place of scrip, the proceeds from the sale of which should apply under certain conditions to the "endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." This grant was accepted by the General Assembly of Maryland, and the Maryland Agricultural College was named as the beneficiary of the grant. Thus the College became, at least in part, a State institution. In the fall of 1914 control was taken over en-

tirely by the State. In 1916 the General Assembly granted a new charter to the College, and made it the Maryland State College.

In 1920, by an act of the State Legislature, the University of Maryland was merged with the Maryland State College, and the name of the latter was changed to the University of Maryland.

All the property formerly held by the old University of Maryland was turned over to the Board of Trustees of the Maryland State College, and the name was changed to the Board of Regents of the University of Maryland. Under this charter every power is granted necessary to carry on an institution of higher learning and research. It provides that the University shall receive and administer all existing grants from the Federal Government for education and research and all future grants which may come to the State from this source. The University is co-educational in all its branches.

ADMINISTRATIVE ORGANIZATION

The government of the University is vested by law in a Board of Regents, consisting of nine members appointed by the Governor each for a term of nine years. The administration of the University is vested in the President. The University Senate and the Administrative Council act in an advisory capacity to the President. The composition of these bodies is given elsewhere.

The University organization comprises the following administrative divisions:

- College of Agriculture.
- Agricultural Experiment Station.
- Extension Service.
- College of Arts and Sciences.
- College of Commerce.
- College of Education.
- College of Engineering.
- College of Home Economics.
- Graduate School.
- Summer Session.
- Department of Military Science and Tactics.
- School of Dentistry.
- School of Law.
- School of Medicine.
- School of Nursing.
- School of Pharmacy.
- The University Hospital.

The University faculty consists of the President, the Deans, the instructional staffs of all the divisions of the University, and the Librarians. The faculty of each college or school constitutes a group which passes on all questions that have exclusive relationship to the division represented. The President is ex-officio a member of each of the faculties.

The organization and activities of the several administrative divisions are described in full in the appropriate chapters of Section II.

PRINCESS ANNE COLLEGE

Princess Anne College, located at Princess Anne, Somerset County, is maintained for the education of Negroes in agriculture, the mechanic arts, and home economics.

LOCATION

The University of Maryland is located at College Park, in Prince Georges County, Maryland, eight miles from Washington and thirty-two miles from Baltimore. The campus fronts on the Baltimore-Washington Boulevard.

The Professional Schools of the University and the University Hospital are located in the vicinity of Lombard and Greene Streets, Baltimore.

GROUNDS AND BUILDINGS

College Park

Grounds. The University grounds at College Park comprise 291 acres. The site is healthful and attractive. The terrain is varied. A broad rolling campus is surmounted by a commanding hill which overlooks a wide area of surrounding country and insures excellent drainage. Many of the original forest trees remain. Most of the buildings are located on this eminence. The adjacent grounds are laid out attractively in lawns and terraces ornamented with shrubbery and flower beds. Below the brow of the hill, on either side of the Washington-Baltimore Boulevard, lie the drill grounds and the athletic fields. About 100 acres are used by the College of Agriculture for experimental purposes, and for orchards, vineyards, poultry yards, etc. Recently 270 acres additional have been purchased, about two miles north of the University campus, and this land is devoted especially to research in horticulture.

The water supply and sewage disposal are provided by the Washington Suburban Sanitary Commission.

Buildings. The buildings comprise about 28 individual structures, which provide facilities for the several activities and services carried on at College Park.

Administration and Instruction. This group consists of the following buildings: the Agriculture Building, which accommodates the College of Agriculture, the College of Education, the Agricultural and Home Economics Extension Service, and the Auditorium; the Library Building, which houses the Library and the Executive Offices; Morrill Hall, which accommodates in part the College of Arts and Sciences; the Old Library Building,

in which are the offices of the Dean of Women; the Engineering Building; the Student Center, in which are located the offices of the student publications; the Home Economics Building; the Chemistry Building for instruction in Chemistry and for State work in analysis of feeds, fertilizers, and agricultural lime; the Dairy Building; the Horticulture Building, which adequately accommodates all class room and laboratory work in horticulture, and also work in horticultural research for both Government and State; the Plant Research Building; the poultry buildings; the Central Heating Plant; and an Arts and Sciences Building.

Experiment Station. The offices of the Director of the Experiment Station are in the Agriculture Building, while other buildings house the laboratories for research in soils and for seed testing. Other structures are as follows: an agronomy building; a secondary horticulture building; and barns, farm machinery building, silos, and other structures required in agricultural research.

Physical Education. This group consists of The Ritchie Coliseum, which provides quarters for all teams, an athletic office, trophy room, rooms for faculty, and visiting team rooms, together with a playing floor and permanent seating arrangements for 4,262 persons; Byrd Stadium, with a permanent seating capacity of 8,000, also furnished with rest rooms for patrons, dressing rooms, and equipment for receiving and transmitting information concerning contests in progress; a Gymnasium, used in part by the Military Department and generally for physical education work; and the Girls' Field House, for all girls' sports. Playing and practice fields and tennis courts are adjacent to the field houses.

Dormitories. Two dormitories, Calvert Hall and Silvester Hall, provide accommodations for 462 men students. Accommodations for 228 women students are provided by Margaret Brent Hall and the new dormitory, completed this year. Gerneaux Hall, formerly used as a dormitory for women students, is now occupied by one of the sororities. The Practice House, which for several years was used as a dormitory, has been turned over entirely to the Home Economics Department.

Service Structures. This group includes the Central Heating Plant; the Infirmary, with accommodations for twenty patients, physician's office, operating room, and nursing quarters; Dining Hall, and Laundry.

U. S. Bureau of Mines Building. A new research laboratory building for the United States Bureau of Mines has been completed this year, and is known as the Eastern Experiment Station. In addition to the general laboratories, which are being used for instruction in engineering as well as by the United States Government, there is a geological museum and technical library, one of the finest of its kind in the United States.

Baltimore

The group of buildings located in the vicinity of Lombard and Greene Streets provides available housing for the Baltimore division of the

University. The group comprises the original Medical School building, erected in 1814, the University Hospital, the Central Office building, a new Laboratory building for the Schools of Dentistry and Pharmacy, and a new Law School building. Full descriptions of these parts of the University equipment are found in the chapters devoted to the Baltimore Schools in Section II.

A new University Hospital, at the corner of Greene and Redwood Streets, containing 400 beds and providing fine clinical facilities, was completed in November, 1934.

THE UNIVERSITY LIBRARIES

Libraries are maintained at both the College Park and Baltimore branches of the University.

The Library Building at College Park, completed in 1931, is an attractive, well equipped, and well lighted structure. The reading room on the second floor seats 236, and has about 5,000 reference books and bound periodicals on open shelves. The five-tier stack-room is equipped with 18 carrels for the use of advanced students. About 12,000 of the 70,000 volumes on the campus are shelved in the Chemistry and Entomology departments, the Graduate School, and other units.

Facilities in Baltimore consist of the Libraries of the School of Medicine, containing approximately 18,000 volumes; the School of Dentistry, 6,000 volumes; the School of Pharmacy, 7,000 volumes; and the School of Law, 15,000 volumes. The Medical Library is housed in Davidge Hall; the remaining three libraries have adequate quarters in the buildings of their respective schools, where they are readily available for use. Facilities for the courses in Arts and Sciences are offered jointly by the Libraries of the Schools of Dentistry and Pharmacy.

The libraries of the University total in the aggregate about 116,000 bound volumes and large collections of unbound journals. The Library is a depository for publications of the United States Government, and numbers some 12,000 documents in its collections.

Through the Inter-Library Loan Service of the Library of Congress, the United States Department of Agriculture, and other libraries in Washington, the University Library is able to supplement its reference service, either by arranging for personal work in these libraries or by borrowing material from them.

ADMISSION

All correspondence regarding admission should be addressed to the Director of Admissions. That pertaining to the colleges of Agriculture, Arts and Sciences, Commerce, Education, Engineering, Home Economics, the Graduate School, and the Summer Session should be mailed to the University of Maryland, College Park; that pertaining to the schools of Dentistry, Law, Medicine, Nursing, and Pharmacy should be mailed to the University of Maryland, Lombard and Greene Streets, Baltimore.

Information about admission to the professional schools in Baltimore will be found in their respective sections of this catalogue (see Index), and in the bulletins issued by the several schools.

Age of Applicants: A student who is less than sixteen years of age must live with his parents or guardians.

Admission Procedure: Candidates for admission should procure application blanks from the office of the Director of Admissions as early as possible. It would not be too soon for secondary school seniors to write for the blanks shortly after the beginning of their final school term.

If the application, with the school record through the first semester of the senior year, is returned before graduation to the Director of Admissions, then the applicant should request the principal to send in a supplementary report after graduation—with the grades of the final term, a statement of the date of graduation, and the rank of the student in the graduating class. All other candidates for admission, also, should submit their applications as early as possible.

A certificate of admission and material pertaining to registration will be mailed to each applicant whose credentials are acceptable. The Director of Admissions will be pleased to advise, either in person or by correspondence, with prospective students, their parents, or other interested persons concerning the preparation of the applicants, or on any questions that relate to admission to the University.

Time of Admission: Applicants for admission should plan to enter the University at the beginning of the school year in September. It is possible, however, to be admitted to certain curricula at the beginning of either semester.

Registration: English and aptitude tests will be given on Wednesday, September 14, 1938. Freshmen will register on Thursday and Friday, September 15 and 16, 1938. All other new students will register on Saturday, September 17, 1938.

A special freshman program will be followed between registration and the beginning of the instruction schedule, the object of which is to complete the organization of freshmen so that they may begin their regular work promptly and effectively, and familiarize themselves with their new surroundings.

ADMISSION FROM SECONDARY SCHOOLS

An applicant from a secondary school may be admitted either by certificate or by examination or by a combination of the two methods.

Admission by Certificate: An applicant must be a graduate of a secondary school which is approved by the State Board of Education of Maryland or by an accrediting agency of at least equal rank, and which requires for graduation not fewer than fifteen units. A unit represents a year's study in any subject in a secondary school, and constitutes approximately one-fourth of a full year's work. It presupposes a school year of 36 to 40 weeks, recitation periods of from 40 to 60 minutes, and for each study four or five class exercises a week. A double laboratory period in any science or vocational study is considered equivalent to one class exercise. Normally, not more than three units are allowed for four years of English. If, however, a fifth course has been taken, an extra unit will be granted.

A graduate of an approved secondary school in Maryland who meets the state certification requirements, or a graduate of an approved secondary school in the District of Columbia who meets the certification grade of his secondary school, will be admitted upon presentation of the proper certificate from the principal. A graduate who does not meet fully these requirements may be required to present further evidence of ability to undertake college work. At the discretion of the Director of Admissions, this may include an appropriate examination. Admission examinations will be given during the first week of each of the months of July, August, and September at College Park. Applicants concerned will be notified as to when they should report.

An applicant for admission by certificate from a secondary school not located in Maryland or in the District of Columbia must be recommended by the principal, and must have attained the certification-to-college grade of the school. If the school does not have such a quality grade, then the average of the applicant's school grades must be at least ten points or one letter higher than the lowest passing grade of the school.

Admission by Examination: An applicant from a secondary school who is not eligible for admission by certificate may seek entrance through either of two types of examination: (1) he may appeal to the Director of Admissions for permission to report at the University for an examination, the result of which will be used in conjunction with the secondary school record to determine whether the applicant should be admitted; or (2) he may be admitted on presenting evidence of having passed satisfactorily other approved examinations in the subjects required for graduation from an accredited secondary school. Such examinations are offered by the College Entrance Examination Board, 431 West 117th Street, New York City; the Regents of the University of the State of New York, Albany; and the Department of Public Instruction of the State of Pennsylvania, Harrisburg.

UNDERGRADUATE CURRICULA

The following curricula are available. The letters placed after the names of the curricula (see Index) refer to the columnar arrangement of the entrance requirements below.

College of Agriculture

- Agronomy
- Farm Crops—A
- Soils—A
- Animal Husbandry—A
- †Bacteriology—A
- Botany
 - General Botany and Morphology—A
 - Plant Pathology—A
 - Plant Physiology—A
- Dairy Husbandry
 - Dairy Manufacturing—A
 - Dairy Production—A
- §Education—A
- Entomology—A
- Farm Management—A
- General Agriculture—A
- Horticulture
 - Floriculture—A
 - Landscape Gardening—A
 - Olericulture—A
 - Pomology—A
- Poultry Husbandry—A
- Preveterinary—A

College of Arts and Sciences

- *Bacteriology—A
- Chemistry
 - Biological (Agricultural)—C
 - General—C
 - Industrial—C
- †Economics—A
- §Education—A
 - English—A
 - French—A
 - General Science—A
 - German—A
 - History—A
 - Mathematics—C
 - Physics—C
 - Political Science—A
 - Pre dental—A

College of Arts and Sciences (cont'd)

- ‡Prelaw—A
- Premedical—D
- Prenursing—A
- Psychology—A
- Sociology—A
- Spanish—A
- Zoology—A

College of Commerce

- Accounting—A
- Agricultural Economics—A
- Cooperative Organization and Administration—A
- †Economics—A
- Finance—A
- General Business—A
- Marketing and Sales Administration—A
- ‡Prelaw—A

College of Education

- *Agricultural—A
- †Arts and Sciences—A
- Commercial—E
- ¶Home Economics—B
- Industrial—A
- Physical—A

College of Engineering

- Aeronautical—C
- Chemical—C
- Civil—C
- Electrical—C
- Mechanical—C

College of Home Economics

- Applied Art—B
- §Education—B
- Extension—B
- Foods—B
- General—B
- Institution Management—B
- Textiles and Clothing—B

*Also College of Agriculture. ‡Also College of Commerce. §Also College of Education. †Also College of Arts and Sciences. ¶Also College of Home Economics.

The unit requirements for admission to the foregoing curricula are indicated in the following table, the requirements for a particular curriculum

being given in the column headed by the letter which follows the name of the curriculum in the above list:

	A	B	C	D	E
English	3	3	3	3	3
Algebra	1		**2	1	1
Plane Geometry.....	*1		1	1	
Solid Geometry.....			**1/2		
Mathematics		2			
History	1	1	1	1	1
Science	1	1	1	1	1
Foreign Language.....				2	
Stenography					2
Typewriting					1
Bookkeeping					1
Electives	8	8	6 1/2	6	5

Conditional Admission: An applicant who is eligible otherwise to be admitted to the University, but who cannot meet the specific entrance units required for the curriculum of his choice may register as a non-classified student. Classification as a regular student is automatic when the entrance deficiency is absolved.

ADMISSION BY TRANSFER FROM OTHER COLLEGES AND UNIVERSITIES

A candidate for admission by transfer from another college or university must present evidence that he has maintained a satisfactory and honorable record at the other institution. The applicant should file as early as possible the formal application blank (which may be obtained from the office of the Director of Admissions), together with the official transcripts of the secondary school and college records, including a statement of honorable dismissal.

Advanced standing is granted for courses completed elsewhere which are equivalent in extent and quality to those given by the University of Maryland, subject to the following provisions:

- (1) Regardless of the amount of advanced standing a student may be allowed, the baccalaureate degree will not be conferred under any circumstances until a year of resident work shall have been completed.

*In the College of Agriculture, with the exception of curricula which include trigonometry, a second unit of any mathematics may be substituted for the requirement in plane geometry, provided the applicant ranks in the upper three-fifths of his secondary school class.

**An applicant who cannot offer the second unit in algebra and the one-half unit in solid geometry may be admitted to the College of Engineering, and to the curricula in Chemistry, Mathematics, and Physics, but will be obliged during the first semester to make up the advanced algebra and solid geometry. The regular first semester mathematics would be taken in the second semester, and the second semester mathematics would be taken in the summer session. An applicant who does not have entrance credit for solid geometry would take this course concurrently with the regular first semester mathematics. Students in either of these groups would register with regular classification.

- (2) Regardless of the amount of advanced standing allowed, the baccalaureate degree will not be conferred until the student shall have satisfied the full requirements of the curriculum elected.
- (3) If the character of the student's work in any subject is such as to create doubt as to the quality of that which preceded it elsewhere, the University reserves the right to revoke at any time any advanced standing credit allowed.
- (4) Credit will not be granted for more than one-fourth of the total credit value of those courses which were passed with the lowest passing grade of the college attended.
- (5) An applicant may request an examination for advanced standing in any subject, in keeping with the requirements prescribed by the University of Maryland.

UNCLASSIFIED STUDENTS

Applicants who are at least twenty-one years of age and who have had insufficient preparation to be admitted to any of the four-year curricula may register, with the consent of the Director of Admissions, for such courses as they may appear fitted to take. The student is ineligible to matriculate for a degree, however, so long as he retains an unclassified status.

REQUIREMENT IN MILITARY INSTRUCTION

All male students, if citizens of the United States, whose bodily condition indicates that they are physically fit to perform military duty are required to take military training for a period of two years, as a prerequisite to graduation.

Graduation Requirements for Students Excused from Military Instruction and Physical Education

Students excused from basic military training or physical education without academic credit shall be required to take an equivalent number of credits in other subjects, so that the total credits required for a degree in any college shall not be less than 127 hours. The substitution must be approved by the dean of the college concerned.

REQUIREMENTS IN PHYSICAL EDUCATION FOR WOMEN

All women students whose bodily condition indicates that they are physically fit for exercise are required to take physical education for a period of two years, as a prerequisite to graduation.

HEALTH SERVICE

PHYSICAL EXAMINATIONS

As soon as possible after the opening of the fall semester, as a measure for protecting the general health, all students who enter the undergraduate colleges at College Park are given a physical examination. The examination of the men students is conducted by the University Physician in coöperation with the Physical Education and Military Departments.

The examination of women students is conducted by a woman physician in coöperation with the office of the Dean of Women and the office of Physical Education for Women. The woman physician has her offices in the Girls' Field House. She is available for consultation by all women students at hours to be arranged.

INFIRMARY RULES

1. All undergraduate students may receive dispensary service and medical advice by reporting at the Infirmary during regular office hours established by the physician in charge.

Nurses' office hours 8 to 10 A. M. and 6 to 7 P. M.

Doctor will have office hour from 12 to 1 daily except Sundays.

Office hours on Sunday by appointment only.

2. A registered nurse is on duty at all hours at the Infirmary. Between the hours of 2 and 4 in the afternoon, quiet hour is observed. During this time students are requested not to report except in case of an emergency.

3. Students not living in their own homes who need medical attention and who are unable to report to the Infirmary should call one of the University physicians. Such visits will be free of charge except in cases where additional visits are necessary. For such additional visits as may be necessary, the University physician will make his usual charge. But, if a student so desires, he may call a physician of his own choice and at his own expense.

4. Students not residing in their own homes may, upon the order of the University physician, be cared for in the Infirmary to the extent of the facilities available. Students who live off the campus will be charged a fee of two dollars a day.

5. The visiting hours are 1 to 2, 6:30 to 8 p. m. daily. No visitor may see any patient until permission is granted by the nurse in charge.

6. Hospitalization is not available at the Infirmary for graduate students and employees. Dispensary service, however, is available for graduate students and employees who are injured in University service or University activities.

7. For employees of the University who handle food and milk, the University reserves the right to have its physician make physical examinations,

and such inspections of sanitary conditions in homes as in the opinion of the University physician, may be desirable.

8. Students living in the dormitories who are unable to attend classes because of illness or who are unable to report to the Infirmary should report to their dormitory matrons, who will notify the Infirmary immediately.

9. Students who are ill in their homes, fraternity houses, or dormitories and wish a medical excuse for classes missed during the time of illness must present written excuses from their physicians, parents, or house mothers. These excuses will be approved by the University physicians or nurse.

REGULATIONS, GRADES, DEGREES

REGULATION OF STUDIES

Course Numbers. Courses for undergraduates are designated by numbers 1—99; courses for advanced undergraduates and graduates, by numbers 100—199*; and courses for graduates, by numbers 200—299.

The letter following the number of a course indicates the semester in which it is offered; thus, course 1f is offered in the first semester; 1s, in the second semester. The letter "y" indicates a full-year course. The number of hours' credit for each course is indicated by the arabic numeral in parentheses following the title of the course. No credit is allowed for a "y" course until it is completed.

Schedule of Courses. A semester time schedule of courses, giving days, hours, and rooms, is issued as a separate pamphlet at the beginning of each semester. Classes are scheduled beginning 8:20 A. M.

Definition of Credit Unit. The semester hour, which is the unit of credit in the University, is the equivalent of a subject pursued one period a week for one semester. Two or three periods of laboratory or field work are equivalent to one lecture or recitation period. The student is expected to devote three hours a week in classroom or laboratory or in outside preparation for each credit hour in any course.

Number of Hours. The normal student load is from 15 to 19 semester hours, according to curriculum and year. These variations are shown in the appropriate chapters in Section II describing the several divisions of the University. No student may carry either more or less than the prescribed number of hours without specific permission from the dean of his college.

EXAMINATIONS AND GRADES

Examinations. Examinations are held at the end of each semester in accordance with the official schedule of examinations. Students are required to use the prescribed type of examination book in final examinations; and in tests, when requested to do so by the instructor.

Final examinations are held in all courses except in classes where the

* But not all courses numbered 100 to 199 may be taken for graduate credit.

character of the work will permit the instructor to note frequently the progress and proficiency of the student—in which case they may be omitted upon approval of the head of the department and dean of the college. Periodic examinations and tests are given during regularly scheduled class periods. Final examinations, where required, are given according to schedule and are of not more than three hours' duration each.

Grading. The system of grading is uniform in the different departments and divisions of the University.

The following grade symbols are used: A, B, C, D, E, F, and I. The first four, A, B, C, and D, are passing; E, condition; F, failure; I, incomplete.

Grade A denotes superior scholarship; grade B, good scholarship; grade C, fair scholarship; and grade D, passing scholarship.

A student who receives the grade D in more than one-fourth of the credits required for graduation must take additional courses or repeat courses until he has the required number of credits for a degree, three-fourths of which carry a grade above D. A student is not permitted to repeat a course to raise a D grade after a lapse of two years.

In the case of a candidate for a combined degree or of a transfer student with advanced standing, a grade of D will not be recognized for credit towards a degree in more than one-fourth of the credits earned at this institution.

A student with the grade of E is conditioned in the course. The grade of E will be changed by a reëxamination during the succeeding semester to D or F. The grade cannot be raised to a grade higher than D. Only one reexamination is permitted, and if a student does not remove the condition at the time scheduled for this reëxamination the condition becomes a failure. No student is permitted to take a reëxamination to remove a condition within four weeks after the condition has been acquired.

The mark I (Incomplete) is exceptional, and is given only to a student whose work has been qualitatively satisfactory and who has a proper excuse for not having completed the requirements of the course. In case of a student whose work has been unsatisfactory and who is absent from the final examination, the grade will be E or F, in accordance with the character of the previous work. In cases where the mark I is given the student must complete the work assigned by the instructor by the end of the first semester in which that subject is again offered, or the grade becomes F.

Work of grade D, or of any passing grade, cannot be raised to a higher grade except by repeating the course. This must be done within a period of two years after the course was originally taken. A student who repeats a course for which he has received credit for work done at this University or elsewhere, must meet all the requirements of the course, including regular attendance, laboratory work, and examinations. His final grade will be substituted for the grade already recorded, but he will not receive any additional credit for the course.

REPORTS

Written reports of grades are sent by the Registrar to parents or guardians at the close of each semester.

ELIMINATION OF DELINQUENT STUDENTS

The University reserves the right to request at any time the withdrawal of a student who cannot or does not maintain the required standard of scholarship, or whose continuance in the University would be detrimental to his or her health, or to the health of others, or whose conduct is not satisfactory to the authorities of the University. *Students of the last class may be asked to withdraw even though no specific charge be made against them.*

JUNIOR STANDING

No student will be certified as a junior, or be permitted to select a major or minor, or to continue in a fixed curriculum until he or she shall have passed with an average grade as high as C (2.0) the minimum number of semester credits required for junior standing in any curriculum.

DEGREES AND CERTIFICATES

The University confers the following degrees: Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Civil Engineer, Mechanical Engineer, Electrical Engineer, Bachelor of Laws, Doctor of Medicine, Doctor of Dental Surgery, and Bachelor of Science in Pharmacy.

Students in the two-year and three-year curricula are awarded certificates.

The requirements for graduation vary according to the character of work in the different colleges and schools. For full information regarding the requirements for graduation in the several colleges consult the appropriate chapters in Section II.

No baccalaureate degree will be awarded to a student who has had less than one year of resident work in this University. The last thirty credits of any curriculum leading to a baccalaureate degree must be taken in residence at the University of Maryland.

At least three-fourths of the credits required for graduation must be earned with grades of A, B, and C.

In the case of a candidate for a combined degree or of a transfer student with advanced standing, a grade of D will not be recognized for credit towards a degree in more than one-fourth of the credits earned at this institution.

Each candidate for a degree must file in the office of the Registrar before March 1st of the year in which he expects to graduate, a formal application for a degree. In general, candidates for degrees to be conferred at the annual commencement, must be present to receive the degrees.

EXPENSES

MAKE ALL CHECKS PAYABLE TO THE UNIVERSITY OF MARYLAND FOR THE EXACT AMOUNT OF THE SEMESTER CHARGES.

In order that the cost of operation may be reduced, all fees are due and payable as a part of the student's registration, and all persons must come prepared to pay the full amount of the semester charges. No student will be admitted to classes until such payment has been made.

EXPENSES AT COLLEGE PARK

The University reserves the right to make such changes in fees and other costs as any occasion may make necessary. Such changes, however, in comparison with the total cost to the student would be only nominal.

FEES FOR UNDERGRADUATE STUDENTS

Maryland

	First Semester	Second Semester	Total
Fixed Charges	\$67.50	\$67.50	\$135.00
Athletic Fee	15.00	.....	15.00
*Special Fee	10.00	.....	10.00
**Student Activities Fee.....	10.00	.....	10.00
Infirmary Fee	3.00	.....	3.00
Post Office Box.....	2.00	.....	2.00
	\$107.50	\$67.50	\$175.00

District of Columbia

	First Semester	Second Semester	Total
General Fees listed above.....	\$107.50	\$67.50	\$175.00
Non-Resident Fee	25.00	25.00	50.00
	\$132.50	\$92.50	\$225.00

Other States and Countries

	First Semester	Second Semester	Total
General Fee	\$107.50	\$ 67.50	\$175.00
Non-Resident Fee	62.50	62.50	125.00
	\$170.00	\$130.00	\$300.00

*This fee is used for improving the University grounds, and the physical training facilities, and for other University projects that have direct relationship to student activities.
 ** The Student Activities Fee is included at the request of the Student Government Association. Its payment is not mandatory, but it is really a matter of economy to the student, since it covers subscription to the student weekly paper, the literary magazine, and the year book; class dues, including admission to class dances; and admission to the performances of the musical and dramatic clubs.

Special Fees

Matriculation Fee, payable on first entrance.....	\$ 5.00
Diploma Fee for bachelor's degree.....	10.00
Certificate Fee for Teacher's Diploma and other certificates where required each	5.00
Pre-Medical and Pre-Dental Fee—Per semester in addition to fees shown above:	

Maryland	\$25.00
District of Columbia.....	25.00
Other States and Countries.....	62.50

Expenses of Students Living in Dormitories

	First Semester	Second Semester	Total
Board	\$135.00	\$135.00	\$270.00
Lodging	38.00	38.00	76.00
	\$173.00	\$173.00	\$346.00

Laboratory Fees Per Semester Course

Bacteriology	\$2.00
General, Pathological Technic, Hematology, and Urinalysis	\$5.00
Pathogenic and Serology.....	\$8.00
All other courses.....	\$7.00
Botany	
Introductory	\$5.00
All other courses.....	\$3.00
Chemistry	
Introductory	\$3.00
Industrial, Inorganic, and Physical Chemistry.....	\$7.00
All other courses.....	\$8.00
Dairy	
Introductory Dairy Science and Dairy Mechanics.....	\$2.00
Dairy Manufacturing, Market Milk, Analysis of Dairy Products, Grading Dairy Products, and Advanced Grading Dairy Products	\$3.00
Experimental Psychology.....	\$2.00
Home Economics	
Elementary Foods, Demonstrations, Problems and Practice in Foods, Advanced Foods, Advanced Experimental Foods.....	\$6.00
Practice in Management of Home	\$3.50
Nutrition	\$3.00
Textiles and Clothing, Advanced Clothing, Problems and Practice in Textiles, Clothing or Related Art, Special Clothing Problems, Applied Art.....	\$2.00
Physics	
Elementary	\$3.00
General	\$5.00
Radio Speech	\$2.00
Zoology	
Elements of	\$3.00
All other courses.....	\$5.00

Miscellaneous Fees

Late Registration Fee.....	\$3.00-\$5.00
Fee for each change in registration after first week.....	\$1.00
Fee for failure to file schedule card in Registrar's Office during first week of semester.....	\$1.00

\$ 9.61 mm + ba. per wk
 38.44 " + " per mo.
 9 mo.

175
 5
 526

Absence Fee twenty-four hours before or after holiday.....	\$3.00
Condition Examination Fee.....	\$1.00
Special Examination Fee.....	\$5.00
Fee for failure to report for medical examination appointment.....	\$2.00
Part-time students carrying six semester hours or less—per semester credit hour	\$6.00
Laundry service, when desired—per semester.....	\$13.50
Transcript of Record Fee.....	\$1.00

Students will be charged for wilful damage to property. Where responsibility for the damage can be fixed, the individual student will be billed for it; where it cannot, the entire student body will be charged a flat fee to cover the loss or damage.

Fees For Graduate Students

Matriculation Fee	\$10.00
Fee for each semester credit hour.....	4.00
Diploma Fee—Master's Degree.....	10.00
Graduation Fee—Doctor's Degree.....	20.00

EXPLANATIONS

The Fixed Charges made to all students cover a part of the overhead expenses not provided for by the State.

The Board, Lodging, and Laundry charge may vary from semester to semester, but every effort will be made to keep expenses as low as possible.

Fees for Students Entering in February. Students entering the University for the second semester are charged the following fees for the items indicated: Athletic, \$7.50; Special, \$5.00; Student Activities, \$8.00; Infirmary, \$1.50, and Post Office Box, \$1.00.

Fees for Part-Time Students. Undergraduate students carrying six semester hours or less of regularly scheduled courses are charged \$6.00 per semester credit and regular laboratory fees. Students carrying seven or more semester hours are charged the regular fees. In the case of special courses with special fees this rule does not apply. A matriculation fee of \$5.00 is charged at the first registration.

The Athletic Fee constitutes a fund which is collected from all students in the University at College Park for the maintenance of athletics, and the entire amount is turned over to the Athletic Director for disbursement. This fund is audited annually by the State Auditors.

Late Registration Fee. Students who do not complete their registration and classification, including payment of bill, on regular registration days will be required to pay \$3.00 extra on the day following the last registration day, and \$5.00 thereafter. Students who fail to file course cards in the specified periods in May and January are considered late registrants.

Absence Fee. In cases of absence during a period beginning 24 hours before the close of classes for a vacation or holiday and ending 24 hours after the resumption of classes, a student will be penalized by being required to

pay a special fee of \$3.00 for each class missed. Unless properly excused, students will be penalized, as in the case of a holiday, for absence from the first meeting of each class at the beginning of the second semester.

Students desiring to be excused from classes before and after a holiday must make application to the Dean at least one week before such holiday. Except under the conditions specified, no excuse for an absence before or after a holiday will be granted.

In exceptional cases, such as sickness or death in the family, application for an excuse must be made within one week after a student returns.

WITHDRAWALS FROM THE UNIVERSITY

Students registering for the dormitories and dining hall must continue for the year, as contracts for faculty and other service and for supplies are made on an annual basis, and fees are fixed on the supposition that students will remain for the entire year.

A student desiring to withdraw from the University must secure the written consent of the parent or guardian, to be attached to the withdrawal slip, which must be approved by the Dean and presented to the Registrar at least one week in advance of withdrawal. Charges for full time will be continued against him unless this is done. The withdrawal slip must bear the approval of the President before being presented to the Cashier for refund.

REFUNDS

For withdrawal within five days full refund is made of fixed charges, athletic fee, special fee, and student activities fee, with a deduction of \$5.00 to cover cost of registration. All refunds for board, lodging, and laundry are pro-rated.

After five days, and until November 1, the first semester, or March 10, the second semester, refunds on all charges will be pro-rated, with a deduction of \$5.00 to cover cost of registration.

After November 1, or March 10, refunds are granted for board and laundry only, amounts to be pro-rated.

No refunds are made without the written consent of the student's parent or guardian, except to students who pay their own expenses.

No student is given cash for any part of his or her refund until all outstanding checks have been honored by the banks on which they are drawn.

DORMITORY RULES AND REGULATIONS

Room Reservations. All new students desiring to room in the dormitories should request room reservation cards. Men should apply to the Dormitory Manager; women should apply to the Dean of Women. When the room reservation card is returned, it must be accompanied by a \$5 deposit. This fee will be deducted from the first semester charges when the student registers; if he fails to claim the room, the fee will be forfeited. Reservations by students already at the University may be made at any time during the closing month of the school year.

Men's Dormitories. The office of the Dormitory Manager is located in "A" Section, Calvert Hall. After the student has been officially admitted

Keys
Equip.

and has paid his bill, he will be able to receive his room key and take possession of his room. Instructions regarding rules for the dormitories will be given to the student at this time.

Students are requested to obtain their room assignments before 7 P. M. on the day they enter.

Room reservations not claimed by freshmen or upperclassmen on their respective registration days will be canceled. A room will be held until after classes begin if the reservation is confirmed by September 15.

Cleaning ~~Maid~~ service is furnished without charge for all rooms.

All freshmen students, except those who live at home, are required to room in the dormitories and board at the University dining hall.

Women's Dormitories. All women students who have made dormitory reservations should report to the dormitory to which they have been assigned. Instructions regarding rules and regulations and any other information desired by the student will be given by the ~~house~~ ^{head resident} mother on duty.

Personal baggage sent via the American Express and marked for the dormitory to which it is to be sent will be delivered there direct. All baggage coming by railway will be deposited at the railway station in College Park, whence it can be secured for a small charge through arrangements made at the General Service Department of the University.

Since there is not sufficient dormitory space for freshmen women, those who cannot be accommodated in the dormitories may live in approved off-campus houses.

Keys. A deposit of \$1.00 is required for each key. Each student is required to have a key for his room in the dormitory.

Equipment. Men students assigned to dormitories should provide themselves each with sufficient single blankets, at least two pairs of single sheets, a pillow, pillow cases, towels, a laundry bag, and a waste paper basket.

Women students should each bring single sheets, blankets, spread, pillow, pillow cases, towels, bureau scarf, desk blotter, laundry bag, and waste paper basket.

All dormitory property assigned to the individual student will be charged against him, and he must assume responsibility for its possession without destruction other than that which may result from ordinary wear and tear.

DEFINITION OF RESIDENCE AND NON-RESIDENCE

Students who are minors are considered to be resident students, if at the time of their registration their parents* have been residents of this State† for at least one year.

Adult students are considered to be resident students, if at the time of their registration they have been residents of this State† for at least one

* The term "parents" includes persons who, by reason of death or other unusual circumstances, have been legally constituted the guardians of and stand in loco parentis to such minor students.

† Students in the College Park Colleges who are residents of the District of Columbia are charged two-fifths of the non-resident fee charged to other non-residents.

year; provided such residence has not been acquired while attending any school or college in Maryland.

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 this State†, by maintaining such residence for at least one full calendar year. However, the right of the student (minor) to change from a non-resident to a resident status must be established by him prior to registration for a semester in any academic year.

MISCELLANEOUS INFORMATION

In case of illness requiring a special nurse or special medical attention, the expense must be borne by the student.

Students not rooming in the dormitories may obtain board and laundry at the University at the same rates as those living in the dormitories.

Day students may get lunches at the University cafeteria or at nearby lunch rooms.

The cost of books and supplies will vary according to the course pursued by the individual student. Books and supplies average about \$35.00 per year.

No diploma will be conferred upon, nor any certificate granted to a student who has not made satisfactory settlement of his account.

EXPENSES AT BALTIMORE

The fees and expenses for the professional schools located in Baltimore will be found in the section of this catalogue pertaining to the several schools in Baltimore.

STUDENT EMPLOYMENT

A considerable number of students earn some money through employment while in attendance at the University. No student should expect, however, to earn enough to pay all his expenses. The amounts vary, but some earn from one-fourth to three-fourths of all the required funds.

Generally the first year is the hardest for those desiring employment. After one has demonstrated that one is worthy and capable, there is much less difficulty in finding work.

During the past two and a half years, through the National Youth Administration, the University has been enabled to offer needy students a limited amount of work on special projects, the remuneration for which averages about \$15 monthly. It is not known how long the Government will continue to extend this aid.

The University assumes no responsibility in connection with employment. It does, however, maintain a bureau to aid needy students. The nearby towns and the University are canvassed, and a list of available positions is placed at the disposal of the students.

*The term "parents" includes persons who, by reason of death or other unusual circumstances, have been legally constituted the guardians of and stand in loco parentis to such minor students.

†Students in the College Park Colleges who are residents of the District of Columbia are charged two-fifths of the non-resident fee charged to other non-residents.

HONORS AND AWARDS

SCHOLARSHIP HONORS AND AWARDS

Scholarship Honors. Final honors for excellence in scholarship are awarded to one-fifth of the graduating class in each college. *First honors* are awarded to the upper half of this group; *second honors* to the lower half. To be eligible for honors, at least two years of resident work are required.

The Goddard Medal. The James Douglas Goddard Memorial Medal is awarded annually to the man from Prince George's County who makes the highest average in his studies and who at the same time embodies the most manly attributes. The medal is given by Mrs. Anne K. Goddard James, of Washington, D. C.

Sigma Phi Sigma Medal. The Delta Chapter of Sigma Phi Sigma Fraternity offers annually a gold medal to the freshman who makes the highest scholastic average during the first semester.

Alpha Zeta Medal. The Honorary Agricultural Fraternity of Alpha Zeta awards annually a medal to the agricultural student in the freshman class who attains the highest average record in academic work. The mere presentation of the medal does not elect the student to the fraternity, but simply indicates recognition of high scholarship.

Dinah Berman Memorial Medal. The Dinah Berman Memorial Medal is awarded annually to the sophomore who has attained the highest scholastic average of his class in the College of Engineering. The medal is given by Benjamin Berman.

Mortar Board Cup. This is offered to the woman member of the senior class who has been in attendance at least three full years, and who has made the highest scholastic average.

Delta Delta Delta Medal. This sorority awards a medal annually to the girl who attains the highest average in academic work during the sophomore year.

Class of '26 Honor Key. The Class of 1926 of the School of Business Administration of the University of Maryland at Baltimore offers each year a gold key to the senior graduating from the College of Commerce with the highest average for the entire four year course taken at the University of Maryland.

American Institute of Chemists Medal. The American Institute of Chemists awards annually a medal and a junior membership to the graduating student, of good character and personality, majoring in chemistry, who shall have attained the highest average grade in this major subject for the entire undergraduate course, exclusive of credit received for the final semester.

MILITARY AWARDS

The Governor's Cup. This is offered each year by His Excellency, the Governor of Maryland, to the best drilled company.

Military Faculty Award. The Military faculty of the University annually presents an award to the student who has done most for the Reserve Officers' Training Corps.

Class of '99 Gold Medal. The Class of 1899 offers each year a gold medal to the member of the battalion who proves himself the best drilled soldier.

Company Saber. The Military Department awards annually to the captain of the best drilled company of the University a silver mounted saber.

The Alumni Cup. The Alumni offer each year a cup to the commanding officer of the best drilled platoon.

Scabbard and Blade Saber. This saber is offered for the commander of the winning platoon.

Scabbard and Blade Medals. These medals are offered for the freshman students who remain longest in the individual competition, one per battalion.

Gold Medals. These are offered by the Military Department to the two students who contribute the most to the success of the band. Gold Medals are offered also to the members of the best drilled squad. Gold Medals are likewise presented by the Department to the respective battalion commanders.

A Silver Medal is presented by the Military Department to the student who makes the highest score in the Third Corps Area Match.

A Bronze Medal is similarly awarded to the student making the second highest score in the Third Corps Area Match.

A Gold Medal is awarded to the member of the Varsity R. O. T. C. Rifle Team who fired the high score of each season.

A Gold Medal is awarded to the member of the Freshman Rifle Team who fired the high score of each season.

LOANS

The Kappa Kappa Gamma Sorority offers annually a Sigma Delta loan of one hundred dollars, without interest, to a woman student registered in the University of Maryland and selected by the Scholarship Committee—the said Committee to be composed of the deans of all Colleges in which girls are registered, including the Dean of Women and the Dean of the Graduate School.

CAW

PUBLICATIONS AWARDS

Medals are offered in Diamondback, Terrapin, and Old Line work, for the students who have given most efficient and faithful service throughout the year.

ATHLETIC AWARDS

Silvester Watch for Excellence in Athletics. The Class of 1908 offers annually to "the man who typified the best in college athletics" a gold watch. The watch is given in honor of a former President of the University, R. W. Silvester.

Maryland Ring. The Maryland Ring is offered by Charles L. Linhardt to the Maryland man who is adjudged the best athlete of the year.

CITIZENSHIP AWARDS

Citizenship Prize for Men. A gold watch is presented annually by H. C. Byrd, a graduate of the Class of 1908, to the member of the senior class who, during his collegiate career, has most nearly typified the model citizen, and has done most for the general advancement of the interests of the University.

Citizenship Prize for Women. The Citizenship Prize is offered by Mrs. Albert F. Woods to the woman member of the senior class who, during her collegiate career, has most nearly typified the model citizen, and has done most for the general advancement of the interests of the University.

STUDENT ACTIVITIES

The following description of student activities covers those of the undergraduate divisions of College Park. The description of those in the Baltimore divisions is included in the appropriate chapters in Section II.

GOVERNMENT

Regulation of Student Activities. The association of students in organized bodies, for the purpose of carrying on voluntary student activities in orderly and productive ways, is recognized and encouraged. All organized student activities are under the supervision of the Student Life Committee, subject to the approval of the President. Such organizations are formed only with the consent of the Student Life Committee and the approval of the President. Without such consent and approval no student organization which in any way represents the University before the public, or which purports to be a University organization or an organization of University students, may use the name of the University in connection with its own name, or in connection with its members as students.

Student Government. The Student Government Association consists of the Executive Council, the Women's League, and the Men's League, and operates under its own constitution. Its officers are a President, a Vice-President, a Secretary-Treasurer, President of Women's League and President of Men's League.

The Women's League handles all affairs concerning women students exclusively. It has the advisory cooperation of the Dean of Women.

The Men's League handles all matters pertaining to men students. It has the advisory cooperation of the Assistant in Student Activities.

The Executive Council performs the executive duties incident to managing student affairs, and works in cooperation with the Student Life Committee.

The Student Life Committee, a faculty committee appointed by the President, keeps in close touch with all activities and conditions, excepting classroom work, that affect the student, and, acting in an advisory capacity, endeavors to improve any unsatisfactory conditions that may exist.

A pamphlet entitled *Academic Regulations*, issued annually and distributed to the students in the fall, contains full information concerning student matters as well as a statement of the rules of the University.

Eligibility to Represent the University. Only students in good standing are eligible to represent the University in extra-curricular contests. No student while on probation may represent the University in such events as athletic contests, glee club concerts, dramatic performances, and debates.

Discipline. In the government of the University, the President and faculty rely chiefly upon the sense of responsibility of the students. The student who pursues his studies diligently, attends classes regularly, lives honorably, and maintains good behavior meets this responsibility. In the interest of the general welfare of the University, those who fail to maintain these standards are asked to withdraw. Students are under the direct supervision of the University only when on the campus, but they are responsible to the University for their conduct wherever they may be.

Fraternities and sororities, as well as all other clubs and organizations recognized by the University, are expected to conduct their social and financial activities in accordance with the rules of good conduct and upon sound business principles. Where such rules and principles are observed, individual members will profit by the experience of the whole group, and thereby become better fitted for their life's work after graduation. Rules governing the different activities will be found in the list of Academic Regulations.

SOCIETIES

Honorary Fraternities. Honorary fraternities and societies in the University at College Park are organized to uphold scholastic and cultural standards in their respective fields. These are Phi Kappa Phi, a national honorary fraternity open to honor students, both men and women, in all branches of learning; Sigma Xi, an honorary scientific fraternity; Alpha Zeta, a national honorary agricultural fraternity recognizing scholarship and student leadership; Tau Beta Pi, a national honorary engineering fraternity; Omicron Delta Kappa, men's national honor society, recognizing conspicuous attainment in non-curricular activities and general leadership; Kappa Phi Kappa, a national educational fraternity; Beta Phi Theta, an honorary French fraternity; Sigma Delta Pi, a national honorary Spanish fraternity; Alpha Chi Sigma, a national honorary chemical fraternity; Scabbard and Blade, a national military society; Pershing Rifles, a national military society for basic course R. O. T. C. students; Pi Delta Epsilon, a national journalistic fraternity; Mortar Board, the national senior honor society for women;

*see Service, leadership
+ scholarship.*

scholastic

Alpha Lambda Delta, a national freshman women's honor society promoting scholarship; Omicron Nu, a national Home Economics society; Alpha Psi Omega (Iota Chapter), national dramatic society; and Chi Alpha, local women's journalistic fraternity.

Fraternities and Sororities. There are fourteen national fraternities, and six national sororities and one local sorority at College Park. These in the order of their establishment at the University are Kappa Alpha, Sigma Phi Sigma, Sigma Nu, Phi Sigma Kappa, Delta Sigma Phi, Alpha Gamma Rho, Theta Chi, Phi Alpha, Tau Epsilon Phi, Alpha Tau Omega, Phi Delta Theta, Lambda Chi Alpha, Alpha Lambda Tau, and Sigma Alpha Mu (national fraternities); and Alpha Omicron Pi, Kappa Delta, Kappa Kappa Gamma, Delta Delta Delta, Alpha Xi Delta, and Phi Sigma Sigma (national sororities); and Alpha Sigma (local sorority).

Clubs and Societies. Many clubs and societies, with literary, scientific, social, and other special objectives are maintained in the University. Some of these are purely student organizations; others are conducted jointly by students and members of the faculty. The list is as follows: Agricultural Council, Authorship Club, Bacteriological Society, Engineering Society, Entomological Society, Horticulture Club, Latin American Club, Live Stock Club, New Mercer Literary Society, Poe Literary Society, Calvert Forum, Women's Athletic Association, Girls' "M" Club, Footlight Club, Debating Club, Rossbourg Club, Mathematics Society, ~~Economics Club~~, Chess Club, Strauss Club, DeMolay Club, Psyche Club, Der Deutsche Verein, Riding Club, Swimming Club, Opera Club, Poetry Club, International Relations, American Institute of Electrical Engineers, American Society of Civil Engineers, Radio Club, Camera Club, Alpha Club, Kappa Alpha Sigma Club, and Trail Club.

Student Grange. The Student Grange is a chapter of the National Grange. With the exception of two faculty advisers, the Student Grange membership is made up entirely from the student body. New members are elected by ballot when they have proved their fitness for the organization.

The general purposes of the Student Grange are to furnish a means through which students keep in touch with state and national problems of agricultural, economic, or general educational nature; to gain experience in putting into practice parliamentary rules; to learn the meaning of leadership, and to learn how to assume leadership that aids in the ultimate task of serving in one's community.

RELIGIOUS INFLUENCES

Staff. The University recognizes its responsibility for the welfare of the students not solely in their intellectual growth, but as human personalities whose development along all lines, including the moral and religious, is included in the educational process. Pastors representing the major denominational bodies are officially appointed by the Churches for work with the students of their respective faiths. Each of the Student Pastors also serves a local church of his denomination, which the students are urged to attend.

Committee on Religious Affairs and Social Service. A faculty committee on Religious Affairs and Social Service has as its principal function the stimulation of religious thought and activity on the campus. It brings noted speakers on religious subjects to the campus from time to time. The committee coöperates with the student pastors in visiting the students, and assists the student denominational clubs in every way that it can. Opportunities are provided for students to consult with pastors representing the denominations of their choice.

While there is no attempt to interfere with anyone's religious beliefs, the importance of religion is recognized officially and religious activities are encouraged.

Denominational Clubs. Several religious clubs, each representing a denominational group, have been organized among the students for their mutual benefit and to undertake certain types of Christian service. This year the list includes the Baptist Club, the Episcopal Club, the Lutheran Club, the Newman Club, and the Presbyterian Club. These clubs meet monthly or semi-monthly for worship and discussion, and occasionally for social purposes. A pastor or a member of the faculty serves as adviser. A local Y. W. C. A. provides a variety of activities and services on an undenominational basis.

STUDENT PUBLICATIONS

Three student publications are conducted under the supervision of the Faculty Committee on Student Publications.

The Diamondback, a semi-weekly, six-to-eight-page newspaper, is published by the students. This publication summarizes the University news, and provides a medium for discussion of matters of interest to the students and the faculty.

The Terrapin is the student annual published by the Junior Class. It is a reflection of student activities, serving to commemorate the principal events of the college year.

The Old Line is a comic magazine put out quarterly by the students.

ALUMNI

The alumni are organized into several units, which elect representatives to the Alumni Council, an incorporated body which manages all general alumni affairs. Different alumni units represent the School of Medicine, the School of Pharmacy, the School of Dentistry, the School of Law, and the School of Nursing, while the group of colleges at College Park are represented by one unit. The College Park unit is governed by a board made up of representatives of the various colleges located at College Park.

The Alumni Council consists of elected representatives from the several units, with a membership of twenty-four. Each alumni unit in Baltimore elects two representatives to the Council; the alumni representing the College Park group of colleges elect twelve representatives.

SECTION II

Administrative Divisions

COLLEGE OF AGRICULTURE

T. B. SYMONS, *Acting Dean and Director of Extension.*
J. E. METZGER, *Acting Director, Experiment Station.*
H. F. COTTERMAN, *Assistant Dean.*

The Agricultural College is the administrative unit of the University devoted especially to the agricultural industries and life of the State. Its four principal functions are as follows: (1) Resident Instruction, the training of young men and women for agricultural and related occupations; (2) Research, the conducting of systematic investigations on projects of importance to agricultural interests; (3) Extension, the rendering of assistance in the solution of farm and home problems in their natural setting; and (4) Regulatory, the enforcement of those standards and control measures in agriculture which are deemed necessary for the common good.

Resident Instruction

The courses in resident instruction are designed to provide trained personnel for agricultural and allied industries. These offerings aim to fit students for one or more of the many fields of activity affording employment to persons with special kinds of training. Education of students in fundamentals receives special attention. The fourteen professional curricula of the College are arranged with a view to correlating technical work with associated sciences and cultural subjects. Accordingly, young men and women are given a basic general education while they are being instructed in the various branches of agriculture.

The College provides education for those who wish to engage in general farming, live stock production, some type of dairying, poultry husbandry, fruit or vegetable growing, floriculture or ornamental horticulture, field crop production, or in the highly specialized activities connected with these industries. It prepares men to serve as farm managers, for responsible positions as teachers in agricultural colleges or in departments of vocational agriculture in high schools, or as investigators in experiment stations, for extension work, for regulatory activities, for service in the United States Department of Agriculture, and for positions with commercial concerns related to agriculture. Its curricula in Bacteriology, Botany, Entomology, Genetics and Statistics, and Soil Technology offer rich opportunities to the student with a scientific bent of mind, and lead to positions with many ramifications in teaching, research, extension, and regulatory work.

Research

Through research of the Experiment Station, the frontiers of knowledge relating to agriculture and the fundamental sciences underlying it are constantly being extended and solutions for important problems are being found. Research projects in many fields are in progress. Students taking courses in agriculture from instructors who devote part time to research or are closely associated with it are kept in close touch with the latest discoveries and developments in the investigations under way. The findings of the Experiment Station thus provide a real source of information for use in classrooms, and make possible a virility and exactness in instruction valuable in the extreme. The authority of scientific investigation is constantly before the student.

Extension

Constant contact of the Extension Service with the problems of farmers and their families in all parts of the State through its county agents, home demonstration agents, and specialists brings additional life to resident instruction in the College of Agriculture. This Service operates in two ways: Problems confronting rural people are brought to the attention of research workers and the instructional staff, and results of research are taken to farmers and their families in their home communities through practical demonstrations. Hence the problems of the people of the State contribute to the strength of the College of Agriculture, and the College helps them in the improvement of agriculture and rural life. Instruction is vitalized through participation in or association with extension activities.

Regulatory

Through their Regulatory functions, certain trained workers in the College of Agriculture are constantly dealing with the actual problems associated with the improvement and maintenance of the standards of farm products and animals. Regulatory and control work extends over a wide range of activities and is concerned with reducing the losses due to insect pests and diseases; preventing and controlling serious outbreaks of diseases and pests of animals and plants; analyzing fertilizers, feed, and limes for guaranteed quality; and providing more reliable seeds for farm planting. These fields constitute an important part of agricultural education, as standardization and education go hand in hand in the development of an industry. Direct contact on the part of professors in their respective departments with the problems and methods involved makes for effective instruction.

Coordination of Agricultural Work

The strength of the College of Agriculture of the University of Maryland lies in the close coordination of the instructional, research, extension, and regulatory functions within the individual departments, between the several departments, and in the institution as a whole. Those who give instruction to students are closely associated with the research, extension,

and regulatory work being carried on in their respective lines, and, in many cases, devote a portion of their time to one or more of these types of activities. Close coordination of these four types of work enables the University to support a stronger faculty in the College of Agriculture, and affords a higher degree of specialization than would otherwise be possible. It insures instructors an opportunity to be always informed on the latest results of research, and to be constantly in touch with current trends and problems that are revealed in extension and regulatory activities. Heads of departments hold staff conferences to this end, so that the student at all times is as close to the developments in the frontiers of the several fields of knowledge as it is possible for organization to put him.

Advisory Councils

In order that the work of the College shall be responsive to agricultural interests and shall adequately meet the needs of the several agricultural industries in the State, and that the courses of instruction shall at all times be made most helpful for students who pursue them, Advisory Councils have been constituted in the major industries of agriculture. These Councils are composed of leaders in the respective lines of agriculture in Maryland, and the instructional staff of the College of Agriculture has the benefit of their counsel and advice at regular intervals. By this means the College, the industries, and the students are kept abreast of developments.

Facilities and Equipment

In addition to the buildings, laboratories, libraries, and equipment for effective instruction in the related basic sciences and in the cultural subjects, the University of Maryland is provided with excellent facilities for research and instruction in agriculture. Farm lands, totaling more than 1200 acres, are owned and operated for instructional and investigational purposes. One of the most complete and modern plants for dairy and animal husbandry work in the country, together with herds of the principal breeds of dairy cattle and livestock, provide facilities and materials for instruction and research in these industries. Excellent laboratory and field facilities are available in the Agronomy Department for breeding and selection in farm crops and for soils research. The Poultry Department has a building for laboratories and classrooms, a plant comprising thirty-four acres, and flocks of all the important breeds of poultry. The Horticulture Department is housed in a separate building, and has ample orchards and gardens for its various lines of work.

Departments

The College of Agriculture includes the following departments: Agricultural Economics and Farm Management; Agricultural Education and Rural Life; Agricultural Engineering; Agronomy (including Crops and Soils); Animal and Dairy Husbandry; Bacteriology; Botany (including Plant Pathology, Plant Physiology, and Bio-chemistry); Entomology (including Bee Culture); Genetics and Statistics; Horticulture (including Pomology,

Vegetable Gardening, Landscape Gardening, and Floriculture); Poultry Husbandry; Veterinary Science.

Admission

The requirements for admission are discussed under Entrance, in Section I.

Requirements for Graduation

One hundred and twenty-eight semester hours are required for graduation. The detailed requirements for each department are included in the discussion of Curricula in Agriculture.

Farm and Laboratory Practice

The head of each department will help to make available opportunities for practical or technical experience along his major line of study for each student whose major is in that department and who is in need of such experience. For inexperienced students in many departments this need may be met by one or more summers spent on a farm.

Student Organizations

Students find opportunity for varied expression and growth in the several voluntary organizations sponsored by the College. These organizations are as follows: Student Grange, Livestock Club, Future Farmers of America, Bacteriological Society, Alpha Zeta, Agricultural Economics Club, and the Agricultural Student Council.

Membership in these organizations is voluntary, and no college credits are given for work done in them; yet much of the training obtained is fully as valuable as that acquired from regularly prescribed courses.

The Student Grange represents the Great National Farmers' fraternity of the Order of Patrons of Husbandry, and emphasizes training for rural leadership. It sponsors much deputation work in local granges throughout the State. The Livestock Club conducts the Students' Fitting and Showing Contest held on the campus in the Spring. The Future Farmers of America foster interest in vocational education, and the Collegiate Chapter serves as host Chapter in connection with high school judging contests held at the University. The Bacteriological organization is representative of a national group with chapters in many institutions. The Agricultural Economics group conducts special studies in the field of Agricultural Economics. All these organizations have regular meetings, arrange special programs, and contribute to the extra-curricular life of students.

Alpha Zeta—National Agricultural Honor Fraternity

Membership in this fraternity is chosen from students in the College of Agriculture who have displayed agricultural motive and executive ability. This organization fosters scholarship, and to that end awards a gold medal to the member of the freshman class in agriculture who makes the highest record during the year.

Agricultural Student Council

The Agricultural Student Council is a delegate body made up of two representatives from each of the above organizations. Its purpose is to coordinate activities of students in agriculture, and to promote work which is beneficial to the College of Agriculture. It is the organization that is representative of the agricultural student body as a whole.

CURRICULA IN AGRICULTURE

Curricula within the College of Agriculture divide into three general classes: Technical, Scientific, and Special.

(1) Technical curricula are designed to prepare students for farming as owners, tenants, managers, or specialists; for positions as county agricultural agents, or teachers of agriculture in high schools; as executives, salesmen, or other employees in commercial businesses with close agricultural contact and point of view.

(2) Scientific curricula are designed to prepare students for positions as technicians, teachers, or investigators. These positions are usually in the various scientific and educational departments, or bureaus of the Federal, State, or Municipal governments; in the various schools or experiment stations; or in the laboratories of private corporations.

(3) Courses of study may be arranged for any who desire to return to the farm after one or more years of training in practical agricultural subjects. (For details see Special Students in Agriculture, page 92.)

Student Advisers

Each student in the College of Agriculture is assigned to an adviser from the faculty. Advisers are of two kinds—departmental and general. Departmental advisers consist of heads of departments or persons selected by them to advise students with curricula in their respective departments. General advisers are selected for students who have no definite choice of curriculum in mind, or who wish to pursue the general curriculum in agriculture.

The electives in the suggested curricula which follow afford opportunity for those who so desire to supplement major and minor fields of study or to add to their general training.

With the advice and consent of those in charge of his registration, a student may make such modifications in his curriculum as are deemed advisable to meet the requirements of his particular need.

Cases of students with poor records are referred to the Admission, Guidance, and Adjustment Committee, for review and advice.

Freshman Year

The program of the freshman year in the College of Agriculture is common to all curricula of the College. Its purpose is to afford the student

an opportunity to lay a broad foundation in subjects basic to agriculture and the related sciences, to articulate beginning work in college with that pursued in high or preparatory schools, to provide opportunity for wise choice of programs in succeeding years, and to make it possible for a student before the end of the year to change from one curriculum to another, or from the College of Agriculture to the curriculum in some other college of the University with little or no loss of credit.

Students entering the freshman year with a definite choice of curriculum in mind are sent immediately to departmental advisers for counsel as to the wisest selection of freshman electives from the standpoint of their special interests and their probable future programs. Students entering the freshman year with no definite curriculum in mind, or who are undecided, are assigned to general advisers, who assist with the choice of freshman electives and during the course of the year acquaint them with the opportunities in the upper curricula in the College of Agriculture and in the other divisions of the University. If by the close of the freshman year a student makes no definite choice of a specialized curriculum, he continues under the guidance of his general adviser and at the beginning of the sophomore year enters Agriculture (General Curriculum).

Requirements of Freshman Year

	Semester	
	I	II
General Chemistry (Chem. 1y).....	4	4
Survey and Composition I (Eng. 1y).....	3	3
General Botany (Bot. 1f).....	4	—
General Zoology (Zool. 1s).....	—	4
Reading and Speaking (Speech 1y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or Phys. Ed. 2y and 4y).....	1	1
Elect one of the following:		
Modern Language (French 1y or German 1y).....	3	3
Mathematics (Math. 21f and 22s).....	4	4
Elementary Physics (Phys. 3y).....	3	3
Agricultural Industry and Resources (A. E. 1f) and Farm Organization (A. E. 2s).....	3	3

AGRICULTURE

(General Curriculum)

Students who desire to pursue a general course in Agriculture should enter the following curriculum. It is designed for those seeking a general, rather than a specialized, knowledge of the subject.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Sophomore Year</i>		
Survey and Composition (Eng. 2f and 3s).....	3	3
Geology (Geol. 1f).....	3	—
Soils and Fertilizers (Soils 1s).....	—	3
Cereal Crop and Forage Crop Production (Agron. 1f and 2s)....	3	3
General Animal Husbandry (A. H. 1f and 2s).....	2	2
Fundamentals of Dairying (D. H. 1f).....	3	—
Fundamentals of Economics (Econ. 57s).....	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	16	16
<i>Junior Year</i>		
Dairy Production (D. H. 101f and 102s).....	3	3
Farm Machinery (Agr. Engr. 101f).....	3	—
Gas Engines, Tractors, and Automobiles (Agr. Engr. 102s)....	—	3
Agricultural Economics (A. E. 100f).....	3	—
Marketing of Farm Products (A. E. 102s).....	—	3
General Horticulture (Hort. 1f and 2s).....	3	3
Poultry Production (Poultry 1f).....	3	—
Poultry Management (Poultry 1s).....	—	3
Advanced Public Speaking (Speech 3f and 4s).....	2	2
	—	—
	17	17
<i>Senior Year</i>		
Farm Management (A. E. 108f).....	3	—
Analysis of Farm Business (A. E. 107s).....	—	3
Feeds and Feeding (A. H. 102f).....	3	—
Principles of Breeding (A. H. 103s).....	—	3
Electives	10	10
	—	—
	16	16

AGRICULTURAL EDUCATION AND RURAL LIFE

The objectives of the curricula in Agricultural Education are the teaching of secondary vocational agriculture, the work of county agents, and allied lines of the rural education service.

Curriculum A is designed for persons who have had no vocational agriculture in high school or less than two years of such instruction. Curriculum B is designed for persons who have had two or more years of thoroughgoing instruction in secondary agriculture of the type offered in Maryland high schools. Curriculum B relieves the student of the necessity of pursuing beginning agriculture courses in the first two years of his college course, permits him to carry general courses in lieu of those displaced by his vocational program in high school, and offers him an opportunity to lay a broad foundation for the advanced work in agriculture of the last two college years.

In addition to the regular entrance requirements of the University, involving graduation from a standard four-year high school, students electing the agricultural education curricula must present evidence of having acquired adequate farm experience after reaching the age of fourteen years.

Students with high averages upon petition may be relieved of certain requirements in these curricula, when evidence is presented showing that either through experience or through previous training the prescription is non-essential; or they may be allowed to carry an additional load.

Curriculum A.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Sophomore Year</i>		
Diseases of Plants (Plt. Path. 1f).....	3	—
Introductory Entomology (Ent. 1s).....	—	3
Cereal Crop and Forage Crop Production (Agron. 1f and 2s)...	3	3
Geology (Geol. 1f).....	3	—
Soils and Fertilizers (Soils 1s).....	—	3
Fundamentals of Dairying (D. H. 1f and 2s).....	3	3
General Horticulture (Hort. 1f).....	3	—
Fundamentals of Economics (Econ. 57s).....	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	17	17

	Semester	
	I	II
<i>Junior Year</i>		
Farm Machinery (Agr. Engr. 101f).....	3	—
Gas Engines, Tractors, and Automobiles (Agr. Engr. 102s).....	—	3
Agricultural Economics (A. E. 100f).....	3	—
Marketing of Farm Products (A. E. 102s).....	—	3
Poultry Production (Poultry 1f).....	3	—
Poultry Management (Poultry 1s).....	—	3
General Animal Husbandry (A. H. 2s).....	—	2
General Horticulture (Hort. 2s).....	—	3
Mechanical Drawing (Dr. 6y).....	1	—
Advanced Public Speaking (Speech 3f and 4s).....	2	2
Educational Psychology (Psych. 10f).....	3	—
	—	—
	15	16

	Semester	
	I	II
<i>Senior Year</i>		
Farm Management (A. E. 108f).....	3	—
Feeds and Feeding (A. H. 102f).....	3	—
Farm Practicums and Demonstrations (R. Ed. 101f and 102s).....	1	1
Observation and the Analysis of Teaching for Agricultural Students (R. Ed. 107f).....	3	—
Principles of Secondary Education (Ed. 103s).....	—	3
Teaching Secondary Vocational Agriculture (R. Ed. 109f).....	3	—
Rural Life and Education (R. Ed. 110s).....	—	3
Departmental Organization and Administration (R. Ed. 112s).....	—	1
Farm Shop Work (Agr. Engr. 104f).....	1	—
Teaching Farm Shop in Secondary Schools (R. Ed. 114s).....	—	1
Practice Teaching (R. Ed. 120 f or s).....	—	2
Electives	3	3
	—	—
	17	14

Curriculum B.

	Semester	
	I	II
<i>Sophomore Year</i>		
Diseases of Plants (Plt. Path. 1f).....	3	—
General Entomology (Ent. 1s).....	—	3
Geology (Geol. 1f).....	3	—
Soils and Fertilizers (Soils 1s).....	—	3
General Horticulture (Hort. 1f and 2s).....	3	3
Fundamentals of Dairying (D. H. 1f).....	3	—
Fundamentals of Economics (Econ. 57s).....	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
*Electives	3	3
	—	—
	17	17

	Semester	
	I	II
<i>Junior Year</i>		
Farm Machinery (Agr. Engr. 101f).....	3	—
Gas Engines, Tractors, and Automobiles (Agr. Engr. 102s).....	—	3
Mechanical Drawing (Dr. 6y).....	1	—
Advanced Public Speaking (Speech 3f and 4s).....	2	2
Educational Psychology (Psych. 10f).....	3	—
Electives	8	12
	—	—
	17	17

	Semester	
	I	II
<i>Senior Year</i>		
Farm Management (A. E. 108f).....	3	—
Farm Practicums and Demonstrations (R. Ed. 101f and 102s).....	1	1
Observation and the Analysis of Teaching for Agricultural Students (R. Ed. 107f).....	3	—
Principles of Secondary Education (Ed. 103s).....	—	3
Teaching Secondary Vocational Agriculture (R. Ed. 109f).....	3	—
Rural Life and Education (R. Ed. 110s).....	—	3
Departmental Organization and Administration (R. Ed. 112s).....	—	1
Farm Shop Work (Agr. Engr. 104f).....	1	—
Teaching Farm Shop in Secondary Schools (R. Ed. 114s).....	—	1
Practice Teaching (R. Ed. 120f or s).....	—	2
Electives	3	3
	—	—
	14	14

Electives in Curriculum B to be as follows:

Advanced Animal and Dairy Husbandry.....	6 hours
Advanced Agricultural Economics, Farm Management.....	6 hours
Advanced Agronomy	6 hours
Advanced Poultry	6 hours
Subjects of Special Interest.....	8 hours

*If Elementary Physics (Phys. 3y) is not elected in the freshman year, it must be elected in the sophomore year.

AGRICULTURAL ENGINEERING

The department of Agricultural Engineering offers to students of agriculture training in those agricultural subjects which are based upon engineering principles. These subjects may be grouped under three heads: farm machinery, farm buildings, and farm drainage.

The modern tendency in farming is to reduce production costs by the use of farm machinery units of efficient size and design. In many cases horses are being replaced by tractors. Trucks, automobiles, and stationary engines are found on almost all farms. It is highly advisable that the student of any branch of agriculture have a working knowledge of the design, adjustments, and repair of these machines.

More than one-fourth of the total value of Maryland farms is represented by the buildings. The study of the design of various buildings, from the standpoint of economy, sanitation, efficiency, and appearance, is, therefore, important.

Studies included in the study of drainage are as follows: the principles of tile drainage, the laying out and construction of tile drain systems, the use of open ditches, and Maryland drainage laws.

AGRONOMY

In the Department of Agronomy are grouped the courses in farm crops, soils, and plant breeding.

The curriculum in farm crops aims to give the student the fundamental principles of crop production. Special attempt is made to adapt the work to the young man who wishes to apply scientific principles of field crop culture and improvement on the farm. At the same time enough freedom is given the student in the way of electives so that he may register for subjects which might go along with the growing of crops on his particular farm. A student graduating from the course in agronomy should be well fitted for general farming, for the production of improved seeds, for employment with commercial firms, for investigational work in the State or Federal Experiment Stations, or for county agent work.

The division of soils gives instruction in the physics, chemistry, and biology of the soil, the courses being designed to equip the future farmer with a complete knowledge of his soil and also to give adequate training to students who desire to specialize in soils. Those who are preparing to take up research or teaching are expected to take graduate work in addition to the regular undergraduate courses that are offered. The division possesses the necessary equipment and facilities for the instruction in these subjects, and in addition affords opportunities for the student to come in contact with the research at the Agricultural Experiment Station, especially in the pot culture laboratories, and on the experimental fields at the station and in other parts of the State.

Graduate students will find unusual opportunities to fit themselves to teach soils in agricultural colleges, to conduct research in experiment stations, and to carry on work with the Bureau of Plant Industry and the Bureau of Chemistry and Soils, United States Department of Agriculture.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Sophomore Year</i>		
Cereal and Forage Crops (Agron. 1f and 2s).....	3	3
Geology (Geol. 1f).....	3	—
Soils and Fertilizers (Soils 1s).....	—	3-5
Elements of Organic Chemistry (Chem. 12Ay).....	4	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Select from following:		
Calculus (Math. 23y).....	2	2
General Physics (Phys. 1y).....	4	4
Diseases of Plants (Plt. Path. 1f).....	4	—
Agriculture (Any course under 100).....	3	3
	—	—
	14-16	14-16

Crops Division

<i>Junior Year</i>		
Genetics (G. and S. 101f).....	3	—
Technology of Crop Quality (Agron. 102f).....	2 or 3	—
General Bacteriology (Bact. 1f).....	4	—
Expository Writing (Eng. 5f and 6s).....	2	2
Plant Physiology (Plt. Phys. 101f).....	4	—
Fundamentals of Economics (Econ. 57f).....	—	3
Electives	1	11
	—	—
	16	16
 <i>Senior Year</i>		
Crop Breeding (Agron. 103f).....	2	—
Advanced Genetics (G. and S. 102 s).....	—	2
Agricultural Economics (A. E. 100f).....	3	—
Methods of Crop and Soil Investigations (Agron. 121 s).....	—	2
Selected Crop Studies (Agron. 104f and s).....	1	4
Soil Geography (Soils 103f).....	3	—
Farm Machinery (Agr. Engr. 101f).....	3	—
Farm Drainage (Agr. Engr. 107 s).....	—	2
Farm Forestry (For. 1 s).....	—	3
Farm Management (A. E. 108f).....	3	—
Electives	1	3
	—	—
	16	16

Soils Division

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Junior Year</i>		
Expository Writing (Eng. 5f and 6 s).....	2	2
Fundamentals of Economics (Econ. 57s).....	—	3
General Bacteriology (Bact. 1f).....	4	—
Soils and Fertilizers (Soils 1f).....	5	—
Soil Management (Soils 102 s).....	—	3
Plant Physiology (Plt. Phys. 101f).....	4	—
Electives	1	8
	—	—
	16	16
<i>Senior Year</i>		
Agricultural Economics (A. E. 2f).....	3	—
Farm Management (A. E. 108f).....	4	—
Methods of Crop and Soil Investigations (Agron. 121 s).....	—	2
Soil Geography (Soils 103f).....	3	—
Farm Drainage (Agr. Engr. 107s).....	—	2
Soil Conservation (Soils 120 s).....	—	3
Electives	6	9
	—	—
	16	16

ANIMAL AND DAIRY HUSBANDRY

Animal Husbandry

New horse, sheep, and beef cattle barns, judging pavilion, and classroom have been constructed on a site adjacent to the University Campus. These enlarged facilities, together with the availability for use of better herds and flocks, have added materially to the equipment available for instruction and for research in all branches of animal husbandry.

The curriculum in Animal Husbandry is so organized as to permit of specialization and at the same time allow plenty of latitude in the election of courses outside of the department, thereby giving students fundamental training and equipping them to become owners, managers, or superintendents of farms where livestock are maintained. Attention is given to all phases of the livestock industry, including care, feeding, breeding, selection, and management of all classes of farm livestock; to the marketing of livestock and livestock products; and to other allied subjects, training in all of which is fundamental for those who intend to produce, buy, sell, or market livestock or livestock products.

Opportunity for specialization is open to those who expect to pursue graduate studies or who anticipate becoming instructors, investigators, county agricultural agents, or specialists in State or Federal institutions.

Sophomore Year

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Elements of Organic Chemistry (Chem. 12Ay and 12By).....	3	3
General Animal Husbandry (A. H. 1f and 2s).....	2	2
General Bacteriology (Bact. 1f).....	4	—
Fundamentals of Economics (Econ. 57s).....	—	3
Geology (Geol. 1f).....	3	—
Cereal Crop Production (Agron. 1f).....	3	—
Forage Crop Production (Agron. 2s).....	—	3
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Electives	—	3
	—	—
	17	16
<i>Junior Year</i>		
Breeds of Horses and Beef Cattle (A. H. 100f).....	2	—
Breeds of Sheep and Swine (A. H. 101s).....	—	2
Feeds and Feeding (A. H. 102f).....	3	—
Principles of Breeding (A. H. 103s).....	—	3
Genetics (G. and S. 101f).....	3	—
Livestock Management (A. H. 104f).....	2	—
Livestock Management (A. H. 105s).....	—	2
Livestock Judging (A. H. 106f).....	2	—
Livestock Judging (A. H. 107s).....	—	2
Electives	4	7
	—	—
	16	16
<i>Senior Year</i>		
Beef Cattle and Horse Production (A. H. 109f).....	3	—
Sheep and Swine Production (A. H. 110s).....	—	3
Livestock Markets and Marketing (A. H. 111f).....	2	—
Animal Nutrition (A. H. 113f).....	3	—
Advanced Breeding (A. H. 114s).....	—	2
General Physiological Chemistry (Chem. 108s).....	—	4
Farm Machinery (Agr. Engr. 101f).....	3	—
Electives	5	7
	—	—
	16	16

Dairy Husbandry

The new group of dairy barns recently completed at the University are modern in construction, up-to-date in equipment, and readily accessible. The dairy herd is being increased in size and improved in quality. New and modern equipment is being placed in the dairy manufacturing plant. All of these greatly expanded physical facilities make possible a high order of instruction and research in all phases of the dairy industry.

The department of Dairy Husbandry offers courses in two major lines: dairy production and dairy manufacture. The curriculum in each of these phases is arranged to give the student an intimate knowledge of the science, and facility in the art of dairy husbandry practice. The dairy production option is organized to meet the specific requirements of students who are especially interested in the care, feeding, breeding, management, and improvement of dairy cattle and in the production and sale of market milk.

The option in dairy manufactures is planned to meet the particular demands of those interested in the processing and distribution of milk, in dairy plant operation, and in the manufacture and sale of butter, cheese, ice cream, and other milk products.

The dairy herd and the dairy laboratories are available to students for instruction and for research. Excellent opportunity is, therefore, afforded to both advanced undergraduate and graduate students for original investigation and research. Graduates in the courses in dairy husbandry should be well qualified to become managers of dairy farms and dairy manufacturing plants, teachers, and investigators in the State and Federal Agricultural Experiment Stations; or to enter the field of commercial dairying.

Dairy Manufacturing

	Semester	
	I	II
<i>Sophomore Year</i>		
Elements of Organic Chemistry (Chem. 12Ay and 12By).....	3	3
Quantitative Analysis (Chem. 4f or s).....	—	4
General Bacteriology (Bact. 1f or s).....	4	—
Fundamentals of Dairying (D.H. 1f and D.H. 2s).....	3	3
Fundamentals of Economics (Econ. 57f or s).....	—	3
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Electives	4	1
	—	—
	16	16
<i>Junior Year</i>		
History and Geography of Dairying (D. H. 118f).....	2	—
Milk Bacteriology (Bact. 101f).....	3	—
Dairy Products Bacteriology (Bact. 102s).....	—	3
Dairy Manufacturing (D. H. 108f and 109s).....	5	5
Grading Dairy Products (D. H. 112s).....	—	1
Dairy Mechanics (D. H. 114f).....	2	—
Expository Writing (Eng. 5f and 6s).....	2	2
Electives	2	5
	—	—
	16	16

	Semester	
	I	II
<i>Senior Year</i>		
Dairy Production (D. H. 101f).....	3	—
Market Milk (D. H. 110f).....	5	—
Analysis of Dairy Products (D. H. 111s).....	—	3
Dairy Accounting (D. H. 115s).....	—	1
Dairy Plant Experience (D. H. 116f and D. H. 117s).....	3	1
Dairy Literature (D. H. 119f and D. H. 120s).....	1	1
Agricultural Economics (A. E. 100f).....	3	—
Electives	1	10
	—	—
	16	16

Dairy Production

Sophomore Year

Elect one of the following:

Economics (A. E. 1f and Econ. 57s).....	4-3	2-3
Elements of Organic Chemistry (Chem. 12 Ay and 12 By).....		
Fundamentals of Dairying (D. H. 1f and D. H. 2s).....	3	3
General Bacteriology (Bact. 1f or s).....	4	—
Geology and Soils (Geol. 1f and Soils 1s).....	3	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y or 8y).....	2	2
Electives	0	3
	—	—
	16	16

Junior Year

Expository writing (English 5f and 6s).....	2	2
Dairy Cattle Management (D H. 106f and 107s).....	3	3
Dairy Production (D. H. 101f and 102s).....	3	3
Principles of Breeding (A. H. 103s).....	—	3
Dairy Cattle Judging (D. H. 103s).....	—	1
Feeds and Feeding (A. H. 102f).....	3	—
Farm Drainage (Agr. Engr. 107s).....	—	2
History and Geography of Dairying (D. H. 118f).....	2	—
Electives	3	2
	—	—
	16	16

Senior Year

Animal Nutrition (A. H. 113f).....	—	3
Agricultural Economics (A. E. 100f).....	3	—
Market Milk (D. H. 110f).....	5	—
Milk Bacteriology (Bact. 101f).....	3	—
Advanced Study of Dairy Breeds (D. H. 105s).....	—	2
Electives	5	11
	—	—
	16	16

BACTERIOLOGY

This department has been organized with two main purposes in view. The first is to give all students of the University an opportunity to obtain a general knowledge of this basic subject. The second is to prepare students for bacteriological positions (including those of dairy, sanitary, food, and soil bacteriologists; and federal, state, and municipal bacteriologists); and for public health work of various types, research, and industrial positions.

	Semester	
	I	II
<i>Sophomore Year</i>		
Elements of Organic Chemistry (Chem. 12Ay).....	2	2
Elementary Organic Laboratory (Chem. 12By).....	1	1
German or French.....	3	3
General Bacteriology (Bact. 1f).....	4	—
Pathogenic Bacteriology (Bact. 2s).....	—	4
Expository Writing (Eng. 5f and 6s).....	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Electives	3-4	3-4
	17-18	17-18
<i>Junior Year</i>		
Milk Bacteriology (Bact. 101f).....	4	—
Sanitary Bacteriology (Bact. 112s).....	—	3
Serology (Bact. 115f)	4	—
Advanced Methods (Bact. 122s).....	—	2
General Physics ((Phys. 1y).....	4	4
Electives (Bact.)	—	2-4
Electives (Other)	3-5	2-6
	15-17	15-17
<i>Senior Year</i>		
Biological Statistics (G. and S. 111f).....	2	—
General Physiological Chemistry (Chem. 108s).....	—	4
Journal Club (Bact. 131f and 132s).....	1	1
Electives (Bact.)	5-6	4-2
Electives (Other)	6-9	6-10
	15-17	15-17

BOTANY

The Department of Botany offers three major fields of work: general botany and morphology, plant pathology, and plant physiology and ecology. The required courses for the freshman and sophomore years are the same for all students. In the junior and senior years, the student elects botanical courses to suit his particular interests in botanical science. Both the junior and senior years also allow considerable freedom in the election of non-

botanical courses, in order to round out a fairly broad cultural education. Through cooperation with the College of Education, students who wish to meet the requirements for the state high school teacher's certificates may elect the necessary work in education.

The curriculum as outlined lays a good foundation for students who wish to pursue graduate work in botanical science in preparation for college teaching and for research in state experiment stations, in the United States Department of Agriculture, and in private research institutions and laboratories.

The curriculum also affords students an opportunity for training for other vocations involving various botanical applications, such as extension work, and positions with seed companies, canning companies, companies making spray materials, and with other commercial concerns.

General Botany and Morphology, Physiology, and Pathology

	Semester	
	I	II
<i>Sophomore Year</i>		
Diseases of Plants (Plt. Path. 1f).....	4	—
Local Flora (Bot. 3s).....	—	2
General Botany (Bot. 2s).....	—	4
General Bacteriology (Bact. 1f).....	4	—
College Algebra (Math. 21f) and Analytic Geometry (Math. 22s)	3	3
*Modern Language	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Electives	—	2
	16	16

General Botany and Morphology, and Plant Physiology

<i>Junior Year</i>		
Plant Physiology (Plt. Phys. 101f).....	4	—
General Physics (Phys. 1y).....	4	4
Plant Ecology (Plt. Phys. 102s).....	—	3
Electives	8	9
	16	16
<i>Senior Year</i>		
Genetics (G. and S. 101f).....	3	—
Methods in Plant Histology (Bot. 107s).....	—	2
Botanical Electives (Maximum).....	5	12
Other Electives (Minimum)	8	2
	16	16

* Twelve hours of modern language are required. If it is not begun until the sophomore year, the last six hours will be elected in the junior or senior year.

Plant Pathology

	Semester	
	I	II
<i>Junior Year</i>		
Plant Physiology (Plt. Phys. 101f).....	4	—
General Physics (Phys. 1y).....	4	4
Introductory Entomology (Ent. 1s).....	—	3
Elements of Organic Chemistry (Chem. 12y).....	3	3
Research Methods (Plt. Path. 103s).....	—	2
Electives	6	3
	—	—
	17	15
<i>Senior Year</i>		
Plant Ecology (Plt. Phys. 102s).....	—	3
Mycology (Bot. 102f).....	4	—
Plant Anatomy (Bot. 101f).....	3	—
Genetics (G. and S. 101f).....	3	—
Diseases of Fruits (Plt. Path. 101s) or Diseases of Garden and Field Crops (Plt. Path. 102s).....	—	2
Electives	6	11
	—	—
	16	16

BIOLOGICAL CHEMISTRY

The objective of the curriculum in Biological Chemistry is the fitting of students for work in agricultural experiment stations, and in soil, fertilizer, and food laboratories.

ENTOMOLOGY

This department is engaged in the teaching of entomology to all agricultural students as a basis for future work in pest control, in the preparation of technically trained entomologists, and in furnishing courses to students in Arts and Sciences and Education.

The success of the farmer and particularly the fruit grower is in large measure dependent upon his knowledge of the methods of preventing or combating the pests that menace his crops. Successful methods of control are emphasized in the economic courses.

The fact that the entomological work of the Experiment Station, the Extension Service, the College of Agriculture, and the office of the State Entomologist are in one administrative unit, enables the student in this department to avail himself of the many advantages accruing therefrom. Advanced students have special advantages in that they may be assigned to work on Station projects already under way. The department takes every advantage of the facilities offered by the Bureau of Entomology of the U. S. Department of Agriculture, the Beltsville Research Center, the National Museum, Smithsonian Institution, various other local laboratories,

the libraries in Washington, and the Washington Entomological Society. There is an active Entomological Society composed of the students and staff of the department. A monthly news magazine is published, and there are numerous other profitable projects in which all students may participate. Thus students are given many opportunities of meeting authorities in the various fields of entomology, to observe projects under way, consult collections, and hear addresses on every phase of entomology. Following is the suggested curriculum in entomology. It can be modified to suit individual demand.

	Semester	
	I	II
<i>Sophomore Year</i>		
Introductory Entomology (Ent. 1f).....	3	—
Insect Morphology (Ent. 2s).....	—	3
Elements of Organic Chemistry (Chem. 12y).....	3	3
Modern Language (French 1y or German 1y).....	3	3
Diseases of Plants (Plt. Path. 1f).....	4	—
General Bacteriology (Bact. 1s).....	—	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	15	15
<i>Junior Year</i>		
Insect Taxonomy (Ent. 3f).....	3	—
Insect Biology (Ent. 5s).....	—	3
†Economic Entomology (Ent. 101y).....	2	2
Modern Language (French 3y or German 3y).....	3	3
General Physics (Phys. 1y).....	4	4
Electives	4-5	4-5
	—	—
	16-17	16-17
<i>Senior Year</i>		
†Insect Pests of Special Groups (Ent. 104f and s).....	3	3
Seminar (Ent. 103y).....	1	1
Special Problems (Ent. 110f and s).....	2	2
Electives	10-11	10-11
	—	—
	16-17	16-17

This curriculum is based on the option of mathematics in the freshman year, which subject should be elected by students wanting a major in entomology. Students electing another course will have to make certain changes in the sequence of some of the required courses.

† Ent. 101y and 104f and s taught in alternate years.

FARM MANAGEMENT

The courses in this department are designed to provide fundamental training in the basic economic principles underlying farming. While the curriculum is developed primarily from the viewpoint of farm management, sufficient basic courses in general agricultural economics, marketing, finance, and land economics are included to give the student the foundation needed to meet the production and distribution problems confronting the individual farmer in a progressive rural community.

Farming is a business, as well as a way of life, and as such demands for its successful conduct the use of business methods; the keeping of farm business records, analyzing the farm business, and of organizing and operating the farm as a business enterprise. It requires not only knowledge of many factors involved in the production of crops and animals, but also administrative ability to coordinate them into the most efficient farm organization. Such knowledge enables the student to perceive the just relationship of the several factors of production and distribution as applicable to local conditions, and to develop an executive and administrative capacity.

Students well trained in farm management are in demand for county agent work, farm bureau work, experiment station or United States Government investigation, and college or secondary school teaching.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Sophomore Year</i>		
Expository Writing (Eng. 5f and 6s).....	2	2
General Mathematics for Students of Economics (Math 20y) or College Algebra (Math. 21f) and Analytic Geometry (Math. 22s)	3-4	3-4
Fundamentals of Economics (Econ. 57s).....	—	3
General Horticulture (Hort. 1f).....	3	—
Geology (Geol. 1f).....	3	—
Soils and Fertilizers (Soils 1s).....	—	3
General Animal Husbandry (A. H. 1f).....	3	—
Poultry Management (Poultry 1s).....	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	16-17	16-17

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Junior Year</i>		
Agricultural Economics (A. E. 100f).....	3	—
Marketing of Farm Products (A. E. 102s).....	—	3
Analysis of the Farm Business (A. E. 107s).....	—	3
Feeds and Feeding (A. H. 101f).....	3	—
Business Law (O. and M. 101f and 102s).....	3	3
Money and Credit (Finance 51s).....	—	2
Farm Machinery (Agr. Engr. 101f).....	3	—
Electives	4	5
	—	—
	16	16
<i>Senior Year</i>		
Cooperation in Agriculture (A. E. 103f).....	3	—
Farm Management (A. E. 108f).....	3	—
Agricultural Finance (A. E. 104s).....	—	3
Rural Life and Education (R. Ed. 110s).....	—	3
Biological Statistics (G. and S. 111f and 112s).....	2	2
Land Economics (A. E. 111f).....	3	—
Prices (A. E. 106s).....	—	3
Electives	5	5
	—	—
	16	16

GENETICS AND STATISTICS

Rapid accumulation of knowledge in the field of genetics has changed the viewpoint of those interested in plant and animal breeding and in eugenics.

Teachers and investigators have increasing occasion to interpret statistical data presented by others, as well as to gather and organize original material.

The department of Genetics and Statistics offers students training in (1) the principles of heredity and genetics, and (2) the tools and methods employed in statistical description, induction, and design.

STATISTICS

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f and 3s).....	3	3
Calculus (Math. 23y).....	2	2
German or French.....	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3 y or 6 y and 8 y).....	2	2
Biology or Economic electives.....	6	6
	—	—
	16	16

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Junior Year</i>		
Higher Algebra (Math. 141f).....	2	—
Advanced Calculus (Math. 143f).....	2	—
Theory of Probabilities (Math. 132s).....	—	2
General Physics (Phys. 1y).....	4	4
*Elements of Statistics (G. and S. 14f).....	3	—
*Economic Statistics (G. and S. 15s).....	—	3
*Biological Statistics (G. and S. 111f).....	2	—
*Advanced Biological Statistics (G. and S. 112s).....	—	2
Electives (including requirements for a minor in either a biological science or economics).....	3	5
	—	—
	16	16
<i>Senior Year</i>		
Advanced Plane Analytic Geometry (Math. 145f).....	2	—
Theory of Equations (Math. 151f).....	2	—
Statistical Design (G. and S. 116s).....	—	2
Problems (G. and S. 120).....	—	4
Electives (including requirements for a minor in either a biological science or economics).....	12	10
	—	—
	16	16

HORTICULTURE

The State of Maryland and other States offer many excellent opportunities in horticultural industries; large fruit enterprises, producing apples, peaches, strawberries, raspberries, and other fruits for domestic and foreign markets; extensive greenhouse establishments, growing flowers and vegetables; canning and preserving factories in vegetable and fruit areas; nurseries, propagating trees and plants of all kinds; and concentrated farming areas devoted to vegetable production for market and canning. These industries require men with a specialized knowledge of production and marketing phases of the horticultural crops which are produced.

The Department of Horticulture offers instruction in pomology (fruits), olericulture (vegetables), floriculture (flowers), and ornamental gardening to meet the demand for men in the several horticultural industries, and in related work as teachers, county agents, fruit inspectors, and scientific investigators in private and public research laboratories, including special horticultural workers with fertilizer companies, seed companies, machinery companies, and related industries.

Students in horticulture have considerable latitude in the selection of horticultural courses, but usually find it advisable to specialize by electing all of the courses offered in pomology, olericulture, or floriculture, according to the following suggested curricula.

* Elect two.

The department is equipped with several greenhouses and a modern horticultural building, with laboratories and cold storage rooms, for horticultural teaching and research. Extensive acreage near the University is devoted to the growing of fruit trees and vegetable crops. An arboretum with many ornamental plants has been started on the University grounds for use in teaching of horticulture and other related subjects.

The following curricula will be adjusted to the special needs of students whose interests lie in the general scientific field or those who are preparing for work in technical lines. The object is to fit students most effectively to fill positions of several types.

Pomology and Olericulture

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Sophomore Year</i>		
Diseases of Plants (Plt. Path. 1f).....	4	—
Geology (Geol. 1f).....	3	—
Fundamentals of Economics (Econ. 57f).....	3	—
General Botany (Bot. 2s).....	—	4
Introductory Entomology (Ent. 1s).....	—	3
Soils and Fertilizers (Soils 1s).....	—	3-5
General Horticulture (Hort. 1f and 2s).....	3	3
Expository Writing (Eng. 5f and 6s).....	2	2
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	17	17
<i>Junior Year</i>		
Fruit Production (Hort. 3f).....	3-5	—
Plant Physiology (Plt. Phys. 101f).....	4	—
*Systematic Pomology (Hort. 103f) or *Systematic Olericulture (Hort. 104f).....	3	—
Small Fruits (Hort. 7s).....	—	2-3
Vegetable Production (Hort. 4s).....	—	2-4
Diseases of Fruits (Plt. Path. 101f).....	3	—
*World Fruits and Nuts (Hort. 105s).....	—	2
Electives.....	1-3	7-8
	—	—
	16	16
<i>Senior Year</i>		
Genetics (G. and S. 101f).....	3	—
Technology of Horticultural Plants, (Hort. 101f and 102s).....	3	2-3
*Insect Pests of Special Groups (Ent. 104f and s).....	3	3
Seminar (Hort. 14y).....	1	1
Electives.....	6	9-10
	—	—
	16	16

* Courses given in alternate years.

Floriculture and Ornamental Horticulture

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Sophomore Year</i>		
Diseases of Plants (Plt. Path. 1f).....	4	—
Geology (Geol. 1f).....	3	—
Fundamentals of Economics (Econ. 57f).....	3	—
General Botany (Bot. 2s).....	—	4
Introductory Entomology (Ent. 1s).....	—	3
Local Flora (Bot. 3s).....	—	2
General Horticulture (Hort. 1f and 2s).....	3	3
Expository Writing (Eng. 5f and 6s).....	2	2
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	17	16
<i>Junior Year</i>		
Plant Physiology (Plt. Phys. 101f).....	4	—
*Garden Flowers (Hort. 8f).....	3	—
Genetics (G. and S. 101f).....	3	—
Vegetable Production (Hort. 4s).....	—	2
Soils and Fertilizers (Soils 1s).....	—	5
*Greenhouse Management (Hort. 5f and 6s).....	3	4
Landscape Gardening (Hort. 10f).....	2	—
*Civic Art (Hort. 13s).....	—	2
Electives	1	3
	—	—
	16	16
<i>Senior Year</i>		
*Commercial Floriculture (Hort. 9y).....	3	3
Landscape Design (Hort. 11f and 12s).....	3	2
*Plant Materials (Hort. 106y).....	3	2
Technology of Horticultural Plants (Hort. 101f and 102s).....	1	1
Seminar (Hort. 14y)	1	1
Electives	5	7
	—	—
	16	16

POULTRY HUSBANDRY

The curriculum in poultry husbandry is designed to give the student a thorough knowledge of subject matter necessary for poultry raising; the marketing, distribution, and processing of poultry products; and poultry improvement work; and as a basis for graduate training for teaching and research in poultry husbandry.

The poultry industry of Maryland ranks second to dairying in economic importance among the agricultural industries of the State. Nearby markets provide a profitable outlet for poultry products of high quality in larger

* Courses given only in alternate years.

volume than now produced in the State. The necessary quality can be attained by intelligent, trained poultry husbandmen.

The suggested curriculum will be modified to meet the special needs of individual students. For example, most students will be expected to take the courses in agricultural industry and resources and farm organization offered in the general curriculum for the freshman year. Superior students, definitely anticipating preparation for a professional career in poultry husbandry, will be expected to take language instead. However, all students concentrating in poultry husbandry will be required to complete 24 semester hours in poultry husbandry.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Sophomore Year</i>		
Poultry Production (Poultry 1f).....	3	—
Poultry Management (Poultry 1s).....	—	3
Advanced Public Speaking (Speech 3f and 4s).....	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Elect one of the following:		
Elements of Organic Chemistry (Chem. 12Ay and 12By) }.....	3	3
Economics (Econ. 57f and A. E. 102s) }.....		
Elect two of the following:		
Calculus (Math. 23y).....	3-3	
Elementary Physics (Phys. 3y).....	3-3	
Modern language (French or German).....	3-3	
Introductory Entomology and Insect Biology (Ent. 1f and 5s).....	3-3	6
Agriculture (A. H. 1f and D. H. 2s or A. H. 2s).....	3-3	
or (Agron. 1f and 2s).....	3-3	
or (Hort. 1f and 4s).....	3-3	
	—	—
	16	16
<i>Junior Year</i>		
Poultry Biology (Poultry 2f).....	2	—
Poultry Genetics (Poultry 101s).....	—	3
Poultry Nutrition (Poultry 102f).....	2	—
Poultry Physiology (Poultry 106s).....	—	2
General Bacteriology (Bact. 1f).....	4	—
Agricultural Finance (A. E. 104s).....	—	3
Genetics (G. and S. 101f).....	3	—
Elect one of the following:		
General Physiological Chemistry (Chem. 108s).....	— 4	
Pathogenic Bacteriology (Bact. 2s).....	— 4	4
Economics (Econ. 57f and A. E. 102s) or		
Electives	3	4
Farm Buildings (Agr. Engr. 105f).....	2	—
	—	—
	16	16

Senior Year

Semester
I II

Elect at least nine semester hours from the following:

Poultry Products (Poultry 104y).....	2-2	}	3-7	1-5
Poultry Hygiene (V. S. 107f).....	2-			
Poultry Industrial and Economic Problems (Poultry 107y).....	2-2			
Poultry Literature (Poultry 109f and s).....	1-1			
Statistics (G. and S. 111f and 112s).....			2	2
Rural Sociology (Soc. 101f).....			2	—
Preservation of Poultry Products (Poultry 105s).....			—	3
Electives			3-9	5-11
			—	—
			16	16

SPECIAL STUDENTS IN AGRICULTURE

Mature students who are not candidates for degrees may, on consent of the dean, register as special students and pursue a program of studies not included in any regular curriculum, but arranged to meet the needs of the individual. In case such persons have not fulfilled the regular college entrance requirements, they may arrange to audit (to attend without "credit") certain of the agricultural classes. All university fees for these special students are the same as fees for regular students.

There are many young farmers who desire to take short intensive courses in their special lines of work during slack times on the farm. Arrangements have been made to permit such persons to register at the office of the Dean of the College of Agriculture and receive cards granting them permission to visit classes and work in the laboratories of the different departments. This opportunity is created to aid florists, poultrymen, fruit-growers, gardeners, or other especially interested persons who are able to get away from their work at some time during the year.

The regular charges are *\$5.00 for registration and \$1.00 per week for the time of attendance.

* One registration is good for any amount of regular or intermittent attendance during a period of four years.

AGRICULTURAL EXPERIMENT STATION

The Agricultural Experiment Station is the research agency of the University, dealing with problems related to agriculture. Support for research is provided by both State and Federal appropriations. The Federal Acts are as follows: Hatch Act, 1887; Adams Act, 1906; Purnell Act, 1925; and Bankhead-Jones Act, 1935.

The Hatch Act established State Experiment Stations and defined the scope and type of original researches that might be undertaken. In general, the work done under the Hatch and Adams funds pertains to the physical and biological sciences and promotes a better understanding of plants and animals. The Purnell Act bears more directly upon investigations and experiments having to do with manufacture, preparation, use, distribution, and marketing of agricultural products. Its funds may be used also for such economic and sociological investigations as have for their purpose the development and improvement of rural homes and rural life. Work under Bankhead-Jones funds must have a bearing upon new and improved methods of production and distribution, new and extended use and markets for agricultural commodities and by-products and manufactures thereof, and research relating to conservation, development, and use of land and water resources for agricultural purposes.

In addition to work conducted at the University, the Station operates an experimental farm of 50 acres at Ridgely for canning crops and grain farming, a farm of 60 acres at Upper Marlboro for tobacco investigations, and a farm of 234 acres near Ellicott City for livestock. Regional tests and experiments are conducted in cooperation with farmers at many different points in the State. Most of these cooperative experiments deal with crops, soils, fertilizers, orchards and insect and plant disease control, and serve as checks upon the more detailed and fundamental work done at the main Station.

EXTENSION SERVICE

The Extension Service of the University of Maryland was established by State and Federal laws, and is designed to assist farmers and their families in promoting the prosperity and welfare of agriculture and rural life. Its work is conducted in cooperation with the United States Department of Agriculture.

The Extension Service is represented in each county of the State by a county agent and a home demonstration agent. Through these agents

and its staff of specialists, it comes into intimate contact with rural people and with problems of the farm and home.

Practically every phase of agriculture and rural home life comes within the scope of extension work. Farmers are supplied with details of crop and livestock production, and with instructions for controlling diseases and insect pests; they are encouraged and aided in organized efforts, helped with marketing problems and assisted in improving economic conditions on the farm. Rural women are assisted likewise in problems of the home and with such information as tends to make rural home life attractive and satisfying. The 4-H Club work for rural boys and girls provides a valuable type of instruction in agriculture and home economics, and affords a real opportunity to develop self-confidence, perseverance, and leadership.

The Extension Service works in accord with all other branches of the University and with all agencies of the United States Department of Agriculture. It is charged with carrying out in Maryland the program of the Agricultural Adjustment Administration. It cooperates with all farm and community organizations in the State which have as their major object the improvement of agriculture and rural life; and it aids in making effective the regulatory and other measures instituted by the State Board of Agriculture.

REGULATORY ACTIVITIES

Regulatory services carried on under the supervision of members of the faculty and staff of the College of Agriculture have as their general aim the reduction of loss caused by insect pests and diseases of animals and plants, protection of human health by guarding against communicable diseases of livestock and unwholesome products, improvement in quality of farm products, and maintenance of guaranteed quality in seeds, feeds, fertilizers, and limes. These services are carried on in accordance with laws and regulations under which they were established. Actual enforcement is involved in some activities, while in others the work is primarily or entirely educational.

Agencies engaged in various forms of regulatory activities include the Livestock Sanitary Service, State Horticultural Department, State Department of Markets, State Seed Service, and State Department of Forestry. Operating under the State Chemist at the University, there is also the enforcement of regulations pertaining to fertilizers, limes, and feeds.

These agencies are at work constantly in efforts to control and eradicate, when possible, any serious pests and diseases of animals, of crops of all kinds, of shade trees, of ornamental plants, and of forest trees. They are ever on the alert to prevent introduction of pests and diseases into the State and execute the laws and regulations with respect to shipping animals, plants, and other products into and out of Maryland. They deal

with such problems as control and eradication of tuberculosis and Bang's disease of cattle, Japanese beetle, and white pine blister rust.

By inspection and certification of seeds and farm products and through demonstrations of recognized grades and standards, they contribute to improvement in quality and marketing conditions.

COLLEGE OF ARTS AND SCIENCES

L. B. BROUGHTON, *Dean.*

The College of Arts and Sciences provides four years of liberal training in biological sciences, economics, history, languages and literatures, mathematics, philosophy, physical sciences, political science, psychology, and sociology. It thus affords an opportunity to acquire a general education which will serve as a foundation for whatever profession or vocation the student may choose. In particular, it lays the foundation for the professions of law, medicine, theology, and teaching, and the more technical professions of engineering, public health service, public administration, and business. The College of Arts and Sciences offers to the students of the other colleges of the University training in fundamental subjects, both classical and scientific, which should permit them to acquire the perspective necessary for liberal culture and public service.

Divisions

The College of Arts and Sciences is divided into one Lower Division and three Upper Divisions. Under the latter are grouped the following departments:

- (1) The Division of Humanities: Art, Classical Languages, Comparative Literature, English Literature and Philology, Modern Languages, Music, Philosophy, and Speech.
- (2) The Division of Natural Sciences:
 - A. The Physical Sciences: Astronomy, Chemistry, Geology, Mathematics, Physics, and Statistics.
 - B. The Biological Sciences: Bacteriology, Botany, Entomology, Genetics, and Zoology.
- (3) The Division of Social Sciences: Economics, History, Political Science, Psychology, and Sociology.

The work of the first and second years in the College of Arts and Sciences is taken in the Lower Division. It is designed to give the student a basic general education, and to prepare him for specialization in the junior and senior years.

The Upper Divisions direct the courses of study of students doing their major work in the College of Arts and Sciences during their junior and senior years, and designate general requirements, the fulfillment of which is necessary to qualify a student for admission to major work in an Upper Division.

Requirements for Admission

The requirements for admission to the College of Arts and Sciences are, in general, the same as those for admission to the other colleges and schools of the University. See Section I, Admission, page 45.

For admission to the premedical curriculum, two years of any one foreign language in addition to the regularly prescribed units are required. A detailed statement of the requirements for admission to the School of Medicine and the relation of these to the premedical curriculum will be found under the heading School of Medicine. See page 195.

Students with Advanced Standing

Students entering the College of Arts and Sciences with advanced standing from other accredited universities, or from other colleges of this university, who fail to meet the requirements of the first two years must make up all deficiencies.

Degrees

The degrees conferred upon students who have met the requirements prescribed in the College of Arts and Sciences are Bachelor of Arts and Bachelor of Science.

Graduates of this college who have completed the regular course are awarded the degree of Bachelor of Arts. Upon request, any student who has met the requirements for the degree of Bachelor of Science may be awarded that degree, provided the major portion of the work has been done in the field of science, and the application has the approval of the science department in which the major work has been carried.

Students who have elected the combined program of Arts and Medicine may be granted the degree of Bachelor of Science after the completion of at least three years of the work of this college and the first year of the School of Medicine.

Those electing the combined five-year Academic and Nursing Course, for which the degree of Bachelor of Science in Nursing may be awarded upon the completion of the full course, must take the Prenursing curriculum at College Park before the Nursing Course in Baltimore.

Those taking the combined course in Arts and Law may be awarded the Bachelor of Arts degree after the completion of three years of the work of this college and one year of the full-time law course, or its equivalent, in the School of Law.

Residence

The last thirty credits of any curriculum leading to a baccalaureate degree in the College of Arts and Sciences must be taken in residence in this college.

Requirements for Degrees

The baccalaureate degree from the College of Arts and Sciences may be conferred upon a student who has satisfied the following requirements:

1. University Requirements.
2. College of Arts and Science Requirements.
3. Major and Minor Requirements.
4. Special Upper Division Requirements.

1. *University Requirements*—See page 53.

2. *College of Arts and Sciences Requirements*—A minimum of 120 credits must be acquired, not including the six credits of basic military science required of all able-bodied men students, or the six credits of physical education for women and for such men as are excused from military science. Of these 120 credits 60 are to be acquired in the Lower Division and 60 in one of the Upper Divisions.

A student must acquire at least 58 credits, exclusive of military science and physical education, with an average grade of at least C in the Lower Division, before being admitted to an Upper Division.

The following minimum requirements should be fulfilled, as far as possible, before the beginning of the junior year and must be completed before graduation:

A. English and Speech—fourteen credits. Of these, Survey and Composition I (Eng. 1y) and Reading and Speaking (Speech 1y) are required.

B. Foreign Languages and Literature—twelve credits.

C. Social Sciences—twelve credits. This requirement is fulfilled by electing courses in Economics, History, Political Science, Psychology, and Sociology.

D. Natural Sciences and Mathematics—twelve credits. Of these one year must be in natural science.

E. Military Science or Physical Education—six credits.

3. *Major and Minor Requirements*—At the beginning of the junior year each student must select a major in one of the fields of study of an Upper Division, and before graduation must complete a major and a minor. The courses constituting the major and the minor selected must conform to the requirements of the department in which the major work is done.

Before beginning a major or a minor the student must have acquired twelve credits in fundamental courses in the field chosen, or in a closely related field satisfactory to the Division, with an average grade of at least C, before credit will be allowed toward completion of the major or minor requirements.

A major shall consist of not fewer than 20 nor more than 36 credits, in addition to the 12 prerequisite credits, in one of the fields of study. Of

these advanced credits at least 8 must be acquired in courses listed for advanced undergraduates and graduates.

A minor shall consist of not fewer than 12 nor more than 20 credits, in addition to the 12 prerequisite credits, in some field of study other than the major. At least 6 of these must be acquired in courses listed for advanced undergraduates and graduates.

Not more than 15 credits may be acquired in any field of study other than the major or minor during the last two years, in addition to those which meet the College of Arts and Sciences requirements. (See page 98.)

The average grade of the work taken in the major and minor fields must be at least C.

4. *Special Upper Division Requirements*—

A. Division of Humanities. See page 103.

B. Division of Natural Sciences. See page 106.

C. Division of Social Sciences. See page 120.

Certification of High School Teachers

If electives be properly chosen in educational courses, a prospective high school teacher can prepare for high school positions, with major electives in any of the Upper Divisions and minor electives in the College of Education.

Electives in Other Colleges and Schools

A limited number of courses may be counted for credit in the College of Arts and Sciences for work done in other colleges and schools of the University.

The number of credits which may be accepted from the various colleges and schools is as follows:

College of Agriculture—Fifteen.

College of Education—Twenty

College of Engineering—Fifteen.

College of Home Economics—Fifteen.

School of Law—In the combined program the first year of law must be completed.

School of Medicine—In the combined program the first year of medicine must be completed.

School of Nursing—Three years in combined program.

Normal Load

The normal load for the freshman in this college is sixteen credits per semester, including one hour of basic military science or physical education.

The normal load for the sophomore year is seventeen credits per semester, two of which are in military science or physical education.

The normal load in the junior and senior years is 15 credits per semester. With the permission of the Dean of the College of Arts and Sciences and the Chairman of the Division, this load may be increased to 17, a maximum except for honor students. The load of honor students shall lie within the discretion of the Dean and the Chairman of the Division, but in no case shall it exceed 19 credits per semester.

Advisers

Freshmen and sophomores in this college shall consider the Dean of the College and the Chairman of the Lower Division their advisers.

On entrance to the University each student of the College of Arts and Sciences is assigned to a member of the faculty of the College, who serves as his special adviser. The student should consult his adviser on all matters of his university life in which he may need advice.

Juniors and seniors must consider the chairmen of their major departments their advisers, and shall consult them about the arrangements of their schedules of courses and any other matters in which they may desire advice.

THE LOWER DIVISION

CHARLES E. WHITE, *Chairman.*

The work of the first two years in the College of Arts and Sciences is designed to give the student a basic general education, and to prepare him for specialization in the junior and senior years.

It is the student's responsibility to develop in these earlier years such proficiency in basic subjects as may be necessary for his admission into one of the Upper Divisions of the College. Personal aptitude and a general scholastic ability must also be demonstrated, if permission to pursue a major study is to be obtained.

Suggested courses of study for the freshman and sophomore years are given under certain of the Upper Divisions. The student should follow the curriculum for which he is believed to be best fitted. It will be noted that there is a great deal of similarity in these outlines for the first two years, and a student need not consider himself attached to any particular Upper Division until the beginning of his junior year, at which time it is necessary to select a major.

The Requirements of the College of Arts and Sciences for graduation as outlined on page 98, should be completed as far as possible in the Lower Division.

TYPICAL FRESHMAN PROGRAM

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Required:		
*Survey and Composition I (Eng. 1y).....	3	3
Foreign Language (French, German, Spanish, Latin, Greek)	3	3
Science (Botany, Chemistry, Entomology, Geol- ology, Physics, Zoology).....	3 or 4	3 or 4
Basic R. O. T. C. (M. I. 1y or Physical Educa- tion (Phys. Ed. 1y or 2y and 4y).....	1	1
Elect one of the following:		
Introduction to the Social Sciences (Soc. Sci. 1y)	—6	
General European History (H. 1y).....	—6	3 3
History of England and Greater Britain (H. 3y)	—6	
Economic Geography and Industry (T. and T. 1f) and History of World Commerce (T. and T. 4s)	—6	

* A placement test is given during Freshman Week to determine whether the student is adequately prepared for Eng. 1y. A student failing this test is required to take Eng. A, a one-semester course, without credit. After five weeks, he may be transferred from Eng. A to Eng. 1y, for which he will receive full credit, or from Eng. 1y to Eng. A, according to his demonstrated ability.

Elect two to four credits each semester from the following:

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Mathematics (Math. 8f and 10s; 21f and 22s).....	—6 or 8	
American National Government (Pol. Sci. 1f or 1s)	—3	
State and Local Government (Pol. Sci. 4s).....	—2	
Reading and Speaking (Speech 1y).....	—2	
Ancient History (H. 129f and H. 130s).....	—2 or 4	
Art in Ancient Civilization I and II (Art 1f and 2s)	—1 or 2	2-4
Library Methods (L. S. 1f or s).....	—1	
Music (Mus. 1y and 2y, or 5y).....	—4	
Women's Chorus (Mus. 3Ay) or Men's Glee Club (Mus. 3By)	—1	
Mechanical Drawing (Dr. 4y).....	—2	
Total	16-17	16-17

TYPICAL SOPHOMORE PROGRAM

Survey and Composition II (Eng. 2f and 3s).....	3	3
Foreign Language	3	3
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
General Electives from the College of Arts and Sciences fulfilling, as far as possible, the College of Arts and Sciences Requirements for graduation. See page 98.....	9-10	9-10
Total	17-18	17-18

THE DIVISION OF HUMANITIES

CHARLES B. HALE, *Chairman*

The Division of Humanities is composed of the Departments of Art, Classical Languages, Comparative Literature, English Language and Literature, Modern Languages, Music, Philosophy, and Speech.

This Division has two main functions: (1) to provide for its own major students a thorough training in literature, philosophy, languages, and the fine arts; (2) to furnish for students in other Divisions, especially for those taking preprofessional work, background and elective studies in the departments of the Division.

At present, the Division offers major and minor work for the Master of Arts and the Doctor of Philosophy degrees in English Language and Literature, and for the Master of Arts in Modern Languages; minor work for the Master of Arts may be elected in Philosophy and Comparative Literature. Detailed requirements for these degrees are given under the departmental announcements and in the catalogue of the Graduate School.

Training for the Master of Arts degree is directed especially toward acquainting the candidate with methods of research and the literature in his own fields. For the degree of Doctor of Philosophy, the candidate is required not only to be thoroughly acquainted with his major and minor fields and with the scholarly accomplishments therein, but also to devote himself intensively to a specific research problem in which he shall make an original contribution to human knowledge.

Additional Requirements for Graduation

The following requirements in addition to those required by the College of Arts and Sciences (see page 98) should be completed, as far as possible, before the beginning of the junior year.

1. *Library Science*—one credit.
2. *English 2f and 3s*—six credits.
3. *Modern Language*—To be accepted unconditionally in the Division of Humanities, a student must have attained a reasonable proficiency in at least one foreign language. In satisfaction of this requirement, he must pass one of the general language examinations, which are given during the first and last days of each college year, with a grade as high as C. Maryland students should take the examination not later than the close of the sophomore year or the beginning of the junior year. Transfer students should take the examination upon entrance. The student must show in this examination that he has

reached the level of attainment to be expected after two years of a college language course: (1) that he can translate with reasonable accuracy; (2) that his pronunciation is approximately correct; (3) that he is acquainted with the elements of grammar. When the student has passed the general language examination, he will have satisfied the language requirements; but in no case will a student in the Division be graduated who has not acquired at least 12 credits of a foreign language in college.

4. *Philosophy*—three credits.
5. *Psychology*—three credits.
6. *Major and Minor Requirements*—In selecting a major or a minor, a student must have acquired twelve credits in fundamental courses in the field chosen, or in a closely related field satisfactory to the Division, with an average grade of at least C, before credit will be allowed toward the completion of the major or minor requirements. In addition:

A major shall consist of not fewer than 20 nor more than 36 credits in one of these fields of study. At least 16 of these credits must be taken in courses listed for advanced undergraduates and graduates.

A minor shall consist of not fewer than 12 nor more than 20 credits in one of the above fields of study not selected for the major, or in some other field of study authorized in the College of Arts and Sciences. At least 9 of these credits must be taken in courses listed for advanced undergraduates and graduates.

The student must acquire at least 30 credits in courses not included in the major or minor.

For additional requirements for major students, see the departmental announcements under English (page 280) and Modern Languages (page 309).

MAJOR AND MINOR

Fields of Study

*Classical Languages	German
*Comparative Literature	*Philosophy
English	*Speech
French	Spanish

* Not available at present for a major.

THE DIVISION OF NATURAL SCIENCES

The Division of Natural Sciences is composed of the following departments:

- A. The Physical Sciences: Astronomy, Chemistry, Geology, Mathematics, Physics, and Statistics.
- B. The Biological Sciences: Bacteriology, Botany, Entomology, Genetics, and Zoology.

In its curricula, each requiring four years for completion, this division prepares students for the degree of Bachelor of Science or Bachelor of Arts.

Courses in the various departments are designed to meet five distinct needs:

- (1) To contribute toward the liberal education of students whose main interest does not lie in the field of Natural Sciences.
- (2) To provide the scientific foundation necessary for the professions of agriculture, dentistry, engineering, home economics, medicine, nursing, pharmacy, etc.
- (3) To furnish the basic knowledge for prospective teachers and instructors in the Natural Sciences for secondary schools and colleges.
- (4) To train students for positions as bacteriologists, botanists, chemists, entomologists, geologists, mathematicians, physicists, statisticians, zoologists in experimental scientific laboratories in colleges, government departments, and industry.
- (5) To prepare for graduate study in the Natural Sciences.

The Natural Sciences have grown so vast and their applications have become so extensive that it is impossible to deal with all phases of any one of them in the four years of college study. For this reason a vital part of the work of the Division is in the form of graduate courses. In the work leading toward the degree of Master of Science or Master of Arts the student becomes acquainted with the general aspects of his chosen field. In preparation for the degree of Doctor of Philosophy the student is trained in methods of research which should enable him to add to human knowledge, undertake independent investigations in his field, or take charge of industrial developments. (A description of the courses for undergraduates and graduates in this Division is given in Section III of this catalogue, Description of Courses).

A—THE PHYSICAL SCIENCES

Major and Minor Fields of Study

Requirements for Graduation

1. University Requirements—See page 53.
2. College of Arts and Sciences Requirements—See page 98.
3. Major and Minor Requirements—See page 98.

CHEMISTRY

The Department of Chemistry includes Agricultural, Analytical, Industrial, Inorganic, Organic, and Physical Chemistry, together with the State Control Work. The following curriculum prepares students to enter the fields of General Chemistry, Industrial Chemistry, Biological Chemistry, and Agricultural Chemistry.

Suggested Curriculum

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
French or German (French 1y or German 1y).....	3	3
College Algebra and Analytic Geometry (Math. 21f and 22s).....	4	4
General Chemistry (Chem. 1y).....	4	4
Reading and Speaking (Speech 1y).....	1	1
Mechanical Drawing (Dr. 4y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Freshman Lectures	—	—
	—	—
	17	17
<i>Sophomore Year</i>		
Expository Writing (Eng. 5f and 6s).....	2	2
French or German (French 3y or German 3y).....	3	3
Calculus (Math. 23y).....	4	4
Qualitative Analysis (Chem. 2y).....	3	3
Elementary Organic Chemistry (Chem. 8Ay and 8By).....	4	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	18	18
<i>Junior Year</i>		
Quantitative Analysis (Chem. 6y).....	4	4
Advanced Organic Chemistry (Chem. 116y and 117y).....	3	3
General Physics (Phys. 2y).....	5	5
Electives	3	3
	—	—
	15	15

Semester

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Senior Year</i>		
Physical Chemistry (Chem. 102y).....	5	5
Electives	10	10
	—	—
	15	15

CHEMICAL ENGINEERING—CHEMISTRY

A five-year program in Chemical Engineering and Chemistry will be arranged between the College of Engineering and the College of Arts and Sciences which will permit students who so desire to become candidates for the degrees of Bachelor of Science and Bachelor of Science in Engineering.

Mathematics

Suggested Curriculum

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
French or German (French 1y or German 1y).....	3	3
College Algebra and Analytic Geometry (Math. 21f and 22s).....	4	4
Geometrical Drawing and Modeling (Math. 18y).....	1	1
Reading and Speaking (Speech 1y).....	1	1
General Chemistry (Chem. 1y).....	4	4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Freshman Lectures	—	—
	—	—
	17	17
<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f and 3s).....	3	3
French or German (French 3y or German 3y).....	3	3
Calculus (Math. 23y).....	4	4
Advanced Geometrical Drawing and Modeling (Math. 19y).....	1	1
General Physics (Phys. 2y).....	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	18	18

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Junior Year</i>		
Higher Algebra (Math. 141f).....	2	—
Advanced Calculus (Math. 143f).....	2	—
Electives in Mathematics.....	3	3
Physical Chemistry (Chem. 102Ay).....	3	3
Theoretical Mechanics (Phys. 106s) or Electricity and Magnetism (Phys. 108s).....	—	3
Electives	8	5
	—	—
	15	15

<i>Senior Year</i>		
History of Modern Mathematics (Math. 157s).....	—	2
Electives (Mathematics and Astronomy).....	4	2
Undergraduate Seminar (Math. 140y).....	1	1
Electric Discharge (Phys. 109y).....	3	3
Electives	7	7
	—	—
	15	15

Physics

Suggested Curriculum

<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
French or German (French 1y or German 1y).....	3	3
College Algebra and Analytic Geometry (Math. 21f and 22s).....	4	4
General Chemistry (Chem. 1y).....	4	4
Mechanical Drawing (Dr. 4y).....	1	1
Reading and Speaking (Speech 1y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Freshman Lectures	—	—
	—	—
	17	17

<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f and 3s).....	3	3
French or German (French 3y or German 3y).....	3	3
Calculus (Math. 23y).....	4	4
General Physics (Phys. 2y).....	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	17	17

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Junior Year</i>		
Advanced Calculus (Math. 143f and 144s).....	2	2
Advanced Physics (Phys. 101f, 102s, 105f, 106s, 107f, 108s).....	6	3
Qualitative Analysis (Chem. 2y).....	3	3
Electives	4	7
	—	—
	15	15

<i>Senior Year</i>		
Physical Chemistry (Chem. 102Ay).....	3	3
Advanced Physics (Phys. 101f, 102s, 105f, 106s, 107f, 108s, 109y)	6	3
Electives	6	9
	—	—
	15	15

Statistics

The courses in Statistics are intended to provide training in the tools and methods employed in statistical description and induction, in the interpretation of statistical data presented by others, and in the gathering and organization of original data. The following four-year outline is offered for those who wish to specialize in this field:

Suggested Curriculum

<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
French or German (French 1y or German 1y).....	3	3
College Algebra and Analytic Geometry (Math. 21f and 22s).....	4	4
General Chemistry (Chem. 1y).....	4	4
Reading and Speaking (Speech 1y).....	1	1
Mechanical Drawing (Dr. 4y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	—	—
	17	17

<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f and 3s).....	3	3
Calculus (Math. 23y).....	4	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
French or German (French 3y or German 3y).....	3	3
Biology or Economics electives.....	4	4
	—	—
	16	16

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Junior Year</i>		
Higher Algebra (Math. 141f).....	2	—
Advanced Calculus (Math. 143f).....	2	—
Theory of Probabilities (Math. 132s).....	—	2
General Physics (Phys. 1y).....	4	4
Elements of Statistics (G. and S. 14f).....	3	—
Economic Statistics (G. and S. 15s).....	—	3
Biological Statistics (G. and S. 111f).....	2	—
Advanced Biological Statistics (G. and S. 112s).....	—	2
Electives (including requirements for a minor in either a biological science or economics).....	3	5
	—	—
	16	16
<i>Senior Year</i>		
Advanced Plane Analytic Geometry (Math. 145f).....	2	—
Theory of Equations (Math. 151f).....	2	—
Statistical Design (G. and S. 116s).....	—	2
Problems (G. and S. 120s).....	—	4
Electives (including requirements for a minor in either a biological science or economics).....	12	10
	—	—
	16	16

General Physical Sciences

For the benefit of students who desire a general basic knowledge of the physical sciences without immediate specialization in any one of them, a general curriculum is arranged. The curriculum suggested should familiarize the student with the general principles and methods of each of the physical sciences.

By the proper selection of courses in the junior and senior years a student may concentrate his work sufficiently in any one of the fields of study to be able to continue in graduate work in that field.

Requirement

A major in general physical sciences shall consist of not less than 52 credits in the physical sciences, of which not less than 16 credits must be acquired in courses listed for advanced undergraduates and graduates.

Suggested Curriculum

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
French or German (French 1y or German 1y).....	3	3
College Algebra and Analytic Geometry (Math. 21f and 22s).....	4	4
General Chemistry (Chem. 1y).....	4	4
Reading and Speaking (Speech 1y).....	1	1
Mechanical Drawing (Dr. 4y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	—	—
Freshman Lectures	17	17
<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f and 3s).....	3	3
French or German (French 3y or German 3y).....	3	3
Electives (Sciences)	4	4
General Physics (Phys. 2y).....	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	17	17
<i>Junior Year</i>		
Electives (Chemistry)	4	4
Electives (Social Sciences)	3	3
Electives (Mathematics)	2-3	2-3
Electives (Physics)	3	3
Elective	3	3
	—	—
	15-16	15-16
<i>Senior Year</i>		
Elective (Social Sciences).....	3	3
Electives	12	12
	—	—
	15	15

THE PREPROFESSIONAL CURRICULA

Five-Year Combined Arts and Nursing Curriculum

The first two years of this curriculum are taken in the College of Arts and Sciences at College Park. If students enter this combined program with advanced standing, at least the second full year of this curriculum must be completed in College Park.

The remaining three years are taken in the School of Nursing of the University in Baltimore or in the Training School of Mercy Hospital, Baltimore. In addition to the Diploma in Nursing, the degree of Bachelor

of Science may, upon the recommendation of the Director of the School of Nursing, be granted at the end of the five year curriculum. Full details regarding this curriculum may be found in the section of the catalogue dealing with the School of Nursing. See page 198.

The Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Foreign Language	3	3
General Chemistry (Chem. 1y).....	4	4
Reading and Speaking (Speech 1y).....	1	1
History (H. 1y or 3y).....	3	3
State and Local Government (Pol. Sci. 4s).....	—	2
Library Methods (L. S. 1f).....	1	—
Physical Education (Phys. Ed. 2y and 4y).....	1	1
Freshman Lectures	—	—
	16	17
<i>Sophomore Year</i>		
Expository Writing (Eng. 5f and 6s).....	2	2
Principles of Sociology (Soc. 1f).....	3	—
Introduction to Psychology (Psych. 1s).....	—	3
Fundamentals of Economics (Econ. 57f).....	—	3
General Bacteriology (Bact. 1f).....	4	—
General Zoology (Zool. 1s).....	—	4
Foods (H. E. 31y).....	3	3
Nutrition (H. E. 131f).....	3	—
Physical Education (Phys. Ed. 6y and 8y).....	2	2
	17	17

Premedical

The minimum requirement for admission to the School of Medicine of the University of Maryland is three years of academic training in the College of Arts and Sciences. Curriculum I as outlined meets these requirements, and also fulfills the requirements prescribed by the Council on Medical Education of the American Medical Association.

Curriculum II is outlined to meet the requirements of the Council on Medical Education of the American Medical Society, which prescribes two years of academic training as the minimum prerequisite for entering a Class A Medical School.

Curriculum I offers to students completing this program and the first year of study in the University of Maryland School of Medicine the oppor-

tunity of securing the Bachelor of Science degree, on recommendation of the Dean of the School of Medicine.

The combined program of seven years leads to the degrees of Bachelor of Science and Doctor of Medicine upon the completion of the full curriculum. The first three years are taken in residence in the College of Arts and Sciences, and the remaining four in the School of Medicine.

At least two years of residence are necessary for students transferring from other colleges and universities who wish to become candidates for the two degrees.

For requirements for admission see Section I (Admission) page 45.

Curriculum I

For students expecting to enter the University of Maryland Medical School

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
College Algebra and Analytic Geometry (Math. 8f or 21f and 22s)	3	3
Invertebrate Morphology (Zool. 3f).....	4	—
Comparative Vertebrate Morphology (Zool. 4s).....	—	4
General Chemistry (Chem. 1y).....	4	4
French or German (French 1y or German 1y).....	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	18	18
<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f and 3s).....	3	3
Elementary Organic Chemistry (Chem. 8Ay and 8By).....	4	4
French or German (French 3y or German 3y).....	3	3
Animal Histology (Zool. 12f).....	3	—
Vertebrate Embryology (Zool. 20s).....	—	3
Introduction to Philosophy (Phil. 1f).....	3	—
Introduction to Psychology (Psych. 1s).....	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	18	18
<i>Junior Year</i>		
General Physics (Phys. 1y).....	4	4
Elements of Physical Chemistry (Chem. 103y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
Electives (Social Sciences).....	3	3
Electives (Biological Sciences).....	4	4
	15	15

Senior Year

The curriculum of the first year of the School of Medicine. The student also may elect the fourth year's work from advanced courses offered in the College of Arts and Sciences. In either case all the requirements of the Division of Natural Sciences for graduation must have been met.

Curriculum II

For students desiring to meet the minimum requirements for admission to a Class A Medical School.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
College Algebra and Analytic Geometry (Math. 8f or 21f and 22s)	3	3
Invertebrate Morphology (Zool. 3f).....	4	—
Comparative Vertebrate Morphology (Zool. 4s).....	—	4
General Chemistry (Chem. 1y).....	4	4
French or German (French 1y or German 1y).....	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Freshman Lectures	—	—
	18	18
<i>Sophomore Year</i>		
General Physics (Phys. 1y).....	4	4
Elementary Organic Chemistry (Chem. 8Ay and 8By).....	4	4
Reading and Speaking (Speech 1y).....	1	1
Animal Histology (Zool. 12f).....	3	—
Introduction to Psychology (Psych. 1s).....	—	3
Survey and Composition II (Eng. 2f and 3s).....	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	17	17

PRE-DENTAL

Students entering the College of Arts and Sciences who desire to prepare themselves for the study of dentistry are offered the following two-year curriculum, which meets the pre-dental requirements of the American Association of Dental Colleges. This curriculum can also be used by the student if he desires to continue his college training and complete work for the Bachelor of Science degree.

The Curriculum

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
College Algebra and Analytic Geometry (Math. 8f or 21f and 22s)	3	3
General Chemistry (Chem. 1y).....	4	4
Invertebrate Morphology (Zool. 3f).....	4	—
Comparative Vertebrate Morphology (Zool. 4s).....	—	4
Mechanical Drawing (Dr. 4y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Freshman Lectures	—	—
	17	17
<i>Sophomore Year</i>		
Elementary Organic Chemistry (Chem. 8Ay and 8By).....	4	4
General Physics (Phys. 1y).....	4	4
French or German.....	3	3
Electives (Humanities, Social Sciences).....	4	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	17	17

B. THE BIOLOGICAL SCIENCES

Requirements for Graduation

1. University requirements—See page 53.
2. College of Arts and Sciences Requirements—See page 98.
3. Physical Sciences and Mathematics—twenty-two credits including basic courses in Chemistry, Mathematics, and Physics.
4. Major and Minor Requirements—See page 98.

Major and Minor

Fields of Study

BACTERIOLOGY AND PATHOLOGY

The courses in this Department prepare students for such positions as dairy, sanitary, food, and soil bacteriologists in federal, state, and municipal departments and for public health, research, and industrial positions. The suggested curriculum is given on page 82.

Botany

The Department of Botany offers three major lines of work: General Botany and Morphology, Plant Physiology, and Plant Pathology. In Plant Pathology the student is trained in plant disease control and investigation

for advisory, extension, and research work in the various agricultural colleges, experiment stations, and the United States Department of Agriculture, and in such commercial concerns as seed companies, those making spray materials, farmer cooperatives, etc. The suggested curriculum is given on page 83.

Entomology

The Department of Entomology is equipped to furnish general courses for students of biology and other subjects in the College of Arts and Sciences as well as to train students for careers in research, teaching, or control work in the field of professional Entomology.

Two courses offered by the Department, Ent. 1 and Ent. 5s, have been organized particularly to meet the needs of students in the College of Arts and Sciences. Several other courses will serve to strengthen the program of students with a major in the biological sciences. In view of the fact that nearly 80% of all known species of animals in the world are insects, it is essential that the students of biology, particularly Zoology, elect some work in Entomology.

Genetics

The courses in Genetics are designed to provide training in the principles of heredity and genetics for those interested in plant and animal breeding and in eugenics.

Zoology

The Zoology Department offers courses designed to train students for service in the biological bureaus of the United States Government and in the biological departments of the various states. Emphasis is placed on morphology, physiology, and marine biology. Instruction and opportunities for original investigation in the latter are supplemented by the research facilities and courses of instruction offered at the Chesapeake Biological Laboratory, a description of which is found on page 239.

Suggested Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Invertebrate Morphology (Zool. 3f).....	4	—
Comparative Vertebrate Morphology (Zool. 4s).....	—	4
General Botany (Bot. 1f and 2s).....	4	4
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
French or German (French 1y or German 1y).....	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Freshman Lectures	—	—
	16	16

	Semester	
	I	II
<i>Sophomore Year</i>		
Animal Histology (Zool. 12f).....	3	—
Vetebrate Embryology (Zool. 20s).....	—	3
General Chemistry (Chem. 1y).....	4	4
Survey and Composition II (Eng. 2f and 3s).....	3	3
French or German (French 3y or German 3y).....	3	3
College Algebra and Analytic Geometry (Math. 8f or 21f and 22s)	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	18	18
<i>Junior Year</i>		
Mammalian Anatomy (Zool. 101f).....	3	—
Animal Geography (Zool. 108f).....	3	—
Animal Genetics (Zool. 120s).....	—	3
General Physics (Phys. 1y).....	4	4
Electives	5	8
	—	—
	15	15
<i>Senior Year</i>		
Journal Club (Zool. 106y).....	1	1
Journal Animal Physiology (Zool. 103f and s).....	3	3
Electives	11	11
	—	—
	15	15

GENERAL BIOLOGICAL SCIENCES

A curriculum has been prepared for students who are interested in biology but whose interests are not centralized in any one of the biological sciences. The courses as outlined familiarize the student with the general principles and methods of each of the biological sciences.

By the proper selection of courses during the junior and senior years a student may concentrate his work sufficiently in any one of the fields of study to be able to continue in graduate work in that field.

Requirements

A major in general biological sciences shall consist of not less than 45 credits in the biological sciences, of which no fewer than 16 credits must be acquired in courses for advanced undergraduates and graduates.

Suggested Curriculum

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
French or German (French 1y or German 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
General Chemistry (Chem. 1y).....	4	4
General Botany (Bot. 1f).....	4	—
General Zoology (Zool. 1s).....	—	4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	—	—
	16	16
<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f and 3s).....	3	3
College Algebra and Analytic Geometry (Math. 8f or 21f and 22s).....	3	3
French or German (French 3y or German 3y).....	3	3
Introductory Entomology (Ent. 1f).....	3	—
General Bacteriology (Bact. 1s).....	—	4
Electives (Sciences).....	4	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	18	18
<i>Junior Year</i>		
General Physics (Phys. 1y).....	4	4
Electives (Social Sciences).....	3	3
Electives (Botany and Zoology).....	4	4
Electives (Entomology and Bacteriology).....	4	4
	—	—
	15	15
<i>Senior Year</i>		
Electives (Social Sciences).....	3	3
Electives (Biological Sciences).....	9	9
Electives.....	3	3
	—	—
	15	15

THE DIVISION OF SOCIAL SCIENCES

T. B. MANNY, *Chairman.*

The Division of Social Sciences includes the departments of Economics, History, Political Science, Psychology, and Sociology.

Modern man depends increasingly upon a vast army of people to supply his needs and to cater to his many desires. In return, he is expected to perform some useful function for others. A knowledge of how this complicated civilization has grown up; of man's varied experiments in controlling himself through government and otherwise; of the organization and functioning of the business world; of the causes, extent, and attempts to control such conditions as poverty, crime, delinquency, unemployment, depressions, inter-racial conflicts, family disorganization, and the like is necessary for the exercise of intelligent citizenship in a democracy. Moreover, this information, to be effectively applied, demands considerable knowledge of man's mental processes and the nature of human behavior. All students graduating from the College of Arts and Sciences are required to acquire at least twelve credits in this Division, including one year of history. Students in most of the other colleges of the University of Maryland are required to take about the same minimum amount of work in this Division.

As specific training for occupations, the courses of study in the division offer varied opportunities. For example, the Department of Economics provides training for persons seeking careers in the business world. The Department of Political Science offers the first three years of a combined course in arts and law, and also provides training in public administration, a growing field of government activity. The Department of Psychology offers several courses intended for persons interested in personnel work. The Department of Sociology provides an undergraduate course of study preparatory to taking professional training in social work, and also provides courses meeting the academic requirements demanded by civil service examinations for some of the positions known as social science analyst and junior social worker. All five departments offer subject matter courses geared in with the teacher-training program of the College of Education.

Each department in this division offers graduate work leading to the degree of Master of Arts or Master of Science. Most of the departments provide sufficient graduate work for obtaining the degree of Doctor of Philosophy. Increasingly, persons preparing to teach in high schools and colleges find it necessary to take at least one year of graduate work. Many academic positions now require the degree of Doctor of Philosophy as a prerequisite. Likewise, the more important research positions in the social sciences, both under governmental and private auspices, are more and more demanding advanced degrees on the part of candidates for such work.

The descriptions of courses listed under each department give additional evidence of the fields covered and the type of training provided.

Requirements for Graduation

1. University Requirements—See page 53.
2. College of Arts and Sciences Requirements—See page 98.
3. Major and Minor Requirements—See page 98.

Major and Minor

Fields of Study

Economics
History
Political Science

Psychology
Sociology

In selecting a major or a minor, the student must have acquired twelve credits in fundamental courses in the field chosen, or in a closely related field satisfactory to the Division, with an average grade of at least C, before credit will be allowed towards the completion of major or minor requirements.

With the establishment of the College of Commerce, students seeking primarily a vocational training in business administration will transfer to that college and meet the requirements specified there. Those wishing a major in economics as a part of a liberal education will continue to meet the major or minor requirements of the College of Arts and Sciences. A student enrolled in the College of Arts and Sciences may take any course in general or applied economics (Economics or Business Administration) for which he has the prerequisites as a part of a major or minor; but he may not take both a major and a minor in such subjects.*

COMBINED PROGRAM IN ARTS AND LAW

The School of Law of the University requires two years of academic credit for admission to the school, or sixty semester hours of college credit.

The University offers a combined program in Arts and Law, leading to the degrees of Bachelor of Arts and Bachelor of Laws. Students pursuing this combined program will spend the first three years in the College of Arts and Sciences at College Park. During this period they will complete the prescribed curriculum in prelegal studies as outlined below, and must complete the Requirements for Graduation, as indicated on page 98. If students enter the combined program with advanced standing, at least the third full year's work must be completed in residence at College Park. Upon the successful completion of one year of full-time law courses in the School of Law in Baltimore, the degree of Bachelor of Arts may be

*Adjustment may be made, however, for students registered for a combined major and minor in economics and business administration prior to June 1, 1938.

awarded on the recommendation of the Dean of the School of Law. The degree of Bachelor of Laws will be awarded upon the completion of the combined program.

The Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Science or Mathematics	4-3	4-3
History of England and Greater Britain (H. 3y).....	3	3
Introduction to the Social Sciences (Soc. Sci. 1y).....	3	3
Foreign Language	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Freshman Lectures	—	—
	16-17	16-17

Sophomore Year

Expository Writing (Eng. 5f and 6s).....	2	2
Principles of Economics (Econ. 51f and 52s).....	3	3
American History (H. 2y).....	3	3
American National Government (Pol. Sci. 1f).....	3	—
State and Local Government (Pol. Sci. 4s).....	—	3
Introduction to Psychology (Psych. 1s).....	—	3
Reading and Speaking (Speech 1y).....	1	1
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Electives	3	—
	17	17

Junior Year

Electives, including the completion of the College of Arts and Sciences Requirements for Graduation as outlined on page 98.

Senior Year

First year of regular law course.

COLLEGE OF COMMERCE

W. MACKENZIE STEVENS, *Dean.*

The University of Maryland is in an unusually favorable location for students of economics and commerce; for downtown Washington is only twenty-four minutes away in one direction, while the Baltimore business district is less than an hour in the other,—both cities with frequent transportation services to the University gates. Special arrangements are made to study commercial, manufacturing, exporting, and importing facilities and methods in Baltimore; and every assistance is given qualified students who wish to obtain a first hand glimpse of the far-flung economic activities of the National Government or utilize the libraries, government departments, and other facilities provided in Washington.

The College of Commerce provides professional training in economics and business administration for those who plan to become executives, teachers, or investigators in commercial, industrial, agricultural, or governmental economic enterprises.

While the curricula offered are technical and vocational, all require a thorough basic training in mathematics, statistics, English, and speech. The courses required in these fields are tool subjects needed for proper analysis, explanation, and interpretation of modern economic data.

Liberal allowance in every curriculum is made for other social sciences or for purely cultural non-vocational subjects, in order that students may acquire the breadth of vision needed by a present day economist, agricultural leader, or business executive.

The University offers a selection of courses in each of the following seven fields of general and applied economics: General Economics, Agricultural Economics, Accounting, Finance, Marketing, Trade and Transportation, and Organization and Management.

Subject to the group and curricula requirements described subsequently, a student may, with the advice of his faculty adviser, elect individual courses from any or all of these groups in accordance with his needs.

Several standardized curricula are offered for the guidance of students in the selection of courses. Each of these is designed to provide the familiarity with essentials of the various fields of general or applied economics that are necessary for further study or specialization, and to provide the combination of courses most likely to be useful in the particular vocation indicated. Combinations to fit other vocational needs can be worked out by a different selection of courses in the junior and senior years.

CURRICULUM IN GENERAL BUSINESS

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition (Eng. 1y).....	3	3
General Mathematics for Students of Economics (Math 20y)...	3	3
Economic Geography (T. and T. 1f).....	3	—
Development of Commerce and Industry (T. and T. 4s).....	—	3
Reading and Speaking (Speech 1y).....	1	1
*Foreign Language, Political Science, or elective.....	3	3
*Science	3-4	3-4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y, or 2y and 4y).....	1	1
Total	17-18	17-18
<i>Sophomore Year</i>		
English: Expository Writing (Eng. 5f).....	2	—
Business English (Eng. 4s).....	—	3
Statistics: Elements of Statistics (G. and S. 14f).....	3	—
Economic Statistics (G. and S. 15s).....	—	3
Principles of Economics (Econ. 51f, 52s).....	3	3
Money and Credit (Finance 51s).....	—	2
Principles of Accounting (Acct. 51f, 52s).....	4	4
Psychology for Students of Commerce (Psych. 4f).....	3	—
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y, or 6y and 8y).....	2	2
Total	17	17
<i>Junior Year</i>		
Business Law (O. and M. 101f and 102s).....	3	3
Corporation Finance (Finance 111f).....	3	—
Principles of Marketing (Mkt. 101f).....	3	—
Industrial Management (O. and M. 121s).....	—	3
Advanced Accounting (Acct. 101f and 102s).....	3	3
Electives. (See Group Requirements.).....	3	6
Total	15	15
<i>Senior Year</i>		
Investments (Finance 115f).....	3	—
Financial Analysis and Control (Finance 199s).....	—	3
Electives. (See Group Requirements).....	12	12
Total	15	15

* See Group Requirements.

CURRICULUM IN ACCOUNTING

Requirements for the freshman and sophomore years are the same as in the General Business curriculum, except that Economic Geography (T. and T. 1f) and Development of Commerce and Industry (T. and T. 4s) are not required, though they may be elected.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Junior Year</i>		
Business Law (O. and M. 101f and 102s).....	3	3
Corporation Finance (Finance 111f).....	3	—
Advanced Accounting (Acct. 101f and 102s).....	3	3
Cost Accounting (Acct. 121f and 122s).....	2	2
Principles of Marketing (Mkt. 101f).....	3	—
Industrial Management (O. and M. 121s).....	—	3
Speech Elective	1	1
†Electives in Arts and Sciences.....	—	3
Total	15	15
<i>Senior Year</i>		
Auditing Theory and Practice (Acct. 171f and 172s).....	2	2
*Income Tax Procedure (Acct. 161f).....	3	—
Specialized Accounting (Acct. 181f and 182s).....	3	3
*Advanced Business Law (O. and M. 103f).....	2	—
Investments (Finance 115f).....	3	—
Financial Analysis and Control (Finance 199s).....	—	3
*C. P. A. Problems (Acct. 186s).....	—	3
†Electives in Arts and Sciences.....	2	4
Total	15	15

* The curriculum in accountancy is intended primarily for students who plan to prepare for a career in public accounting. Those who do not plan to enter public practice may, with the consent of the professor of accounting, substitute other courses for Acct. 161f, Acct. 186s, and O. and M. 103f.

† All electives should be taken in liberal arts subjects.

CURRICULUM IN FINANCE

The freshman and sophomore years are the same as in the General Business curriculum.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Junior Year</i>		
Business Law (O. and M. 101f and 102s).....	3	3
Corporation Finance (Finance 111f).....	3	—
Advanced Accounting (Acct. 101f and 102s).....	3	3
Banking Principles and Practices (Finance 121s).....	—	3
Elect twelve semester hours from the following:	<i>I</i>	<i>II</i>
Public Finance (Finance 106f).....	3	—
Economics of Cooperative Organization (Econ. 161s)	—	3
Credits and Collections (Finance 125f).....	3	—
Insurance (Finance 141f).....	3	—
Real Estate (Finance 151s).....	—	3
Land Economics (A. E. 111f).....	3	—
Agricultural Finance (A. E. 104s).....	—	3
Consumer Financing (Finance 105f).....	3	—
Stock and Commodity Exchanges (Finance 118f)	3	—
Investment Banking (Finance 116s).....	—	3
International Finance (Finance 129s).....	—	3
Total	15	15
<i>Senior Year</i>		
Investments (Finance 115f).....	3	—
Financial Analysis and Control (Finance 199s).....	—	3
Electives. (See Group Requirements).....	12	12
Total	15	15

CURRICULUM IN MARKETING AND SALES ADMINISTRATION

The freshman and sophomore years are the same as in the General Business curriculum.

	<i>Junior Year</i>		<i>Semester</i>	
	<i>I</i>	<i>II</i>	<i>I</i>	<i>II</i>
Corporation Finance (Finance 111f).....			3	—
Economics of Cooperative Organization (Econ. 161s).....			—	3
Principles of Marketing (Mkt. 101f).....			3	—
Salesmanship and Salesmanagement (Mkt. 105s).....			—	3
Principles of Advertising (Mkt. 109f).....			3	—
Elect fifteen semester hours from the following:	<i>I</i>	<i>II</i>	6	9
Insurance (Finance 141f).....	3	—		
Real Estate (Finance 151s).....	—	3		
Land Economics (A. E. 111f).....	3	—		
Principles of Foreign Trade (T. and T. 101f).....	3	—		
Technique of Export and Import Trade (T. and T. 121s).....	—	3		
Transportation (T. and T. 111f).....	3	—		
Retail Store Management and Merchandising (Mkt. 119s).....	—	3		
Credits and Collections (Finance 125f).....	3	—		
Purchasing Technique (Mkt. 115s).....	—	3		
Economics of Consumption (Econ. 136s).....	—	3		
Consumer Financing (Finance 105f).....	3	—		
Marketing of Farm Products (A. E. 102s).....	—	3		
Food Products Inspection (A. E. 105s).....	—	3		
Psychology in Advertising and Selling (Psych. 141s).....	—	3		
Psychological Problems in Market Research (Psych. 140f).....	3	—		
Total			15	15
<i>Senior Year</i>				
Business Law (O. and M. 101f and 102s).....			3	3
Financial Analysis and Control (Finance 199s).....			—	3
Marketing Research and Market Policies (Mkt. 199s).....			—	3
Electives. (See Group Requirements.).....			12	6
Total			15	15

The list of potential electives for students interested in special phases of advertising or marketing is too great for inclusion here. Advertising students may wish to elect courses in art in the College of Arts and Sciences, or courses in design, still life, figure sketching, and costume design from the College of Home Economics, for example. Those interested in the marketing and installation of mechanical or electrical equipment will wish to elect a number of courses in the College of Engineering. Persons plan-

ning to engage in the marketing of agricultural products may choose courses in the College of Agriculture—some of the nine courses in the department of Dairy Husbandry concerned with the processing and marketing of milk, for instance. Students interested in the garment trade and in certain classes of retailing may find desirable some of the courses in Home Economics on textiles and clothing.

CURRICULUM IN AGRICULTURAL ECONOMICS*

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Freshman Year</i>		
Survey and Composition (Eng. 1y).....	3	3
General Mathematics for Students of Economics (Math. 20y)...	3	3
Agricultural Industry and Resources (A. E. 1f).....	3	—
Farm Organization (A. E. 2s).....	—	3
Biology (Bot. 1f and Zool. 1s, or Zool. 2f and Bot. 3s), Geology (Geol. 1f), or Foreign Language.....	3-4	3-4
General or Introductory Chemistry (Chem. 1y or 3y).....	4-3	4-3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y, or 2y and 4y).....	1	1
Total	17-18	17-18
<i>Sophomore Year</i>		
Expository Writing (Eng. 5f and 6s).....	2	2
Reading and Speaking (Speech 1y).....	1	1
Statistics: Elements of Statistics (G. and S. 14f).....	3	—
Economic Statistics (G. and S. 15s).....	—	3
Principles of Economics (Econ. 51f and 52s).....	3	3
Money and Credit (Finance 51s).....	—	2
Principles of Accounting (Acct. 51f and 52s).....	4	4
Agriculture Elective	2-3	—
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y, or 6y and 8y).....	2	2
Total	17-18	17
<i>Junior Year</i>		
Agricultural Economics (A. E. 100f).....	3	—
Marketing of Farm Products (A. E. 102s).....	—	3
Business Law (O. and M. 101f and 102s).....	3	3
Transportation (T. and T. 111f).....	3	—
Economics of Cooperative Organization (Econ. 161s).....	—	3
Corporation Finance (Finance 111f).....	3	—
Agricultural Finance (A. E. 104s).....	—	3
Land Economics (A. E. 111f).....	3	—
Prices (A. E. 106s).....	—	3
Total	15	15

* Students registered in this curriculum should satisfy the Professor of Agricultural Economics that they have had adequate farm experience before entering the junior year.

Senior Year	Semester	
	I	II
Cooperation in Agriculture (A. E. 103f).....	3	—
Financial Analysis and Control (Finance 199s).....	—	3
Farm Management (A. E. 108f).....	3	—
Contemporary Economic Theory (Econ. 191s).....	—	3
Economics of Consumption (Econ. 136s).....	—	3
Electives	10	7
Total	—	—
	16	16

COOPERATIVE ORGANIZATION AND ADMINISTRATION

Cooperative organizations among farmers, consumers, and business men are taking an increasingly important part in modern economic life. The managerial problems of cooperatives include not only most of those arising in private enterprises in similar kinds of business, but also additional problems brought about by important differences in ownership relations between the two types of business. The form of ownership and control and the objectives of a cooperative are different from those of its private competitor to such a degree that training and experience suitable for executive responsibility in a private business is not adequate for cooperative leadership.

A student intending to prepare himself for positions with cooperative enterprises should select courses in the junior and senior years so as to

1. Obtain a well-balanced general training in management, as illustrated in the General Business curricula;
2. Study cooperative theory and practice; for instance, Economics of Cooperative Organization (Econ. 161s), Cooperation in Agriculture (A. E. 103s), or Internship in Cooperation (O. and M. 149); and
3. Acquire a reasonably adequate technical knowledge of the field with which he plans to associate himself. For instance, a person intending to work with farmer cooperatives should have some courses in agriculture; a student of consumer cooperation should elect Economics of Consumption (Econ. 136s), Retail Store Management and Merchandising (Mkt. 119s), and Purchasing Technique (Mkt. 115s); and a person intending to specialize in the credit union field should elect several courses in finance.

Washington is the national headquarters of the agricultural cooperatives of this country; and arrangements have been made for properly equipped students to have cooperative experience by means of close working arrangements maintained with the National Cooperative Council.

Unusual facilities for the study of cooperatives of all types are also available in the government agencies and libraries of Washington, and special arrangements will be made for properly qualified students to make the most of the opportunity for special study thus offered.

COMBINED PROGRAM IN COMMERCE AND LAW

Students who wish to combine commercial and legal studies to obtain both Bachelor of Science and Bachelor of Laws degrees may do so by selecting their courses in such a way as to comply with all of the group and specific requirements of the College of Commerce in three years, and then completing the 126 hours required for graduation from this college by courses taken in the University of Maryland School of Law at Baltimore.

During the first three years, students will be registered in the College of Commerce. In the fourth year and thereafter, they will be registered in the School of Law; but they must forward copies of their study lists to the office of the Dean of Commerce at the beginning of each semester of the fourth year. At the end of the fourth year, the degree of Bachelor of Science may be awarded in the College of Commerce upon the recommendation of the Dean of the Law School. The degree of Bachelor of Laws will be awarded upon satisfactory completion of the entire program.

GROUP REQUIREMENTS FOR GRADUATION

A student who has met all entrance requirements may be granted the degree of Bachelor of Science upon the satisfactory completion of not less than 120 semester hours exclusive of physical education and military instruction.

Of these 120 semester hours, not less than 48 must be in general or applied economics, and not less than 48 in subjects other than economics. The following non-economics subjects are required of all students:

1. English and Speech—fourteen semester hours,
2. Mathematics and Statistics—twelve semester hours,
3. Military Science or Physical Education—six semester hours,
4. Science—six to eight semester hours. Because of the importance of chemistry in modern industry, every student (unless registered in the commerce-law program) who is not specifically excused by the Dean, will be required to take one year-course in chemistry. Students who have completed an approved high school chemistry course with good grades, or who can demonstrate some other adequate reason for doing so, may substitute other natural sciences.
5. Foreign Language and Political Science. Freshmen will ordinarily take six hours of foreign language; but those who have completed a reasonable amount of foreign language in high school may substitute political science or an elective. Students preparing for the law degree will be expected to take six semester hours of political science and six semester hours of English or American history in place of the chemistry and foreign language requirement unless specifically excused by the Dean.

Except as otherwise indicated in the foregoing, all students must complete all of the subjects shown for the freshman and sophomore years in either the General Business or the Agricultural Economics curriculum*. The following additional courses are required in the junior or senior year: Business Law (O. and M. 101f and 102s), Corporation Finance (Finance 111f), Principles of Marketing (Mkt. 101f)†, and Financial Analysis and Control (Finance 199s).

SCHOLARSHIP REQUIREMENTS

To be eligible to enter courses ordinarily carried in the junior year, a student enrolled in the College of Commerce must have an average grade as high as C. To be awarded the baccalaureate degree from this college, he must have (1) a grade as high as C in general or applied economics courses aggregating not less than 48 semester hours, and (2) a general average grade as high as C.

ELECTIVES FROM OTHER COLLEGES

Business, agricultural, and industrial leaders now require a much broader educational background than that provided by vocational courses in economics and administration alone. Group requirements have been set up accordingly which demand that not less than 48 semester credit hours shall be from non-economics courses. A considerably larger number of semester hours than this may be elected from non-economics subjects by a student who is willing to forego a proportionate number of specialized courses in economics and business administration.

Other social sciences, such as sociology, history, political science, and applied psychology are useful in furnishing the broad background in social sciences needed by any student of economics; and these subjects tend to make him a more useful citizen. Logic, ethics, and other philosophy courses open up a new world of intellectual pleasure to the student; and training provided by such subjects in abstract thinking is also useful vocationally. Courses in music and art may serve as a welcome diversion from vocational courses; and the social and extra-curricular development that music facilitates is desirable for students of economics or business.

Commerce students should diversify their non-economic selections so as to obtain the broadest possible general education within the time at their disposal. While the freedom of choice offered through electives is sufficient to enable a student to study whatever cultural subjects or vocational techniques he needs anywhere in the University, he who wishes to elect as much as a minor in any one department outside the College of Commerce must secure the approval of the head of that department to his study list, in

* Special adjustment may be made for students with thirty or more semester hours credit in the University of Maryland prior to July 1, 1938.

† Agricultural Economics students may substitute Marketing of Agricultural Products (A. E. 102s).

order that the selections may be effectively adapted to the vocational or cultural objectives sought.

Extra-curricular activities, military instruction, and physical education beyond the curriculum outlines are recommended for students of this college whenever the physical and mental capacity of the individual student and available free time permit. Excellence in such activities often has a definite value in procuring business positions at graduation; and experience gained in this way is frequently invaluable in later life.

Additional electives above the curriculum requirements in either vocational or non-economics courses are encouraged whenever a student can demonstrate the capacity to carry additional subjects satisfactorily. Grades received in previous work will be the determining factor for decision as to extra student load in each case. Students who do not average better than C will not ordinarily be permitted to carry additional courses beyond the curriculum requirements.

COLLEGE OF EDUCATION

WILLARD S. SMALL, *Dean.*

The College of Education meets the needs of the following classes of students: (1) undergraduates preparing to teach the cultural and the vocational studies in high schools, preparatory schools, and vocational schools; (2) students who will enter higher institutions to prepare for work in specialized educational and institutional fields; (3) students preparing for educational work in the trades and industries; (4) students preparing to become home demonstrators, girls' club leaders, community recreation leaders, and (in cooperation with the Department of Sociology) social workers; (5) students whose major interest is in other fields, but who desire courses in education for their informational and cultural values; (6) graduate students preparing for teaching positions requiring the Master's degree and for positions as high school principals, elementary school principals, educational supervisors, attendance officers, and school administrators.

The Summer Session, although organically distinct from the College of Education, is administered by the Dean of the College of Education, and is in effect an administrative division of the College.

Facilities

In addition to the general facilities offered by the University, certain important supplementary facilities are available.

Supervised Teaching. Opportunity for supervised teaching under competent critic teachers is provided by arrangement with the school authorities of Prince Georges, Howard, and Montgomery Counties, and of the District of Columbia.

Observation. Observation of teaching is conducted in Washington and in nearby Maryland schools. The number, variety, and nearness of these schools provide ample and unusual opportunities for observation of actual classroom situations.

Other Facilities in Washington. The Library of Congress, the Library of the U. S. Office of Education, and the special libraries of other Government offices are accessible. The information services of the National Education Association, the American Council on Education, the U. S. Office of Education, and of other institutions, public and private, are available to students.

Requirements for Admission

The requirements for admission to the College of Education are in general the same as for the other colleges of the University. See Section I, Entrance.

Candidates for admission whose high school records are consistently low are strongly advised not to seek admission to the College of Education.

Guidance in Registration

At the time of matriculation each student is assigned to a member of the faculty who acts as the student's personal adviser. Choice of subjects the student will prepare to teach should be made not later than the beginning of the sophomore year with the advice and approval of the appropriate adviser.

It is advisable for students who purpose to teach (except Vocational Agriculture) to register in the College of Education, in order that they may have continuously the counsel and guidance of the faculty which is directly responsible for their professional preparation. It is permissible, however, for a student to register in that college which in conjunction with the College of Education offers the majority of the courses he will pursue in satisfying the requirements of the curriculum he elects.

Students in other colleges desiring to elect an education curriculum should consult with the Dean of the College of Education *at the beginning of the sophomore year* in order to plan satisfactorily their subsequent programs. Adjustments may be made as late as the beginning of the junior year. *It is practically impossible to make adjustments later than that on account of the sequence of professional subjects in the junior and senior years.*

Admission of Normal School Graduates

Graduates of the two- and three-year curricula of Maryland Normal Schools and other accredited normal schools whose records give evidence of the ability and character essential to teaching will be admitted to advanced standing and classified provisionally in appropriate classes. Graduates of the two-year normal school curriculum, in most cases, may satisfy the requirements for the degree of Bachelor of Science in Elementary Education by attendance for two full college years; graduates of the three-year curriculum, by attendance for one full college year.

Those who wish to satisfy the requirements for certification as high school teachers need more time. The amount of time required is not uniform, but depends upon the high school subjects to be taught and the individual ability of the student.

Sophomore Status

The Introduction to Teaching scheduled for the sophomore year is an orientation course. It is designed with the twofold purpose of giving students a view of the teacher's job and of testing the aptitude and fitness of students for teaching. Admission to this course is based upon the following: (1) completion of at least 30 semester hours of freshman work with an average grade as high as C; and (2) passing of series of tests which are designed to determine the student's preparation for the special demands of this course.

Junior Status

The first two years of college work are preparatory to the professional work of the junior and senior years. Students who, in the first two years, by reason of temperament, health, industry, and scholastic progress, give promise of becoming successful teachers are encouraged to continue in the curricula of the College of Education; those who, by reason of health deficiencies, of weakness in oral and written English, of unfavorable personal traits, or of scholastic deficiency, are unlikely to succeed as teachers are advised to transfer to other fields.

To be eligible for junior status a student must have completed 64 semester hours of freshman-sophomore courses with an average grade of C or better.

Professional Courses

The professional courses recognized by the State Department of Education for certification are given only in the junior and senior years. The minimum requirement for these is 16 semester hours, of which the following are prescribed: Educational Psychology, Technic of Teaching, Observation of Teaching, Special Methods, and Supervised Teaching.

To be eligible to enter the professional courses, a student must have attained junior status as defined above. Continuance in such courses will be contingent upon the student's remaining in the upper four-fifths of his class in subsequent semester revisions of class standing.

From the offerings of Education, the District of Columbia requirement of 24 semester hours of professional courses may be fully met.

Certification of High School Teachers

The State Department of Education certifies to teach in the approved high schools of the State only graduates of approved colleges who have satisfactorily fulfilled subject-matter and professional requirements. Specifically it limits certification to graduates who "rank academically in the upper four-fifths of the class and who make a grade of C or better in practice teaching."

Degrees

The degrees conferred upon students who have met the conditions prescribed for a degree in the College of Education are Bachelor of Arts and Bachelor of Science. Upon completion of 128 credits in conformity with the requirements specified under "Curricula" and in conformity with general requirements of the University, the appropriate degree will be conferred.

Curricula

The curricula of the College of Education, described in detail in the following pages, are designed to prepare high school teachers of the academic and scientific subjects, the special subjects, and the vocational subjects under the provisions of the Federal Vocational Education Acts.

The specifications for majors and minors, under "Arts and Science Education", satisfy the requirements of the State Department of Education in regard to "the number of college credits required in any two or more

subjects which are to be placed on a high school teachers' certificate." The curricula for the special subjects cover all State Department requirements. The curricula for the vocational subjects meet the objectives set up in the Federal Acts and in the interpretations of the Office of Education and of the State Board of Education. (For Agricultural Education see College of Agriculture, page 73.)

In the Arts and Science Education curriculum one may qualify for the degree either of Bachelor of Arts or Bachelor of Science, depending upon the major subject. The other curricula lead to the degree of Bachelor of Science.

The general and special requirements of each curriculum are shown in the following descriptions.

ARTS AND SCIENCE EDUCATION

Students electing this curriculum may register in the College of Education or in the College of Arts and Sciences. Students will be certified for graduation only upon fulfillment of all the requirements of this curriculum.

General Requirements

In addition to Military Science or Physical Education, required of all students in the University, the following requirements must be fulfilled by all candidates for degrees in this curriculum, normally by the end of the sophomore year:

- (1) Survey and Composition I (Eng. 1y) and Survey and Composition II (Eng. 2f and 3s), 12 semester hours.
- (2) Reading and Speaking (Speech 1y), 2 semester hours.
- (3) Two years of foreign language, if the student enters with less than three years of foreign language; one year, if he enters with three years. No foreign language is required of students who enter with four or more years of foreign language.
- (4) Twelve semester hours of history and the social sciences.
- (5) Twelve hours of natural science or of natural science and mathematics.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
*Foreign Language	3	3
Science (Biological or Physical).....	3-4	3-4
From the following groups:		
History, Social Sciences, Mathematics, Science, Foreign Language, Music, Art, Physical Education.....	4-3	4-3
	—	—
	15-16	15-16

*Except students entering with four or more units of language.

	Semester	
	I	II
<i>Sophomore Year</i>		
(See "Sophomore Status," p. 133.)		
Introduction to Teaching (Ed. 2f and 3s).....	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Survey and Composition II (Eng. 2f and 3s).....	3	3
†Foreign Language	3	3
Electives	7-8	7-8
	—	—
	17-18	17-18

<i>Junior Year</i>		
(See "Professional Courses," p. 134.)		
Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (Ed. 5 s).....	—	2
Observation of Teaching (Ed. 6 s).....	—	1
Special Methods (Ed. 120 s; 122 s; 124 s; 126 s; 128 s).....	—	2
Electives	13	11
	—	—
	16	16

<i>Senior Year</i>		
‡Supervised Teaching (Ed. 139f or s).....	2 or	2
The Junior High School (Ed. 110f).....	2	—
	<i>or</i>	
Principles of Secondary Education (Ed. 103 s).....	—	3
Electives	12-14	10-12
	—	—
	16	15

Specific Requirements

Each student is expected to prepare for the teaching of at least two high school subjects in accordance with the certification requirements of the State Department of Education (By-law 30 revised). These are designated as major and minor subjects, with a requirement of from 28 to 36 semester hours of credit for a major and from 20 to 24 hours for a minor. If it is deemed advisable for a student to prepare for the teaching of three high school subjects, the requirement for a major may be modified at the discretion of the Dean to permit the pursuit of three subjects to the extent required for State certification. Semester hour requirements are detailed below.

No student who has not met all previous requirements will be permitted to do practice teaching.

†For students entering with less than three units of language.
‡See Course description, p. 260.

<i>English.</i> A major in English requires 36 semester hours as follows:	
Survey and Composition I and II.....	12 semester hours
Shakespeare (Eng. 11f or 12s).....	3 semester hours
American Literature	6 semester hours
Electives	15 semester hours
	—
Total	36

A minor in English requires 26 semester hours. It includes the 21 hours prescribed for the major and 5 hours of electives.

*Electives must be chosen from a selected list of courses with the advice and approval of the instructor in "English in the High School."

Survey and Composition I and II must be completed by the end of the junior year.

History and Social Sciences. For a major in this group 30 semester hours are required, as follows:

History	18 semester hours
Economics or Sociology.....	6 semester hours
Electives	6 semester hours

For a minor, the same requirements less the electives.

Required courses in History are as follows: Modern European History, American History, and Ancient History. These must be completed by the end of the junior year.

Modern Languages. For a major in Modern Languages 30 semester hours are required; for a minor 24 semester hours.

At least 18 hours of a major or minor in modern language must be completed by the end of the junior year.

A major or minor in French must include French 2s, 9y, 10y, and at least one course of the 100 group.

A major or minor in Spanish must include Spanish 2s, 5s, 6y, and at least one course of the 100 group.

A major or minor in German must include German 2s, 5s, 10y, and at least one course of the 100 group.

Mathematics. Twenty-eight semester hours are required for the major. The following sequence is recommended: Math. 21f, Math. 18y, Math. 7f, and Math. 10s in the freshman year; Math. 19y, Math. 22s in the sophomore year; Math. 23y in the junior year; Math. 111f, Math. 112s, Math. 151f, Math. 122s in the senior year.

For the minor the following course sequence is advised: Math. 21f, Math. 7f, Math. 10s in the freshman year; Math. 22s in the sophomore

* See paragraphs on special requirements for major in English in Section III on English Language and Literature, p. 282.

year; Math. 23y in the junior year; Math. 111f, Math. 122s in the senior year.

Students who pass an examination in solid geometry or trigonometry may be excused from Math. 7f or Math. 10s, respectively. For all majors and minors in mathematics, Ed. 128s and Ed. 135f are indicated.

Mathematics-Physics. This major consists of 18 hours in mathematics and 18 hours in physics. The normal sequence of courses is Math. 21f, Math. 7f, Math. 10s, Math. 22s, Math. 23y, Math. 111f, Math. 122s, and Phys. 1y, Phys. 103y.

Students who pass an examination in solid geometry or trigonometry may be excused from Math. 7f or Math. 10s, respectively.

Chemistry 1y is required as a supporting course to this major. Ed. 128s, Ed. 135f, and Ed. 137s should be taken.

If a minor in general science is offered in connection with this major, a total of 38 hours in the natural sciences should be presented.

Science. In general science, a major and a minor are offered consisting of 34 and 28 hours respectively, each including elementary courses in chemistry, physics, and biology (zoology and botany). Minors of twenty semester hours are offered in chemistry, physics, and biological science. A minor in biology must include the basic courses in botany and zoology.

A minor in chemistry must be supported by the elementary course in physics. Minors in physics and biology must be supported by the elementary course in chemistry, which should be completed before the beginning of the junior year. For students whose main interest is in biological science, Ed. 126s and Ed. 136f are indicated, as are Ed. 126s and Ed. 137s for those who are interested chiefly in physics or chemistry.

If a major in general science is accompanied by a minor in chemistry, physics, or biology, the same credits may be counted towards both, provided that they number not less than 52 semester hours in natural science.

AGRICULTURAL EDUCATION

(See College of Agriculture, page 73.)

COMMERCIAL EDUCATION

The entrance requirements for the curriculum in Commercial Education are as follows: English 3 units; Algebra 1 unit; Science 1 unit; History 1 unit; Stenography 2 units; Typewriting 1 unit; Bookkeeping 1 unit; elective 5 units.

The Commercial Education curriculum includes a solid foundation of economics, social science and history, accounting and business administration subjects, adequate courses in methods of teaching commercial subjects, and supervised teaching.

The number of electives is large enough to enable a student to prepare for teaching some other subject in addition to the commercial subjects.

The curriculum does not include any college courses in shorthand and typewriting for the improvement of skill in these arts. Any student desiring to become a candidate for the bachelor's degree in commercial education must meet the speed and accuracy requirements in shorthand and typewriting and transcription necessary to become a teacher of commercial subjects either by work in commercial offices during the summer or by such other means as may be practicable for improving his skill and accuracy.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Introduction to the Social Sciences (Soc. Sci. 1y).....	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Reading and Speaking (Speech 1y).....	1	1
Economic Geography (T. and T. 1f).....	3	—
American National Government (Pol. Sci. 1s).....	—	3
Science (Biological or Physical).....	3	3
One from the following groups:		
History, Mathematics, Literature, Foreign Language.....	3	3
	17	17
<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f and 3s).....	3	3
American History (H. 2y).....	3	3
Introduction to Teaching (Ed. 2f and 3 s).....	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Principles of Economics (Econ. 51f and 52s).....	3	3
Money and Credit (Finance 51s).....	—	2
Electives	4	2
	17	17
<i>Junior Year</i>		
Elements of Business (O. and M. 51f).....	2	—
Principles of Accounting (Acct. 51f and 52s).....	4	4
*Banking Principles and Practice (Finance 21s).....	—	3
Elements of Statistics (G. and S. 14f).....	3	—
Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (Ed. 5 s).....	—	2
Observation of Teaching (Ed. 6s).....	—	1
Electives	3	5
	15	15

*Note: Now a sophomore, second semester, course, preparatory to Banking. Cannot be taken concurrently.

<i>Senior Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Business Law (O. and M. f and s).....	3	3
Commercial Subjects in the High School (Ed. 150f and 151s).....	2	2
Supervised Teaching of High School Subjects (Ed. 139 s).....	—	2
The Junior High School (Ed. 110f).....	2	—
<i>or</i>		
Principles of Secondary Education (Ed. 103s).....	—	3
Electives	8-10	5-8
	15	15

HOME ECONOMICS EDUCATION

The Home Economics Education curriculum is for students who are preparing to teach vocational or general home economics or to engage in any phase of home economics work which requires a knowledge of teaching methods. It includes studies in all phases of home economics and the allied sciences, with professional training for teaching these subjects. Electives may be chosen from other colleges.

Opportunity for additional training and practice is given through directed teaching, home management hours, and special work and observation of children in the University Nursery School.

Students electing this curriculum may register in the College of Education or the College of Home Economics. Students will be certified for graduation only upon fulfillment of all the requirements of this curriculum.

Home Economics Education

<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
General Chemistry (Chem. 1y).....	4	4
Textiles (H. E. 71f).....	3	—
Design (H. E. 21s).....	—	3
Reading and Speaking (Speech 1y).....	1	1
Physical Education (Phys. Ed. 2y and 4y).....	1	1
Freshman Lecture (H. E. 1y).....	1	1
Electives	2	2
	15	15

<i>Sophomore Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Introduction to Teaching (Ed. 2f and 3s).....	2	2
Costume Design (H. E. 24f).....	3	—
Clothing (H. E. 11s).....	—	3
Foods (H. E. 31y).....	3	3
Elementary Physics (Phys. 3y).....	3	3
Physical Education (Phys. Ed. 6y and 8y).....	2	2
Principles of Sociology (Soc. 1f).....	3	—
Introductory Botany (Bot. 1s).....	—	3
Elements of Organic Chemistry (Chem. 12Ay).....	2	2
	18	18

Junior Year

Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (H. E. Ed. 5s).....	—	2
Observation of Teaching (H. E. Ed. 6s).....	—	1
Household Bacteriology (Bact. 3s).....	—	3
Nutrition (H. E. 131f).....	3	—
Food Buying and Meal Service (H. E. 137s).....	—	3
Management of the Home (H. E. 141f or 142s).....	3	3
Advanced Clothing (H. E. 111f).....	3	—
Human Anatomy and Physiology (Zool. 15f).....	4	—
Demonstrations (H. E. 133s).....	2	2
Fundamentals of Economics (Econ. 57s).....	—	3
	16	17

Senior Year

Child Study (H. E. Ed. 102f).....	4	—
Practice in Management of the Home (H. E. 143f or s).....	—	4
Teaching Secondary Vocational Home Economics (H. E. Ed. 103f)	4	—
History of Architecture and Interior Decoration (H. E. 121f and 122s)	3	3
Problems in Teaching Home Economics (H. E. Ed. 106s).....	—	1
Principles of Secondary Education (Ed. 103s).....	—	3
Electives	3	4
	14	15

Electives should include one course each in History and English.

INDUSTRIAL EDUCATION

The program of studies in Industrial Education provides: (1) a four-year curriculum leading to the degree of Bachelor of Science in Industrial

Education; (2) a program of professional courses to prepare teachers to meet the certification requirements in vocational and occupational schools; (3) a program of courses for the improvement of teachers in service.

I. Four-year Curriculum in Industrial Education.

The entrance requirements are the same as for the other curricula offered in the University. (See page 45.) Experience in some trade or industrial activity will benefit students preparing to teach industrial subjects.

This curriculum is designed to prepare both trade and industrial shop and related teachers, and teachers of industrial arts. There is sufficient latitude of electives so that a student may also meet certification requirements in some other high school subject.

Students entering an Industrial Education curriculum must register in the College of Education.

This curriculum, with limited variations according to the needs of the two groups, is so administered as to provide: (A) a four-year pre-service curriculum for students in residence; (B) a four-year curriculum for teachers in service.

A. Curriculum for Students in Residence

	Semester	
	I	II
<i>Freshman Year</i>		
Elements of Drawing and Design (Ind. Ed. 1f and 2s).....	2	2
Elementary Woodworking (Ind. Ed. 3f).....	3	—
Advanced Woodworking (Ind. Ed. 4s).....	—	3
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y).....	1	1
Mathematics (Math. 8f and 10s).....	3	3
History or Social Science.....	3	3
	—	—
	16	16
<i>Sophomore Year</i>		
Sheet Metal (Ind. Ed. 5f).....	2	—
Art Metal (Ind. Ed. 6s).....	—	2
Mechanical Drawing (Ind. Ed. 7y).....	1	1
Electricity (Ind. Ed. 8y).....	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y).....	2	2
Mathematics (Math. 18y).....	1	1
Survey and Composition II (Eng. 2f and 3s).....	3	3
Chemistry (Chem. 3y or 1y).....	3-4	3-4
Introduction to Teaching (Ed. 2f and 3s).....	2	2
	—	—
	16-17	16-17

	Semester	
	I	II
<i>Junior Year</i>		
Elementary Machine Shop (Ind. Ed. 9f).....	2	—
Cold Metal Work (Ind. Ed. 10s).....	—	2
Foundry (Ind. Ed. 11f).....	2	—
Mechanical Drawing (Ind. Ed. 12y).....	1	1
Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (Ed. 5s).....	—	2
Observation of Teaching (Ed. 6s).....	—	1
Industrial Education in the High School (Ind. Ed. 162s).....	—	2
Elementary Physics (Phys. 3y).....	3	3
History or Social Science.....	3	3
Electives.....	3	3
	—	—
	17	17

Senior Year

Advanced Machine Shop (Ind. Ed. 13f).....	2	—
Shop Organization and Management (Ind. Ed. 164s).....	—	2
Educational Measurements (Ed. 105f).....	3	—
Supervised Teaching of High School Subjects: Industrial Education (Ed. 139 f or s).....	2 or	2
Principles of Secondary Education (Ed. 103s).....	—	3
Occupations, Guidance, and Placement (Ed. 163f).....	2	—
Evolution of Modern Industry (Ind. Ed. 165f and 166s).....	2	2
Electives.....	4-6	4-8
	—	—
	16	16

B. Curriculum for Teachers in Service

The requirements in this curriculum for the B. S. degree in Industrial Education are quantitatively the same as for Curriculum A, except that the military-physical training and speech requirements are waived. In summary the distribution is approximately as follows:

English.....	12 semester hours
History and the Social Sciences.....	16 semester hours
Mathematics and Science.....	20 semester hours
Shop and Drawing.....	30 semester hours
Education.....	24 semester hours
Electives.....	26 semester hours
	—
Total.....	128 semester hours

In the mathematics and science group, and in the history and social science group, there is reasonable latitude for individual choice, but courses in mathematics as related to shopwork and courses in American history and government are required.

Program for Vocational, Occupational, and Shop Center Teachers

This curriculum is designed for persons who have had experience in some trade or industry or in the teaching of shopwork.

Applicants for admission to this curriculum must have as a minimum requirement an elementary school education or its equivalent. The curriculum is prescribed, but is administered flexibly in order that it may be adjusted to the needs of students.

To meet the needs for industrial teacher-training in Baltimore and in other industrial centers, extension courses are offered. The work of these courses deals principally with the analysis and classification of trade knowledge for instructional purposes, methods of teaching, observation and practice of teaching, psychology of trade and industrial education, and occupational information, guidance, and placement.

Completion of eight teacher-training courses which require, in general, two years of two hundred fifty-six clock hours, entitles one to a full three-year vocational teacher's certificate in the State of Maryland, and to a special diploma from the College of Education of the University of Maryland.

Courses for Teachers in Service

Courses are offered for teachers in service who are seeking to satisfy requirements for promotion.

A special announcement of the in-service courses in Baltimore is issued in August of each year. This may be obtained from the office of the Registrar either in Baltimore or in College Park.

PHYSICAL EDUCATION

The Physical Education curricula are designed to prepare teachers of physical education for the high schools and leaders for recreational programs. With the electives provided, it is possible to meet the certification requirements in other high school subjects as well as in physical education.

These curricula include separate courses for men and for women. Some of the courses are open to both men and women. (See Sec. III, pages 265-269.) Variations for men and for women are shown in the curricula outlined below.

Upon satisfactory completion of either curriculum the degree of Bachelor of Science will be conferred.

Students electing either of these curricula must register in the College of Education.

General Requirements

The general requirements are the same as for Arts and Science Education (see p. 135), except that a foreign language is not required, and twenty semester hours of science are required as scheduled.

Physical Education Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
Elements of Zoology (Zool. 2f).....	3	—
Introductory Botany (Bot. 1s).....	—	3
Introduction to the Social Sciences (Soc. Sci. 1y).....	3	3
From the following groups: History, Science, Foreign Language, Mathematics, Home Economics.....	3	3
(Women)		
Personal Hygiene and Physical Activities (Phys. Ed. 2y, Phys. Ed. 4y).....	1	1
Athletics I (Phys. Ed. 18y).....	1	1
Fundamentals of Rhythm and Dance (Phys. Ed. 10y).....	1	1
(Men)		
Basic R. O. T. C. (M. I. 1y).....	1	1
Physical Activities (Phys. Ed. 1y).....	1	1
Personal and Community Hygiene (Phys. Ed. 11y).....	2	2
	—	—
	16-17	16-17
<i>Sophomore Year</i>		
Introduction to Teaching (Ed. 2f and 3s).....	2	2
Survey and Composition II (Eng. 2f and 3s).....	3	3
Elementary Physics (Phys. 3y).....	3	3
Human Anatomy and Physiology (Zool. 15f).....	4	—
General Bacteriology (Bact. 1s).....	—	4
Survey of Physical Education (Phys. Ed. 21y).....	1	1
(Women)		
Community Hygiene and Physical Activities (Phys. Ed. 6y, Phys. Ed. 8y).....	2	2
Modern Dance (Phys. Ed. 32y).....	1	1
Athletics II (Phys. Ed. 22y).....	1	1
(Men)		
Basic R. O. T. C. (M. I. 2y).....	2	2
Physical Education Practice I (Phys. Ed. 5y).....	1	1
	—	—
	16-17	16-17

	Semester	
	I	II
<i>Junior Year</i>		
Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (Ed. 5s).....	—	2
Body Mechanics (Phys. Ed. 24f).....	2	—
Physiology of Exercise (Phys. Ed. 25s).....	—	2
Theory and Function of Play (Phys. Ed. 31f).....	2	—
Observation of Teaching (Ed. 6s).....	—	1
Electives	6-7	8
(Women)		
Clogs and Athletic Dances (Phys. Ed. 28f).....	1	—
Folk Dancing (Phys. Ed. 30s).....	—	1
Games (Phys. Ed. 12f).....	1	—
Natural Gymnastics (Phys. Ed. 20s).....	—	1
First Aid (Phys. Ed. 16s).....	—	1
(Men)		
Physical Education Practice II (Phys. Ed. 7y).....	1	1
Coaching and Officiating: Men (Phys. Ed. 13y).....	1	1
Practical Dancing (Phys. Ed. 26y).....	1	1
	—	—
	16	16
<i>Senior Year</i>		
The Junior High School (Ed. 110f).....	2	—
or		
Principles of Secondary Education (Ed. 103s).....	—	3
Supervised Teaching (Ed. 139f or s).....	2 or	2
Educational Measurements (Ed. 105f).....	3	—
Teaching Health (Ed. 146s).....	—	2
Electives	3-8	5-12
(Women)		
Coaching and Officiating: Women (Phys. Ed. 34y).....	1	1
Physical Education in the High School (Ed. 142f).....	3	—
(Men)		
Physical Education Practice III (Phys. Ed. 9y).....	1	1
Leadership in Recreational Activities (Phys. Ed. 35y).....	2	2
Physical Education in the High School (Ed. 141f).....	2	—
	—	—
	15	15

	Semester	
	I	II
<i>Recreation</i>		
<i>Junior Year</i>		
Educational Psychology (Psych. 10f).....	3	—
Body Mechanics (Phys. Ed. 24f).....	2	—
Physiology of Exercise (Phys. Ed. 25s).....	—	2
Theory and Function of Play (Phys. Ed. 31f).....	2	—
Playground Management (Phys. Ed. 33s).....	—	3
Boys and Girls Clubs (Phys. Ed. 37f).....	3	—
From the following: Sociology, Economics, Music, Art.....	3-4	8
(Women)		
Clogs and Athletic Dances (Phys. Ed. 28f).....	1	—
Folk Dancing (Phys. Ed. 30s).....	—	1
Games (Phys. Ed. 12f).....	1	—
Natural Gymnastics (Phys. Ed. 20s).....	—	1
First Aid (Phys. Ed. 16s).....	—	1
(Men)		
Physical Education Practice II (Phys. Ed. 7y).....	1	1
Coaching and Officiating: Men (Phys. Ed. 13y).....	1	1
Practical Dancing (Phys. Ed. 26y).....	1	1
	—	—
	16	16
<i>Senior Year</i>		
Leadership in Recreational Activities (Phys. Ed. 35y).....	2	2
Community Recreation (Phys. Ed. 39f).....	3	—
Teaching Health (Ed. 146s).....	—	2
Methods and Practice in Recreation (Ed. 143y).....	3	3
From the following: Sociology, Economics, Music, or Art.....	6	7
(Women)		
Coaching and Officiating: Women (Phys. Ed. 34y).....	1	1
(Men)		
Physical Education Practice III (Phys. Ed. 9y).....	1	1
	—	—
	15	15

COLLEGE OF ENGINEERING

S. S. STEINBERG, *Dean.*

The primary purpose of the College of Engineering is to train young men to practice the profession of Engineering. It endeavors at the same time to equip them for their duties as citizens and for careers in public service and in industry.

The new economic conditions with which the engineering graduate will be faced when he goes into practice have emphasized the necessity for the adjustment of engineering curricula in their scope and objectives. It has become evident that greater emphasis than heretofore should be placed on the fundamentals of engineering, and that the engineer's training should include a knowledge of the sciences which deal with human relations and a familiarity with business organization and operation.

Accordingly, our engineering curricula have been revised recently to increase the time devoted to fundamentals and to non-technical subjects, which are a necessary part of the equipment of every educated man, and which are now considered essential to the proper training of engineers because of the practical application of these subjects in professional and business life. It is well recognized that an engineering training affords an efficient preparation for many callings in public and private life outside the engineering profession.

The College of Engineering includes the Departments of Chemical, Civil, Electrical, and Mechanical Engineering. In order to give the student time to choose the branch of engineering for which he is best adapted, the freshman year of the several courses is the same. Lectures and conferences are used to guide the student to make a proper selection. The courses differ only slightly in the sophomore year, but in the junior and senior years the students are directed more definitely along professional lines.

Admission Requirements

The requirements for admission to the College of Engineering are, in general, the same as elsewhere described for admission to the undergraduate departments of the University, except as to the requirements in mathematics. See Section I, Entrance.

It is possible, however, for high school graduates having the requisite number of entrance units to enter the College of Engineering without the unit of advanced algebra, or the one-half unit of solid geometry, provided such students are prepared to devote their first summer to a course in analytic geometry. The program for such students would be as follows: during the first semester, five hours a week would be devoted to making up advanced algebra and solid geometry; in the second semester, mathematics of the first semester would be scheduled, and the second semester mathe-

matics would be taken in the summer session. Thus, such students, if they passed the course, would be enabled to enter the sophomore year the next fall with their class without loss of time.

Bachelor Degrees in Engineering

Courses leading to the degree of Bachelor of Science are offered in chemical, civil, electrical, and mechanical engineering, respectively.

Master of Science in Engineering

The degree of Master of Science in Engineering may be earned by students registered in the Graduate School who hold bachelor degrees in engineering, which represent an amount of preparation and work similar to that required for bachelor degrees in the College of Engineering of the University of Maryland.

Candidates for the degree of Master of Science in Engineering are accepted in accordance with the procedure and requirements of the Graduate School, as will be found explained in the catalogue under the head of Graduate School.

Professional Degrees in Engineering

The degrees of Chemical Engineer, Civil Engineer, Electrical Engineer, and Mechanical Engineer will be granted only to graduates of the University who have obtained a bachelor's degree in engineering. The applicant must satisfy the following conditions:

1. He shall have engaged successfully in acceptable engineering work not less than four years after graduation.
2. He must be considered eligible by a committee composed of the Dean of the College of Engineering and the heads of the Departments of Chemical, Civil, Electrical, and Mechanical Engineering.
3. His registration for a degree must be approved at least twelve months prior to the date on which the degree is to be conferred. He shall present with his application a complete report of his engineering experience and an outline of his proposed thesis.
4. He shall present a satisfactory thesis on an approved subject.

Equipment

The Engineering buildings are provided with lecture-rooms, recitation-rooms, drafting-rooms, laboratories, and shops for various phases of engineering work.

Drafting-Rooms. The drafting rooms are fully equipped for practical work. The engineering student must provide himself with an approved drawing outfit, material, and books, the cost of which during the freshman year amounts to \$16.00 to \$20.00.

Chemical Engineering Laboratories. For instruction and research, the Chemical Engineering Department maintains the following laboratories: (1) General Testing and Control, (2) Unit Operations, (3) Cooperative Research, (4) Graduate Research.

In the General Testing and Control laboratory there is available complete equipment for the chemical and physical testing of water, gases, coal, petroleum, and their by-products, and general industrial chemicals, both inorganic and organic.

The Unit Operations laboratory contains equipment for the study of fluid flow, heat flow, drying, filtration, distillation, evaporation, grinding, and centrifuging. For the study of fluid flow, a permanent hydraulic assembly is available, and this includes flow meters of every type. Equipment for the study of heat flow includes a large gas-fired furnace, concentric pipe assembly for forced convection experiments, thermal insulation of various types, and temperature measuring devices including the optical, radiation, and potentiometric types. Electrical and steam driers are available, including a vacuum shelf drier equipped with jet ejector and tubular condenser. A large mixing tank and agitator, a self-priming turbine pump, Sweetland filter press, and a large plate and frame press are available for studies in filtration.

In the laboratory there is a large column still with a kettle capacity of 100 gallons, equipped with temperature measurement, sampling devices, condensers, and vacuum receivers. This still is so designed that it can be used either as a batch type unit, continuous feed type, direct pot still, or as a vacuum still. Studies in evaporation can be made on a double effect evaporator, one unit of which is equipped with a horizontal tube bundle and the other with a vertical tube bundle. This evaporator is equipped with vacuum and pressure gauges, circulating device, wet vacuum pump, a condensate pump, and a salt filter. For grinding there is a jaw crusher, a disc crusher, and an Abbé ball mill and standard sieves. A small basket centrifuge of high velocity type, a 12-inch basket centrifuge of the suspended type, and an ordinary tube centrifuge are available for centrifuge study.

Shop facilities include a lathe, drill press, grinder, and the customary types of tools necessary for unit operation and research studies.

The Cooperative and Graduate Research Laboratories are arranged to permit the installation of such special equipment as the particular problems under consideration may require. Effort is made to maintain cooperation with the industries of Maryland and the Chemical Engineering activities of the State and Federal governments; for such work important advantages accrue because of the location of the College of Engineering near Washington, D. C., and the location of the Eastern Experiment Station of the United States Bureau of Mines on the University campus.

Electrical Machinery Laboratories. There is provided a 20 kw. motor-generator set, consisting of a synchronous motor and a compound direct-

current generator with motor and generator control panels, to furnish direct current for testing purposes. Through the distribution switchboard, provision is made for distributing to the various laboratories direct current at 125 volts, and alternating current, single-phase, and three-phase, at 110 and 220 volts.

The equipment includes a variety of direct and alternating-current generators and motors, synchronous converter, distribution transformers, induction regulator, control apparatus, and the measuring instruments essential for practical electrical testing. Most of the machines are of modern construction and of such size and design as to give typical performance. Flexibility of operation is provided in several ways: for instance, one of the synchronous machines has the coil terminals brought out to an external connection board, so that the windings may be connected for single-phase, two-phase, or three-phase operation; the machine is also provided with a phase-wound rotor and a squirrel-cage rotor, either of which may be used to replace the synchronous rotor. The synchronous converter is arranged for direct or inverted operation, either single-phase, two-phase, or three-phase. Metering and control boards are provided for rapid change of operating conditions with any machine. A single phase induction regulator with control panel provides voltage regulation for experimental work. There are several types of fractional-horsepower motors. The direct-current machines include several motor-generator sets and motors of various types and sizes for constant-speed and adjustable-speed operation. Storage batteries are available for low constant-voltage testing. Water-cooled Prony brakes are supplied for machine testing. Included in the general test equipment is a fairly complete assortment of ammeters, voltmeters, wattmeters, frequency meters, and two oscillographs.

Illumination Laboratory. The equipment includes electric lamps, shades, and reflectors of various types; a bar photometer for determination of candle-power distribution of incandescent lamps; and four types of portable photometers for the measurement of illumination intensities.

Standardizing Laboratory. The apparatus includes a standard ammeter, voltmeter and watt-hourmeter, standards of voltage and resistance, potentiometers and other equipment arranged for checking of laboratory meters. A five machine motor-generator set delivers power, both direct and alternating-current, at two voltages for meter testing.

Electrical Communication Laboratory. Telephone apparatus is available for experimental work on magneto and common battery systems; artificial lines, oscillators, vacuum tube voltmeters, cathode-ray oscillograph, and equipment for passive networks including transmission lines and coupled circuits.

An amateur short wave radio station has been equipped for operation by the members of the student Radio Society under the guidance of a member of the faculty. The station equipment consists of a super-heterodyne receiver and a 500-watt transmitter.

Mechanical Engineering Laboratories. The apparatus consists of plain slide valve engines, steam turbine set, fans, pumps, indicators, gauges, feed water heaters, tachometers, injectors, flow meters, apparatus for determination of the B. T. U. in coal, gas, and liquid fuels, pyrometers, draft gauges, planimeters, thermometers, and other necessary apparatus and equipment for a mechanical laboratory.

Materials Laboratories. Apparatus and equipment are provided for making standard tests on various construction materials, such as sand, gravel, steel, concrete, timber, and brick.

Equipment includes a 300,000-pound hydraulic testing machine, two 100,000-pound universal testing machines, cement-testing apparatus, extensometer and micrometer gauges, and other special devices for ascertaining the elastic properties of different materials.

Special apparatus which has been designed and made in the shops of the University is also made available for student work.

The College of Engineering owns a Beggs deformeter apparatus for the mechanical solution of stresses in structures by use of celluloid models. Equipment is also available for study of models by the photo-elastic method.

Research Foundation. The National Sand and Gravel Association has, by arrangement with the College of Engineering, established its testing and research laboratory at the University. The purpose of the Research Foundation thus organized is to make available to the Association additional facilities for its investigational work, and to provide for the College of Engineering additional facilities and opportunities for increasing the scope of its engineering research.

Engineering Experiment Station. The purpose of the Engineering Experiment Station at the University, as well as of the various research laboratories, is to conduct cooperative studies with departments of the State and Federal governments, and with the industries of Maryland. These studies have included traffic surveys over the Maryland State highway system, studies of concrete cores cut from the state roads, and laboratory studies of the elastic properties of concrete.

Cooperative researches now under way in the Engineering Experiment Station include the following projects: reinforced concrete hinge construction, dielectric constant of dry paper, smoke abatement, expansion joints for concrete roads, and diagonal tension reinforcement for concrete beams.

Machine Shops and Foundry. The machine shops and foundry are well lighted and fully equipped. Shops for wood working, metal, forge, and foundry practice are provided.

The wood-working shop has full equipment of hand and power machinery.

The machine shops are equipped with various types of lathes, planers, milling machines, and drill presses.

The foundry is provided with an iron cupola, a brass furnace, and a coke oven.

The shop equipment not only furnishes practice, drill, and instruction for students, but makes possible the complete production of special apparatus for conducting experimental and research work in engineering.

Surveying Equipment. Surveying equipment for plane topographic, and geodetic surveying is provided properly to equip several field parties. A wide variety of instruments is provided, including domestic as well as foreign makes.

Special Models and Specimens. A number of models illustrating various types of highway construction and highway bridges are available.

A wide variety of specimens of the more common minerals and rocks has been collected from various sections of the country, particularly from Maryland.

Engineering Library

In addition to the general University Library, each department maintains a library for reference, and receives the standard engineering magazines. The class work, particularly in advanced courses, requires that students consult special books of reference and current technical literature.

The Davis Library of Highway Engineering and Transport, founded by Dr. Charles H. Davis, President of the National Highways Association, is part of the Library of the College of Engineering. The many books, periodicals, pamphlets, and other items included in this library cover all phases of highway engineering, highway transportation, and highway traffic control.

There has also been donated to the College of Engineering the transportation library of the late J. Rowland Bibbins of Washington, D. C. The books and reports in this library deal with urban transportation problems, including railroads, street cars, subways, busses, and city planning.

Curricula

The normal curriculum of each department is outlined on the following pages. Students are expected to attend and take part in the meetings of the student chapters of the technical engineering societies.

The freshman engineering students are given a special course of lectures by practicing engineers covering the work of the several engineering professional fields. The purpose of this course is to assist the freshman in selecting the particular field of engineering for which he is best adapted. The student is required to submit a brief written summary of each lecture.

Student branches of the following national technical societies are established in the College of Engineering: American Society of Civil Engineers, American Institute of Electrical Engineers, and American Society of Mechanical Engineers. The student branches meet regularly for the discussion of topics dealing with the various fields of engineering.

Junior and senior students with requisite standing may elect, with the permission of the Dean of the College of Engineering, additional courses not exceeding three credits a semester.

All engineering students are urged to secure work during the summer, particularly in engineering fields.

The proximity of the University to Baltimore and Washington, and to other places where there are large industrial enterprises, offers an excellent opportunity for the engineering student to observe what is being done in his chosen field. An instructor accompanies students on all inspection trips, and the student is required to submit a written report of each trip.

Freshman Year

Alike for all engineering courses.

	Semester	
	I	II
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
College Algebra (Math. 21f).....	4	—
Analytic Geometry (Math. 22s).....	—	4
General Chemistry (Chem. 1y).....	4	4
Engineering Drawing (Dr. 1f).....	2	—
Descriptive Geometry (Dr. 2s).....	—	2
Forge Practice (Shop 1s).....	—	1
Introduction to Engineering (Engr. 1f).....	1	—
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
*Elective	3	3
	—	—
	19	19

*The student may elect a course in Social Science, History, Language, or Government. Students who plan to enroll in Chemical Engineering are advised to take German or French.

CHEMICAL ENGINEERING

Chemical Engineering deals primarily with the industrial and economic transformation of matter. It seeks to assemble and develop information on chemical operations and processes of importance in modern life and to apply this under executive direction, according to engineering methods for the attainment of economic objectives. Modern chemical research has contributed so much to industrial and social welfare that the field of the chemical engineer may now be said to cover practically every operation in which any industrial material undergoes a change in its chemical identity.

Sophomore Year

	Semester	
	I	II
Elementary German (German 1y) or Elementary French (French 1y).....	3	3
Calculus (Math. 23y).....	4	4
Elements of Organic Chemistry (Chem. 8Ay).....	2	2
Elementary Organic Laboratory (Chem. 8By).....	2	2
Elements of Plane Surveying (Surv. 1s).....	—	1
Principles of Economics (Econ. 51f and 52s).....	3	3
General Physics (Phys. 2y).....	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
	—	—
	21	22

Junior Year

Applied Mechanics (y).....	2	2
Thermodynamics (s)	—	3
Physical Chemistry (Chem. 102Ay).....	3	3
Physical Chemistry Laboratory (Chem. 102By).....	2	2
Quantitative Analysis (Chem. 4f).....	4	—
Water, Fuels, and Lubricants (Ch. E. 102s).....	—	4
Elements of Electrical Engineering (E. E. y).....	3	3
Elements of Chemical Engineering (Ch. E. 103y).....	3	3
Fundamentals of Business Administration (O. and M. 110f).....	2	—
	—	—
	19	20

Senior Year

Electrochemistry (Chem. 105y)	2	2
Chemical Engineering Seminar (Ch. E. 104y).....	1	1
Precision of Measurements (Phys. 101f).....	3	—
Advanced Unit Operations (Ch. E. 105y).....	5	5
Minor Problems (Ch. E. 106s).....	—	7
*Fuels and their Utilization (Ch. E. 107f).....	5	—
*Chemical Technology (Ch. E. 108y).....	2	2
	—	—
	18	17

CHEMICAL ENGINEERING-CHEMISTRY

A five-year program in Chemical Engineering and Chemistry will be arranged between the College of Engineering and the College of Arts and Sciences which will permit students, who so desire, to become candidates for the degrees of Bachelor of Science in Engineering and Bachelor of Science in Arts.

*Student has a choice between Chemical Technology and Fuels.

CIVIL ENGINEERING

Civil Engineering deals with the design, construction, and maintenance of highways, railroads, waterways, bridges, buildings, water supply and sewerage systems, harbor improvements, dams, and surveying and mapping.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Sophomore Year</i>		
Oral Technical English (Speech 5f).....	2	—
Calculus (Math. 23y).....	4	4
General Physics (Phys. 2y).....	5	5
Descriptive Geometry (Dr. 3f).....	2	—
Statics and Dynamics (Mech. 1s).....	—	3
Plane Surveying (Surv. 2y).....	2	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
*Elective	3	3
	—	—
	20	20
<i>Junior Year</i>		
Advanced Oral Technical English (Speech 6y).....	1	1
Fundamentals of Economics (Econ. 57s).....	—	3
Engineering Geology (Engr. 101f).....	2	—
Strength of Materials (Mech. 101f).....	5	—
Hydraulics (C. E. 101s).....	—	4
Materials of Engineering (Mech. 103s).....	—	2
Principles of Mechanical Engineering (M. E. 112f).....	3	—
Principles of Electrical Engineering (E. E. 101s)	—	3
Curves and Earthwork (C. E. 103f).....	3	—
Theory of Structures (C. E. 104s).....	—	5
Advanced Surveying (Surv. 101f).....	4	—
Technical Society	—	—
	—	—
	18	18
<i>Senior Year</i>		
Advanced Oral Technical English (Speech 7y).....	1	1
Fundamentals of Business Administration (O. and M. 110f).....	2	—
Engineering Law and Specifications (Engr. 102s).....	—	2
Elements of Sanitary Bacteriology (Bact. 4s).....	—	1
Elements of Highways (C. E. 105f).....	3	—
Concrete Design (C. E. 106y).....	4	3
Structural Design (C. E. 107y).....	4	3
Municipal Sanitation (C. E. 108y).....	3	3
Thesis (C. E. 109y).....	1	2
Soils and Foundations (C. E. 110s).....	—	3
Technical Society	—	—
	—	—
	18	18

*The student may elect a course in Social Science, History, Language, or Government.

ELECTRICAL ENGINEERING

Electrical Engineering deals with the generation, transmission, and distribution of electrical energy; electrical transportation, communication, illumination, and manufacturing; and miscellaneous electrical applications in industry, commerce, and home life.

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Sophomore Year</i>		
Oral Technical English (Speech 5f).....	2	—
Calculus (Math. 23y).....	4	4
General Physics (Phys. 2y).....	5	5
Descriptive Geometry (Dr. 3f).....	2	—
Elements of Plane Surveying (Surv. 1f and s).....	1	—
Machine Shop Practice (Shop 2f).....	1	—
Elements of Electrical Engineering (E. E. 1s).....	—	3
Statics and Dynamics (Mech. 1s).....	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
*Elective	3	3
	—	—
	20	20
<i>Junior Year</i>		
Advanced Oral Technical English (Speech 6y).....	1	1
Fundamentals of Economics (Econ. 57s).....	—	3
Differential Equations for Engineers (Math. 114f).....	3	—
Strength of Materials (Mech. 102f).....	4	—
Hydraulics (C. E. 102s).....	—	3
Materials of Engineering (Mech. 103s).....	—	2
Direct Currents (E. E. 103f).....	6	—
Direct Current Design (E. E. 104s).....	—	1
Electrical Measurements (E. E. 105f).....	4	—
Alternating Current Circuits (E. E. 106s).....	—	5
Thermodynamics (M. E. 103s).....	—	3
Technical Society	—	—
	—	—
	18	18

*The student may elect a course in Social Science, History, Language, or Government.

Senior Year

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Advanced Oral Technical English (Speech 7y).....	1	1
Fundamentals of Business Administration (O. and M. 110f).....	2	—
Engineering Law and Specifications (Engr. 102s).....	—	2
Alternating Current Machinery (E. E. 107y).....	4	4
Alternating Current Design (E. E. 108f).....	1	—
Electrical Communications (E. E. 109y).....	3	3
Illumination (E. E. 110f).....	3	—
Electric Railways (E. E. 111f).....	3	—
Electric Power Transmission (E. E. 112s).....	—	3
Power Plants (M. E. 113s).....	—	3
Thesis (E. E. 113y).....	1	2
Technical Society	—	—
	—	—
	18	18

MECHANICAL ENGINEERING

Mechanical Engineering deals with the design, construction, and maintenance of machinery and power plants; heating, ventilation, and refrigeration; and the organization and operation of industrial plants.

Sophomore Year

Oral Technical English (Speech 5f).....	2	—
Calculus (Math. 23y).....	4	4
General Physics (Phys. 2y).....	5	5
Descriptive Geometry (Dr. 3f).....	2	—
Elements of Plane Surveying (Surv. 1f and s).....	—	1
Machine Shop Practice (Shop 3f).....	2	—
Statics and Dynamics (Mech. 1s).....	—	3
Kinematics of Machinery (M. E. 1s).....	—	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
*Elective	3	3
	—	—
	20	20

*The student may elect a course in Social Science, History, Language, or Government.

Semester

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Advanced Oral Technical English (Speech 6y).....	1	1
Fundamentals of Economics (Econ. 57s).....	—	3
Differential Equations for Engineers (Math. 114f).....	3	—
Heat Transfer and Fluid Flow (Ch. E. 101f).....	3	—
Water, Fuels, and Lubricants (Ch. E. 102s).....	—	3
Strength of Materials (Mech. 102f).....	4	—
Hydraulics (C. E. 102s).....	—	3
Materials of Engineering (Mech. 103s).....	—	2
Kinematics of Machinery (M. E. 101f).....	3	—
Machine Design (M. E. 102f).....	3	—
Machine Shop Practice (Shop 101f).....	1	—
Foundry Practice (Shop 102s).....	—	1
Thermodynamics (M. E. 104s).....	—	5
Technical Society	—	—
	—	—
	18	18

Senior Year

Advanced Oral Technical English (Speech 7y).....	1	1
Fundamentals of Business Administration (O. and M. 110f).....	2	—
Engineering Law and Specifications (Engr. 102s).....	—	2
Internal Combustion Engines (M. E. 105f).....	3	—
Heating and Ventilation (M. E. 106f).....	3	—
Refrigeration (M. E. 107s).....	—	3
Design of Prime Movers (M. E. 108y).....	3	3
Design of Power Plants (M. E. 109s).....	—	2
Principles of Electrical Engineering (E. E. 102y).....	4	4
Mechanical Laboratory (M. E. 110y).....	1	1
Thesis (M. E. 111y).....	1	2
Technical Society	—	—
	—	—
	18	18

**BUREAU OF MINES AND CHEMICAL ENGINEERING RESEARCH
FELLOWSHIPS IN APPLIED SCIENCE AND ENGINEERING**

The University of Maryland, in cooperation with the Bureau of Mines, offers three fellowships for research in the field of engineering and applied sciences. Fellows enter upon their duties on July 1, and continue for 12 months, including one month for vacation. Payments under a fellowship are made at the end of each month, and amount to \$600 for the year. The University will remit payment of tuition fees, and will grant all fellowship privileges.

Fellows register as students in the Graduate School of the University of Maryland, and become candidates for the degree of Doctor of Philosophy. Class work will be directed by the heads of the departments of instruction,

but about half of the time will be spent in research, under the direction of the Bureau of Mines staff.

One fellowship will be assigned for its research project in the Metallurgical Division of the Bureau of Mines. A second one likewise will be assigned to the Nonmetals Division, and a third to the Mining Division. Appropriate problems in physics, chemistry, chemical engineering, or mathematics will be chosen according to the abilities of the candidates and the interests of the Bureau Divisions. The faculty supervisor will be the Professor of Chemical Engineering of the University of Maryland.

The above fellowships will be known as Bureau of Mines Research Fellowships. The recipients will undertake the solution of definite problems confronting the mineral industries. The research will be performed at the Eastern Experiment Station of the Bureau of Mines, a large building recently completed on the campus of the University of Maryland in College Park.

To encourage cooperation with the industries of Maryland and to develop research and instruction in Chemical Engineering, the University of Maryland will offer two fellowships in Chemical Engineering. These fellowships will pay a stipend of \$500 per year each, and will ordinarily require residence during the university year from September to June.

All of the foregoing fellowships are open to graduates of universities and technical colleges who have the proper training in engineering or applied physical sciences, and who are qualified to undertake research work. Preference will be given to men who have already had one year of graduate work, and who have experience in research.

Applications with a certified copy of college record, applicant's photograph, statement of technical and practical experience (if any), and letters from three persons, such as instructors or employers, covering specifically the applicant's character, ability, education, and experience, will be received up to April 1. The application should be addressed to Fellowship Committee, Eastern Experiment Station, Bureau of Mines, United States Department of the Interior, College Park, Maryland.

BUREAU OF MINES LECTURES

Under the auspices of the University of Maryland, the Bureau of Mines of the United States Department of the Interior, which maintains its Eastern Experiment Station on the campus at College Park, will offer an interesting series of public lectures in the auditorium of the College of Engineering throughout the university year. The lectures, eight in number, will be given monthly, beginning in October, on the fourth Tuesday evening of each month at 8:15 P. M. The speakers will be outstanding members of the staff of the Bureau's various experiment stations throughout the United States, selected because of broad and varied experience in fields of wide technical and public interest, involving fundamental and pioneering research. Although the lectures are arranged in connection with the new work of the University in chemical engineering, they cover a broad field of science, technology, and economics.

There will be no charge for admission. The general public as well as the faculty and student body are cordially invited.

COLLEGE OF HOME ECONOMICS

M. MARIE MOUNT, *Dean*

Home economics subjects are planned to meet the needs of the following classes of students: (1) those who desire a general knowledge of home economics without specializing in any one phase; (2) those who wish to teach home economics or to become extension specialists in home economics; (3) those who are interested in certain phases of home economics with the intention of becoming dietitians, restaurant and cafeteria managers, textile specialists, designers, buyers of clothing in department stores, or demonstrators for commercial firms.

Departments

For administrative purposes the College of Home Economics is organized into the Departments of Foods and Nutrition; Textiles, Clothing, and Art; and Home and Institution Management.

Facilities

The Home Economics Building is equipped with class rooms and laboratories. In addition the college maintains a home management house, in which students gain practical experience in home-making during their senior year.

Baltimore and Washington afford unusual opportunities for trips, additional study, and practical experience pertaining to the various phases of home economics.

Degree

The degree of Bachelor of Science is conferred for the satisfactory completion of four years of prescribed courses, of 128 semester hours. In accordance with the University policy, not less than three-fourths of the credits for graduation must be earned with grades of A, B, or C.

Prescribed Curricula

All students registered in the College of Home Economics follow the General Home Economics Curriculum for the first two years. At the beginning of the junior year a student may continue with the General Home Economics Curriculum, or elect one of the following special curricula, or a combination of curricula. A student who wishes to teach home economics may register in Home Economics Education in the College of Home Economics, or in the College of Education (see Home Economics Education).

Following are the outlines of the Curricula for General Home Economics, Textiles and Clothing, Foods and Nutrition, Institution Management, Practical Art, and Home Economics Extension.

GENERAL HOME ECONOMICS

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
General Chemistry (Chem. 1y).....	4	4
Textiles (H. E. 71f).....	3	—
Design (H. E. 21s).....	—	3
Reading and Speaking (Speech 1y).....	1	1
Physical Education (Phys. Ed. 2y and 4y).....	1	1
Home Economics Lectures (H. E. 1y).....	1	1
*Electives	2-3	2-3
	15-16	15-16
<i>†Sophomore Year</i>		
Costume Design (H. E. 24f).....	3	—
Clothing (H. E. 11s).....	—	3
Foods (H. E. 31y).....	3	3
Elementary Physics (Phys. 3y).....	3	3
Physical Education (Phys. Ed. 6y and 8y).....	2	2
Principles of Sociology (Soc. 1f).....	3	—
Fundamentals of Economics (Econ. 57f).....	—	3
‡Electives	3	3
	17	17
<i>Junior Year</i>		
§Elements of Nutrition (H. E. 32f).....	} 3	—
or		
Nutrition (H. E. 131f).....		—
Food Buying and Meal Service (H. E. 137s).....	—	3
Management of the Home (H. E. 141f and 142s).....	3	3
Advanced Clothing (H. E. 111f or s).....	3	—
Household Bacteriology (Bact. 3s).....	—	3
Interior Decoration (H. E. 121f and 122s).....	3	3
Electives	4-5	4-5
	16-17	16-17
<i>Senior Year</i>		
Child Study (H. E. Ed. 102f).....	4	—
Practice in Management of the Home (H. E. 143f).....	4	—
Electives	7	15
	15	15

* One year or more of French is required of students majoring in art.
† Organic Chemistry (Chem. 12 Ay and Chem. 12 By) is required of students electing the foods, textiles and clothing, and institution management curriculums.
‡ In addition to the curriculum as prescribed one course in psychology is required and one course in the following sciences: zoology, botany, physiology, or genetics.
§ Students whose major is foods and institution management will elect Nutrition (H. E. 131f). Chem. 12 Ay is prerequisite for Nutrition (H. E. 131f).

FOODS AND NUTRITION CURRICULUM

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Junior Year</i>		
General Physiological Chemistry (Chem. 108f).....	4	—
Nutrition (H. E. 131f).....	3	—
Dietetics (H. E. 132s).....	—	3
Management of the Home (H. E. 141f and 142s).....	3	3
Household Bacteriology (Bact. 3s).....	—	3
Food Buying and Meal Service (H. E. 137s).....	—	3
Interior Decoration (H. E. 121f and 122s).....	3	3
Electives	4	2
	17	17
<i>Senior Year</i>		
Child Study (H. E. Ed. 102f).....	4	—
Practice in Management of the Home (H. E. 143f).....	4	—
Experimental Foods (H. E. 135f).....	4	—
Demonstrations (H. E. 133s).....	—	2
Advanced Foods (H. E. 134s).....	—	3
Electives	3	10
	15	15

INSTITUTION MANAGEMENT CURRICULUM

<i>Junior Year</i>		
	<i>I</i>	<i>II</i>
General Physiological Chemistry (Chem. 108f).....	4	—
Household Bacteriology (Bact. 3s).....	—	3
*Nutrition (H. E. 131f).....	3	—
Dietetics (H. E. 132s).....	—	3
Management of the Home (H. E. 141f and 142s).....	3	3
Institution Management (H. E. 144y).....	3	3
Technic of Teaching (H. E. Ed. 5s).....	—	2
Observation of Teaching (H. E. Ed. 6s).....	—	1
Food Buying and Meal Service (H. E. 137s).....	—	3
Electives	4	—
	17	18

* In addition to Nutrition and Dietetics (H. E. 131f and 132s), Child Nutrition (H. E. 136s) is recommended.

	Semester	
	I	II
<i>Senior Year</i>		
Practice in Management of the Home (H. E. 143f).....	4	—
Child Study (H. E. Ed. 102s).....	—	4
Experimental Foods (H. E. 135f).....	4	—
Advanced Institution Management (H. E. 146s).....	—	3
Institution Cookery (H. E. 147f).....	3	—
Interior Decoration (H. E. 121f and 122s).....	3	3
Mental Hygiene (Ed. Psych. 105s).....	—	3
Electives	1	2
	—	—
	15	15

HOME ECONOMICS EXTENSION CURRICULUM

<i>Junior Year</i>		
Nutrition (H. E. 131f).....	3	—
Dietetics (H. E. 132s).....	—	3
Management of the Home (H. E. 141f and 142s).....	3	3
Advanced Clothing (H. E. 111f).....	3	—
Household Bacteriology (Bact. 3s).....	—	3
Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (H. E. Ed. 5s).....	—	2
Observation of Teaching (H. E. Ed. 6s).....	—	1
Demonstrations (H. E. 133f).....	2	—
Food Buying and Meal Service (H. E. 137s).....	—	3
Interior Decoration (H. E. 121f and 122s).....	3	3
Electives	—	—
	—	—
	17	18

<i>Senior Year</i>		
Child Study (H. E. Ed. 102f).....	4	—
Practice in Management of the Home (H. E. 143f).....	4	—
Problems and Practice in Foods (H. E. 135f).....	4	—
Mental Hygiene (Psych. 130s).....	—	3
Human Physiology (Zool. 16s).....	—	3
Methods in Home Economics Extension (H. E. 151s).....	—	3
Electives	3	6
	—	—
	15	15

	Semester	
	I	II
Textile and Clothing Curriculum		
<i>Junior Year</i>		
Advanced Clothing (H. E. 111f).....	3	—
Advanced Textiles (H. E. 171f).....	3	—
Chemistry of Textiles (Chem. 14s).....	—	3
*Nutrition (H. E. 131f).....	3	—
or		
Elements of Nutrition (H. E. 32f).....	3	—
Management of the Home (H. E. 141f and 142s).....	3	3
Household Bacteriology (Bact. 3s).....	—	3
Interior Decoration (H. E. 121f and 122s).....	3	3
Electives	2	4
	—	—
	17	16
<i>Senior Year</i>		
Special Clothing Problems (H. E. 112s).....	—	3
Special Textile Problems (H. E. 172f).....	4	—
Practice in Management of the Home (H. E. 143f).....	4	—
Child Study (H. E. Ed. 102f or s).....	4	—
Electives	2	4
	—	—
	15	15
**Practical Art		
<i>Junior Year</i>		
Human Physiology (Zool. 16s).....	—	3
Art in Ancient Civilization I and II (Art. 1f and 2s).....	2	2
Interior Decoration (H. E. 121f and H. E. 122s).....	3	3
Management of the Home (H. E. 141f).....	3	3
Elements of Nutrition (H. E. 32f).....	3	—
Introduction to Psychology (Psych. 1f).....	3	—
Psychology of Personnel (Psych. 161s).....	—	3
Advanced Clothing (H. E. 111f).....	3	—
Electives	—	3
	—	—
	17	17
<i>Senior Year</i>		
Advanced Design (H. E. 123f and 124s).....	3	3
Elements of Business (O. and M. 51f).....	2	—
Practice in Management of the Home (H. E. 143f).....	4	—
Child Study (H. E. Ed. 102f).....	4	—
Merchandise Display (H. E. 125s).....	—	2
Electives	2	10
	—	—
	15	15

* Chemistry 12 Ay is prerequisite for Nutrition H. E. 131f.
 **Students electing the Practical Arts curriculum may substitute Chemistry 3y for Chemistry 1y. An elective in science may be substituted for Phys. 3y. A total of 12 hours of science is required in this curriculum.

THE GRADUATE SCHOOL

C. O. APPLEMAN, *Dean*.

The Graduate School Council

- H. C. BYRD, LL.D., President of the University.
C. O. APPLEMAN, Ph.D., Dean of the Graduate School, Chairman.
L. B. BROUGHTON, Ph.D., Professor of Chemistry.
E. N. CORY, Ph.D., Professor of Entomology.
H. F. COTTERMAN, Ph.D., Professor of Agricultural Education.
WM. H. FALLS, Ph.D., Professor of French.
H. C. HOUSE, Ph.D., Professor of English Language and Literature.
L. V. HOWARD, Ph.D., Professor of Political Science.
L. H. JAMES, Ph.D., Professor of Bacteriology.
DEVOE MEADE, Ph.D., Professor of Animal and Dairy Husbandry.
J. E. METZGER, M.A., Professor of Agronomy.
M. MARIE MOUNT, M.A., Professor of Home and Institution Management.
H. J. PATTERSON, D.Sc. Dean Emeritus of Agriculture.
W. S. SMALL, Ph.D., Professor of Education.
T. H. TALIAFERRO, C.E., Ph.D., Dean of the Faculty.
MARVIN R. THOMPSON, Ph.C., Ph.D., Emerson Professor of Pharmacology (Baltimore).
EDUARD UHLENHUTH, Ph.D., Professor of Gross Anatomy (Baltimore).

General Information

HISTORY AND ORGANIZATION

In the earlier years of the institution the Master's degree was frequently conferred, but the work of the graduate students was in charge of the departments concerned, under the supervision of the general faculty. The Graduate School was established in 1918, and organized graduate instruction leading to both the Master's and the Doctor's degree was undertaken. The faculty of the Graduate School includes all members of the various faculties who give instruction in approved graduate courses. The general administrative functions of the graduate faculty are delegated to a Graduate Council, of which the Dean of the Graduate School is chairman.

LIBRARIES

In addition to the resources of the University library, the great libraries of the National Capital are easily available for reference work. Because of the proximity of these libraries to College Park they are a valuable asset to research and graduate work at the University of Maryland.

The library building at College Park contains a number of seminar rooms and other desirable facilities for graduate work.

GENERAL REGULATIONS

ADMISSION

Graduates from recognized colleges regarded as standard by the institution and by regional or general accrediting agencies are admitted to the Graduate School. The applicant shall present an official transcript of his college record, which for unconditional admission shall show creditable completion of an undergraduate major in the subject chosen for specialization in the Graduate School.

Application blanks for admission to the Graduate School are obtained from the office of the Dean. After approval of the application, a matriculation card, signed by the Dean, is issued to the student. This card permits one to register in the Graduate School. After payment of the fee, the matriculation card is stamped and returned. It is the student's certificate of membership in the Graduate School, and may be called for at any succeeding registration.

Admission to the Graduate School does not necessarily imply admission to candidacy for an advanced degree.

REGISTRATION

All students pursuing graduate work in the University, even though they are not candidates for higher degrees, are required to register in the Graduate School at the beginning of each semester. Students taking graduate work in the Summer Session are also required to register in the Graduate School at the beginning of each session. In no case will graduate credit be given unless the student matriculates and registers in the Graduate School. Registration for the first semester is held in the Gymnasium-Armory on the date designated in the calendar. A late registration fee will be charged to graduate students who register after October 5 and February 5. Students register for the second semester and the summer session in the office of the Dean, T-214, Agriculture Building.

The program of work for the semester or the summer session is arranged by the student with the major department and entered upon two course cards, which are signed first by the professor in charge of the student's major subject and then by the Dean of the Graduate School. One card is retained by the Dean. The student takes the other card, and, in case of a new student, also the matriculation card, to the Registrar's office, where registration is completed. Students will not be admitted to graduate courses until the registrar has certified to the instructor that registration has been completed. Course cards may be obtained at the Registrar's office or at the Dean's office. The heads of departments usually keep a supply of these cards in their respective offices.

GRADUATE COURSES

Graduate students must elect for credit in partial fulfillment of the requirements for higher degrees only courses designated *For Graduates, or*

For Graduates and Advanced Undergraduates. Graduate students may elect courses numbered from 1 to 99 in the general catalogue, but graduate credit will not be allowed for these. Students with inadequate preparation may be obliged to take some of these courses as prerequisites for advanced courses. No credit toward graduate degrees may be obtained by correspondence or extension study.

PROGRAM OF WORK

The professor who is selected to direct a student's thesis work is the student's adviser in the formulation of a graduate program, including suitable minor work, which is arranged in coöperation with the instructors. To encourage thoroughness in scholarship through intensive application, graduate students in the regular sessions are limited to a program of thirty credit hours for the year, including thesis work, which is valued at not less than six hours.

SUMMER GRADUATE WORK

Graduate work in the summer session may be counted as residence toward an advanced degree. By carrying approximately six semester hours of graduate work for four summer sessions at this institution, a student may fulfill the residence requirements for the master's degree, provided that the greater part of the thesis work can be done under direction during the periods between summer sessions. In some instances a fifth summer of residence may be required in order that a satisfactory thesis may be completed.

By special arrangement, graduate work may be pursued in some departments during the entire summer. Such students as graduate assistants, or others who may wish to supplement work done during the regular year, may satisfy one-third of an academic year's residence by full-time graduate work for eleven or twelve weeks, provided satisfactory supervision and facilities for summer work are available in their special fields.

The University publishes a special bulletin, giving full information concerning the Summer Session and the graduate courses offered therein. This bulletin is available upon application to the Registrar of the University.

GRADUATE WORK IN PROFESSIONAL SCHOOLS AT BALTIMORE

Graduate courses and opportunities for research are offered in some of the professional schools at Baltimore. Students pursuing graduate work in the professional schools must register in the Graduate School, and meet the same requirements and proceed in the same way as do graduate students in other departments of the University. Graduate courses in the professional schools are listed in the Graduate School Announcements.

GRADUATE WORK BY SENIORS IN THIS UNIVERSITY

Seniors who have completed all their undergraduate courses in this University by the end of the first semester, and who continue their residence in the University for the remainder of the year, are permitted to register in the Graduate School and secure the privileges of its membership, even though the bachelor's degree is not conferred until the close of the year.

A senior of this University who has nearly completed the requirements for the undergraduate degree may, with the approval of his undergraduate dean and the Dean of the Graduate School, register in the undergraduate college for graduate courses, credits for which may be transferred toward an advanced degree at this University; but the total of undergraduate and graduate courses must not exceed fifteen credits for the semester. Graduate credits earned during the senior year may not be used to shorten the residence period required for advanced degrees.

ADMISSION TO CANDIDACY FOR ADVANCED DEGREES

Application for admission to candidacy for the Master's and for the Doctor's degree is made on application blanks, which are obtained at the office of the Dean of the Graduate School. These are filled out in duplicate, and, after the required endorsements are obtained, the applications are acted upon by the Graduate Council. An official transcript of the candidate's undergraduate record and of any graduate courses completed at other institutions must be filed in the Dean's office before the application can be considered.

Admission to candidacy in no case assures the student of a degree, but merely signifies that he has met all the formal requirements and is considered by his instructors sufficiently prepared and able to pursue such graduate study and research as are demanded by the requirements of the degree sought. The candidate must show superior scholarship by the type of graduate work already completed.

Application for admission to candidacy is made at the time stated in the sections dealing with the requirements for the degree sought.

REQUIREMENTS FOR THE DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE

Advancement to Candidacy. Each candidate for the Master's degree is required to make application for admission to candidacy not later than the date when instruction begins for the second semester of the academic year in which the degree is sought, but not until at least twelve semester course hours of graduate work have been completed. An average grade as high as B in all major and minor subjects is required.

Minimum Residence. A residence of at least one full academic year, or its equivalent, at this institution, is required.

Course Requirements. A minimum of twenty-four semester hours with an average grade as high as B in courses approved for graduate credit

is required for the Master's degree. If the student is inadequately prepared for the required graduate courses, either in the major or minor subjects, additional courses may be required to supplement the undergraduate work. Of the twenty-four hours required in graduate courses, not less than twelve semester hours and not more than sixteen semester hours must be earned in a major subject. The remaining credits must be outside the major subject, and must comprise a group of coherent courses intended to supplement and support the major work. Not less than one-half of the total required course credits for the Master's degree, or a minimum of twelve, must be selected from courses numbered 200 or above. The entire course of study must constitute a unified program approved by the student's major adviser and by the Dean of the Graduate School.

Transfer of Credit. Credit, not to exceed six hours, obtained at other recognized institutions may be transferred and applied to the course requirements of the Master's degree, provided that the work was of graduate character, and provided that acceptance of the transferred credit does not reduce the minimum residence period of one academic year. The candidate is, however, subject to final examination by this institution in all work offered for the degree.

Thesis. In addition to the twenty-four semester hours in graduate courses a satisfactory thesis is required of all candidates for the Master's degree. It must demonstrate the student's ability to do independent work, and it must be acceptable in literary style and composition. It is assumed that the time devoted to thesis work will be not less than the equivalent of six semester hours earned in graduate courses. With the approval of the student's major professor and the Dean of the Graduate School, the thesis in certain cases may be prepared *in absentia* under direction and supervision of a member of the faculty of this institution.

The original copy of the thesis must be deposited in the office of the Graduate School not later than two weeks before Commencement. An abstract of the contents of the thesis, 200 to 250 words in length, must accompany it. A manual giving full directions for the physical make-up of the thesis is in the hands of each professor who directs thesis work, and should be consulted by the student before the typing of the manuscript is begun. Students may obtain individual copies of this manual at the Dean's office, at nominal cost.

Final Examination. The final oral examination is conducted by a committee appointed by the Dean of the Graduate School. The student's adviser acts as chairman of the committee. The other members are persons under whom the student has taken most of his major and minor courses. The chairman and the candidate are notified of the personnel of the examining committee at least one week prior to the period set for oral examinations. The chairman of the committee selects the exact time and place for the examination and notifies the other members of the committee and the candidate. The examination should be conducted within the dates specified, and a report

of the committee sent to the Dean as soon as possible after the examination. A special form for this purpose is supplied to the chairman of the committee. Such a report is the basis upon which recommendation is made to the faculty that the candidate be granted the degree sought. The period for the oral examination is usually one hour.

The examining committee also approves the thesis, and it is the candidate's obligation to see that each member of the committee has ample opportunity to examine a copy of the thesis prior to the date of the examination.

A student will not be admitted to final examination until all other requirements for the degree have been met.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Advancement to Candidacy. Candidates for the Doctor's degree must be admitted to candidacy not later than one academic year prior to the granting of the degree. Applications for admission to candidacy for the Doctor's degree must be deposited in the office of the Dean not later than the first Wednesday in October of the academic year in which the degree is sought.

The applicant must have obtained from the head of the Department of Modern Languages a statement that he possesses a reading knowledge of French and German. Preliminary examinations or such other substantial tests as the departments may elect are also required for admission to candidacy.

Residence. Three years of full-time resident graduate study are required. The first two of the three years may be spent in other institutions offering standard graduate work. On a part-time basis the time needed will be correspondingly increased. The degree is not given merely as a certificate of residence and work, but is granted only upon sufficient evidence of high attainments in scholarship and ability to carry on independent research in the special field in which the major work is done.

Major and Minor Subjects. The candidate must select a major and one or two closely related minor subjects. The minor work required varies from twenty-four to thirty hours, at the discretion of the department concerned. The remainder of the required residence is devoted to intensive study and research in the major field. The amount of required course work in the major subject will vary with the department and the individual candidate.

Thesis. The ability to do independent research must be shown by a dissertation on some topic connected with the major subject. The original typewritten copy and one clear carbon copy of the thesis, together with an abstract of the contents, 200 to 250 words in length, must be deposited in the office of the Dean at least three weeks before commencement. One or two extra copies of the thesis should be provided for use of members of the examining committee prior to the date of the final examination. The thesis is later printed in such form as the committee and the Dean may approve, and fifty copies are deposited in the University library.

A manual giving full directions for the physical make-up of the thesis is in the hands of each professor who directs thesis work, and should be consulted by the student before typing of the thesis is begun. Students may obtain copies of this manual at the Dean's office, at nominal cost.

Final Examination. The final oral examination is held before a committee appointed by the Dean. One member of this committee is a representative of the graduate faculty who is not directly concerned with the student's graduate work. One or more members of the committee may be persons from other institutions who are distinguished scholars in the student's major field.

The duration of the examination is approximately three hours, and covers the research of the candidate as embodied in his thesis, and his attainments in the fields of his major and minor subjects. The other detailed procedures are the same as those stated for the Master's examination.

RULES GOVERNING LANGUAGE EXAMINATIONS FOR CANDIDATES FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

1. A candidate for the Doctor's degree must show in a written examination that he possesses a reading knowledge of French and German. The passages to be translated will be taken from books and articles in his specialized field. Some 500 pages of text from which the applicant wishes to have his examination chosen should be submitted to the head of the Department of Modern Languages at least three days before the examination. It is not required that the candidate recognize every word of the text, but it is presumed that he will know sufficient grammar to distinguish inflectional forms, and that he will have a large enough vocabulary to give a good translation without the aid of a dictionary.

2. Application for admission to these tests must be filed in the office of the Department of Modern Languages at least three days in advance of the tests.

3. No penalty is attached to failure in the examination, and the unsuccessful candidate is free to try again at the next date set for these tests.

4. Examinations are held in the office of the Department of Modern Languages, Arts and Sciences building, on the first Wednesdays in February, June, and October, at 2 p. m.

GRADUATE FEES

The fees paid by graduate students are as follows:

A matriculation fee of \$10.00. This is paid once only, upon admission to the Graduate School.

A fixed charge, each semester, at the rate of \$4.00 per semester credit hour.

A diploma fee (Master's degree), \$10.00.

A graduation fee, including hood (Doctor's degree), \$20.00.

FELLOWSHIPS AND ASSISTANTSHIPS

Fellowships. A number of fellowships have been established by the University. A few industrial fellowships are also available in certain departments. The stipend for University fellows is \$400 for the academic year and the remission of all graduate fees except the diploma fee.

Application blanks for University fellowships may be obtained from the office of the Graduate School. The application, with the necessary credentials, is sent by the applicant directly to the Dean of the Graduate School.

Fellows are required to render minor services prescribed by their major departments. The usual amount of service required does not exceed twelve clock hours per week. Fellows are permitted to carry a full graduate program, and they may satisfy the residence requirement for higher degrees in the normal time.

The selection of fellows is made by the departments to which the fellowships are assigned, with the approval of the dean or director concerned, but all applications must first be approved by the Dean of the Graduate School. The awards of University fellowships are on a competitive basis.

Graduate Assistantships. A number of teaching and research graduate assistantships are available in several departments. The compensation for these assistantships is \$800 a year and the remission of all graduate fees except the diploma fee. Graduate assistants are appointed for one year and they are eligible to reappointment. The assistant in this class devotes one-half of his time to instruction or to research in connection with Experiment Station projects, and he is required to spend two years in residence for the Master's Degree. If he continues in residence for the Doctor's degree, he is allowed two-thirds residence credit for each academic year at this University. The minimum residence requirement from the Bachelor's degree, therefore, may be satisfied in four academic years and one summer, or three academic years and three summer sessions of eleven or twelve weeks each.

Other Assistants. Assistants not in the regular \$800 class are frequently allowed to take graduate courses if they are eligible for admission to the Graduate School. The stipend for these assistants varies with the services rendered, and it may or may not include the remission of graduate fees. The question of fees is decided in each case by the dean or director concerned when the stipend is arranged. The amount of graduate work an assistant is permitted to carry is determined by the head of the department, with the approval of the dean or director concerned. The Graduate Council, guided by the recommendation of the student's advisory committee, prescribes the required residence in each case at the time the student is admitted to candidacy.

Further information regarding assistantships may be obtained from the department or college concerned.

COMMENCEMENT

Attendance is required at the commencement at which the degree is conferred, unless the candidate is excused by the Dean of the Faculty.

SUMMER SESSION

WILLARD S. SMALL, *Director*

A Summer Session of six weeks is conducted at College Park. The program serves the needs of the following classes of students: (1) teachers and supervisors of the several classes of school work—elementary, secondary, vocational, and special; (2) regular students who are candidates for degrees; (3) graduate students; (4) special students not candidates for degrees.

Terms of Admission

The admission requirements for those who desire to become candidates for degrees are the same as for any other session of the University. Before registering, a candidate for a degree will be required to consult the Dean of the College or School in which he wishes to secure the degree. Teachers and special students not seeking a degree are admitted to the courses of the summer session for which they are qualified. All such selection of courses must be approved by the Director of the Summer Session.

Credits and Certificates

The semester hour is the unit of credit as in other sessions of the University. In the summer session, a course meeting five times a week for six weeks and requiring the standard amount of outside work has a value of two semester hours.

Courses satisfactorily completed will be credited by the State Department of Education towards satisfying certification requirements of all classes.

Summer Graduate Work

For persons wishing to do graduate work towards an advanced degree in the summer sessions, special arrangements are made supplementing the regular procedure. Teachers and other graduate students working for a degree on the summer plan must meet the same requirements as to admission, credits, scholarship, and examinations as do students enrolled in the other sessions of the University.

For detailed information in regard to the Summer Session, consult the special Summer Session announcement, issued annually in April.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

JOSEPH D. PATCH, *Lieut. Col. Infantry, U. S. Army, Professor*

RESERVE OFFICERS' TRAINING CORPS

The work in this department is based upon the provisions of Army Regulations No. 145-10, War Department.

Authorization

An infantry unit of the Senior Division of the Reserve Officers' Training Corps was established at the University under the provisions of the Act of Congress of June 3, 1916, as amended.

Organization

The unit is organized as a regiment of four battalions of three rifle companies each, and a band. All units are commanded by Advanced Course students, who have been selected for these commands on a basis of merit. The course of instruction is divided into two parts: the Basic Course and the Advanced Course.

Objectives

*Basic Course

The object of this course is to afford to students enjoying the privileges of State and Federal aided education an opportunity to be trained for positions involving leadership, within either the State or the nation. To this end the methods employed are designed to fit men mentally, physically, and morally for pursuits of peace or, if necessity requires, for national defense. A member of the R.O.T.C. is not in the Army of the United States, and membership in the unit carries no legal obligation to serve in the Army, or any of the armed forces.

**Advanced Course

The primary object of the Advanced Course is to provide military instruction and systematic training through the agency of civil educational institutions to selected students, to the end that they may qualify as reserve officers in the military forces of the United States. It is intended to attain this objective during the time the students are pursuing their general or professional studies, thus causing minimum interference to the preparatory requirements of their projected civil careers.

A student prior to enrollment in this course must have satisfactorily completed the basic course and must have indicated in writing his desire to

* Required of qualified students.
** Elective for qualified students.

undertake the course. The applicant further must obtain on this document the recommendation of both the Dean of his College and the Professor of Military Science and Tactics, and submit same to the President of the Institution for approval. No student will be enrolled in the Advanced Course without the approval of the President of the University.

Time Allotted

For first and second years, basic course, three periods a week of not less than one hour each are devoted to this work, of which at least one hour is utilized for theoretical instruction.

For third and fourth years, advanced course, elective, five periods a week of not less than one hour each are devoted to this work, of which at least three periods are utilized for theoretical instruction.

Physical Training

Physical training forms an important part of military instruction, and it is the policy of the Military Department to encourage and support the physical training given by civilian teachers, thus cooperating in an effort to promote a vigorous manhood.

Physical Examination

All members of the Reserve Officers' Training Corps are required to be examined physically at least once after entering the University.

Uniforms

Members of the Reserve Officers' Training Corps must appear in proper uniform at all military formations and at such other times as the Professor of Military Science and Tactics may designate with the approval of the President of the University.

Uniforms, or commutation in lieu of uniforms, for the Reserve Officers' Training Corps, are furnished by the Government. The uniforms are the regulation uniforms of the United States Army, with certain distinguishing features; or, if commutation of uniforms is furnished, then such uniforms as may be adopted by the University. Such uniforms must be kept in good condition by the students. They remain the property of the Government; and, though intended primarily for use in connection with military instruction, may be worn at other times unless the regulations governing their use are violated. The uniform will not be worn in part nor used while the wearer is engaged in athletic sports other than those required as a part of the course of instruction. A Basic Course uniform which is furnished to a student by the Government will be returned to the Military Department at the end of the year; or before, if a student severs his connection with the Department. In case commutation of uniforms is furnished, the uniform so purchased becomes the property of the student upon completion of two years' work.

Commutation

Students who elect the Advanced Course and who have signed the contract with the Federal Government to continue in the Reserve Officers' Training Corps for the two remaining years of the Course are entitled to a small per diem money allowance, for commutation of subsistence, payable quarterly from and including the date of contact, until they complete the course at the institution.

Summer Camps

An important and excellent feature of the Reserve Officers' Training Corps is the summer camp. In specially selected parts of the country, camps are held for a period not exceeding six weeks for students who are members of the Advanced Course Reserve Officers' Training Corps. These camps are under the close and constant supervision of army officers, and are intended primarily to give a thorough and comprehensive practical course of instruction in the different arms of the service.

Parents may feel assured that their sons are carefully watched and safeguarded. Wholesome surroundings and associates, work and healthy recreation are the keynote to contentment. Social life is not neglected, and the morale branch exercises strict censorship over all social functions.

The attendance at summer camps is compulsory only for students who are taking the advanced course, which, as has been previously stated, is elective.

Students who attend the summer camps are under no expense. The Government furnishes transportation from the institution to the camp and from the camp to the institution, or to the student's home, unless the mileage is greater than that from the camp to the institution. In this case, the amount of mileage from the camp to the institution is allowed the student. Clothing, quarters, and food are furnished. The Advanced Course students, in addition to receiving quarters and food, are paid sixty cents for each day spent in camp. To obtain credit for camp a student must be in attendance at camp at least 85 per cent of the prescribed camp period.

Commissions

(a) Each year, upon completion of the Advanced Course, students qualified for commissions in the Reserve Officers' Corps will be selected by the head of the institution and the professor of Military Science and Tactics.

(b) The number to be selected from each institution and for each arm of the service will be determined by the War Department.

(c) The University of Maryland has received a rating from the War Department of "Generally Excellent" for the past several years. This rating indicates that the work of its R. O. T. C. unit has been recognized by the Federal Government as being of a superior order. The "Generally Excellent" rating supersedes the former designation of "Distinguished College," which designation has been discontinued by the War Department for institutions such as this University.

Credits

Military instruction at this University is on a par with other university work, and the requirements of this department as to proficiency the same as those of other departments.

Students who have received military training at any educational institution under the direction of an army officer detailed as professor of military science and tactics may receive such credit as the professor of military science and tactics and the President may jointly determine.

PHYSICAL EDUCATION, RECREATION, AND ATHLETICS

The purpose of the program of physical education at the University is broadly conceived as the development of the individual student. To accomplish this purpose, physical examinations and classification tests are given the incoming students to determine the relative physical fitness of each. Upon the basis of the needs disclosed by these tests, and individual preferences, students are assigned to the various activities of the program.

Freshmen and sophomores assigned to physical education take three activity classes each week throughout the year. In the fall, soccer, touch football, and tennis are the chief activities; in the winter, basketball, volley ball, and other team games; and in the spring, track, baseball, and tennis. In addition to these team activities, sophomore students may elect a considerable number of individual sports, such as fencing, boxing, wrestling, horse-shoes, ping pong, bag punching, and the like.

An adequate program of intramural sports is conducted, also. Touch football and soccer in the fall, basketball and volleyball in the winter, baseball and track in the spring, are the chief activities in this program. Plaques, medals, and appropriate awards in all tournaments of the program are provided for the winning teams and individual members.

Every afternoon of the school session the facilities of the Physical Education Department are thrown open to all students for free unorganized recreation. Touch football, soccer, basketball, basket shooting, apparatus work, fencing, boxing, wrestling, bag punching, tennis, badminton, and ping pong are the most popular contests engaged in.

The University is particularly fortunate in its possession of excellent facilities for carrying on the activities of the program of physical education. A large modern gymnasium, a new field house, a number of athletic fields, tennis courts, baseball diamonds, running tracks, and the like, constitute the major part of the equipment.

In addition to the activities described above, the University sponsors a full program of intercollegiate athletics for men. Competition is promoted in varsity and freshman football, basketball, baseball, track, boxing, lacrosse, and tennis, which are all major sports of this program. The University is a member of the Southern Conference, the National Collegiate Athletic Association, and other national organizations for the promotion of amateur athletics.

A large athletic plant is provided solely for the program of physical education for women. The activities program assigned to freshmen and sophomores consists of seasonal sports, as follows: in the fall, hockey, tennis and soccer; in the winter, basket ball, volley ball and the various team games, rhythms, and tumbling; in the spring, tennis, badminton, indoor base ball, archery, shuffleboard, and numerous individual sports.

The Women's Athletic Association sponsors and conducts intramural tournaments throughout the year in the sport in which students at a given season are engaged. Each women's organization on the campus is represented in these tournaments, which provision affords opportunity for widespread participation.

Numerous extra-curricular clubs are sponsored with many opportunities for development of leadership. Representative student clubs are maintained in badminton, riding, swimming, archery, and golf. There is also a girls' rifle team.

The University also maintains curricula designed to train men and women students to teach physical education and coach in the high schools of the state, and to act as leaders in recreational programs in communities.

For a description of the courses in Physical Education and Recreation, see College of Education, and Section III, Description of Courses.

SCHOOL OF DENTISTRY

J. BEN ROBINSON, *Dean.*

Faculty Council

GEORGE M. ANDERSON, D.D.S., F.A.C.D.
ROBERT P. BAY, M.D., F.A.C.S.
BRICE M. DORSEY, D.D.S.
OREN H. GAVER, D.D.S., F.A.C.D.
BURT B. IDE, D.D.S., F.A.C.D.
ROBERT L. MITCHELL, Phar.D., M.D.
ALEXANDER H. PATERSON, D.D.S., F.A.C.D.
J. BEN ROBINSON, D.D.S., F.A.C.D.
LEO A. WALZAK, D.D.S.

HISTORY

The University of Maryland was organized December 28, 1807, as the College of Medicine of Maryland. On December 29, 1812, the University of Maryland charter was issued to the College of Medicine of Maryland. There were at that period but four medical schools in America—the University of Pennsylvania, founded in 1765; the College of Physicians and Surgeons of New York, in 1767; Harvard University, in 1782; and Dartmouth College, in 1797.

The first lectures on dentistry in America were delivered by Dr. Horace H. Hayden in the University of Maryland, School of Medicine, between the years 1821 and 1825. These lectures were interrupted in 1825 by internal dissension in the School of Medicine, but were continued in the year 1837. It was Dr. Hayden's idea that dentistry merited greater attention than had been given it by medical instruction, and he undertook to develop this specialty as a branch of medicine. With this thought in mind he, with the support of Dr. Chapin A. Harris, appealed to the Faculty of Physic of the University of Maryland for the creation of a department of dentistry as a part of the medical curriculum. The request having been refused, an independent college was decided upon. A charter was applied for and granted by the Maryland Legislature February 1, 1840. The first faculty meeting was held February 3, 1840, at which time Dr. H. H. Hayden was elected President and Dr. C. A. Harris, Dean. The introductory lecture was delivered by Dr. Harris on November 3, 1840, to the five students matriculated in the first class. Thus was the Baltimore College of Dental Surgery, the first and oldest dental school in the world, created as the foundation of the present dental profession.

In 1873, the Maryland Dental College, an offspring of the Baltimore College of Dental Surgery, was organized and continued instruction in dental

subjects until 1879, at which time it was consolidated with the Baltimore College of Dental Surgery. A department of dentistry was organized at the University of Maryland in the year 1882, graduating a class each year from 1883 to 1923. This school was chartered as a corporation and continued as a privately owned and directed institution until 1920, when it became a State institution. The Dental Department of the Baltimore Medical College was established in 1895, continuing until 1913, when it merged with the Dental Department of the University of Maryland.

The final combining of the dental educational interests of Baltimore was effected June 15, 1923, by the amalgamation of the student bodies of the Baltimore College of Dental Surgery and the University of Maryland, School of Dentistry, the Baltimore College of Dental Surgery becoming a distinct department of the State University under State supervision and control. Thus we find in the Baltimore College of Dental Surgery, Dental School, University of Maryland, a merging of the various efforts at dental education in Maryland. From these component elements have radiated developments of the art and science of dentistry until the strength of its alumni is second to none either in number or degree of service to the profession.

BUILDING

The School of Dentistry now occupies its new building at the northwest corner of Lombard and Greene Streets, Baltimore, adjoining the University Hospital, being so situated that it offers unusual opportunity for abundant clinic material. The new building provides approximately 45,000 square feet of floor space, is fireproof, and is ideally lighted and ventilated. A sufficient number of large lecture rooms and classrooms, a library and reading room, science laboratories, technic laboratories, clinic rooms, locker rooms, etc., are provided. The building is furnished with new equipment throughout with every accommodation necessary for satisfactory instruction under comfortable arrangements and pleasant surroundings. The large clinic wing accommodates one hundred and thirty-nine chairs. The following clinic departments have been provided: Operative, Prosthetic (including Crown and Bridge and Ceramics), Anesthesia and Surgery, Pathology, Othodontia, Pedodontia, Radiodontia, and Photography. Modern units with electric engines have been installed in all clinics, while provision has been made for the use of electric equipment in all technic laboratories.

COURSE OF INSTRUCTION

The Baltimore College of Dental Surgery, Dental School, University of Maryland offers a four-year course in dentistry devoted to instruction in the medical sciences, the dental sciences, the ancillary sciences, and clinical practice. Instruction consists of didactic lectures, laboratory instruction, demonstrations, conferences, and quizzes. Topics are assigned for collateral reading to train the student in the values and use of dental literature.

REQUIREMENTS FOR ADMISSION TO THE SCHOOL OF DENTISTRY

Applicants for admission to the dental curriculum must have completed successfully two years of work in an accredited college of arts and sciences. These credits must include not less than six semester hours each in English, Biology, and Physics, and twelve hours in Chemistry, including Organic Chemistry.

REQUIREMENTS FOR MATRICULATION

Care is observed in selecting students to begin the study of dentistry, through a strict adherence to proved ability in secondary education and in the completion of prescribed courses in predental collegiate training. The requirements for admission and the academic regulations of the College of Arts and Sciences are strictly adhered to by the School of Dentistry.

APPLICATION PROCEDURE

Application blanks may be obtained from the office of the Dean. Each applicant should fill in this blank completely and mail it, together with the application fee and photographs, to the Director of Admissions, University of Maryland, Baltimore. The notes on the reverse side of the blank should be observed carefully.

A certificate of entrance will be issued to each qualified applicant.

REQUIREMENTS FOR ADMISSION TO THE PREDENTAL COURSE

The requirement for admission is graduation from an accredited secondary school which requires for graduation a four-year course of not less than fifteen units. The equivalent in entrance examinations may be offered by a non-graduate of a secondary school.

REQUIRED: English (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total 7 units.

ELECTIVE: Agriculture, astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any other subject offered in a standard high or preparatory school for which graduation credit is granted toward college or university entrance. Eight units must be submitted from this group.

PREEDENTAL CURRICULUM

	Semesters	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
College Algebra and Analytic Geometry (Math. 8f or 21f and 22s)	3	3
General Chemistry (Chem. 1y).....	4	4
Reading and Speaking (Speech 1y).....	1	1
Invertebrate Morphology (Zool. 3f).....	4	—
Comparative Vertebrate Morphology (Zool. 4s).....	—	4
Mechanical Drawing (Dr. 4y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Freshman Lectures	—	—
Total Semester Hours.....	17	17
<i>Sophomore Year</i>		
Elementary Organic Chemistry (Chem. 8Ay and 8By).....	4	4
General Physics (Phys. 1y).....	4	4
French (French 1y or French 3y) or German (German 1y or German 3y).....	3	3
Electives (Humanities, Social Sciences).....	4	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Total Semester Hours.....	17	17

The equivalent of the above curriculum is offered in the Baltimore branch of the University.

Fees for the Predental Course

Application fee (paid at time of filing application for admission)	\$2.00
Matriculation fee (paid at the time of enrollment).....	10.00
*Tuition for the session, resident student.....	200.00
*Tuition for the session, non-resident student.....	250.00
Laboratory fee (each session).....	20.00
Locker fee (each session).....	3.00
Laboratory breakage deposit (each session).....	5.00

* Definition of residence given on page 58.

Student Activity Fee—Special

For the purpose of administering and disciplining various student activities the student body has voted a fee of \$10.00 to be paid at the opening of the school year to the treasurer of the Student Activity Committee.

Dental Curriculum

The curriculum is described in full in the bulletin of the School of Dentistry.

Transfer Students

Applicants desiring to transfer from another recognized dental school must have had creditable records at the schools previously attended.

Applicants carrying conditions or failures in any year of their previous dental instruction will not be considered. All records must show an average grade of 5% over the passing mark of the schools in which the transfer credits were earned. Applicants whose records show habitual failures and conditions will not be considered for admission. The transferring student must satisfy all requirements for admission.

Attendance Requirements

In order to receive credit for a full session, each student must have entered and be in attendance on the day the regular session opens, at which time lectures to all classes begin, and remain until the close of the session, the dates for which are announced in the calendar of the annual catalogue.

Regular attendance is demanded. Students with less than eighty-five per cent attendance in any course will be denied the privilege of final examination in any and all such courses. In certain unavoidable circumstances of absence the Dean may honor excuses, but students with less than eighty-five per cent attendance will not be promoted to the next succeeding class.

In cases of serious illness, as attested by a physician, students may register not later than the twentieth day following the advertised opening of the regular session. Students may register and enter not later than ten days after the beginning of the session, but such delinquency will be charged as absences from classes.

Promotion

To be promoted to the next succeeding year students must have passed courses amounting to at least 80 per cent of the total schedule hours of the year, and must have an average of 80 per cent on all subjects passed.

A grade of 75 per cent is passing. A grade between 60 per cent and passing is a condition. A grade below 60 per cent is a failure. A condition may be removed by a reexamination. In such effort, failure to make a passing mark is recorded as a failure in the course. A failure can be re-

moved only by repeating the course. Students with combined conditions and failures amounting to 40 per cent of the schedule hours of the year will not be permitted to proceed with their classes. Students carrying conditions will not be admitted to senior standing; students in all other classes may carry one condition to the next succeeding year. All conditions and failures must be removed within twelve months from the time at which they were incurred.

Equipment

A complete list of necessary instruments and materials for technic and clinic courses, and text books for lecture courses will be announced for the various classes. Each student will be required to provide himself with whatever is necessary to meet the needs of his course, and present same to an assigned instructor for inspection. No student will be permitted to go on with his class who does not meet this requirement.

Department

The profession of dentistry demands, and the School of Dentistry requires evidence of good moral character of its students. The conduct of the student in relation to his work and fellow students will indicate his fitness to be taken into the confidence of the community as a professional man. Integrity, sobriety, temperate habits, truthfulness, respect for authority and associates, and honesty in the transaction of business affairs as a student will be considered as evidence of good moral character necessary to the granting of a degree.

Requirements for Graduation

The degree of Doctor of Dental Surgery is conferred upon a candidate who has met the following conditions:

1. A candidate must furnish documentary evidence that he has attained the age of 21 years.
2. A candidate for graduation shall have attended the full four-year course of study of the dental curriculum, the last year of which shall have been spent in this institution.
3. He will be required to show a general average of at least 80 per cent during the full course of study.
4. He shall have satisfied all technic and clinic requirements of the various departments.
5. He shall have paid all indebtedness to the college prior to the beginning of final examinations, and must have adjusted his financial obligations in the community satisfactorily to those to whom he may be indebted.

FEES FOR THE DENTAL COURSE

Application fee (paid at time of filing formal application for admission)	\$2.00
Matriculation fee (paid at time of enrollment).....	10.00
*Tuition for the session, resident student.....	250.00
*Tuition for the session, non-resident student.....	350.00
Dissecting fee (first semester, freshman year).....	15.00
Laboratory fee (each session).....	20.00
Locker fee—freshman and sophomore years (first semester).....	3.00
Locker fee—junior and senior years (first semester).....	5.00
Laboratory breakage deposit—freshman and sophomore years (first semester)	5.00
Graduation fee (paid with second semester fees of senior year).....	15.00
Penalty fee for late registration.....	5.00
Examinations taken out of class and reexaminations.....	5.00
One certified transcript of record will be issued to each student free of charge. Each additional copy will be issued only on payment of	1.00

Student Activity Fee—Special

For the purpose of administering and disciplining various student activities the student body has voted a fee of \$10.00 to be paid at the opening of the school year to the treasurer of the Student Activity Committee.

Registration

The registration of a student in any school or college of the University shall be regarded as a registration in the University of Maryland, but when such student transfers to a professional school of the University or from one professional school to another, he must pay the usual matriculation fee required by each professional school.

A student who neglects or fails to register prior to or within the day or days specified for his school, will be called upon to pay a fine of \$5.00. The last day of registration with fine added to regular fees is Saturday at noon of the week in which instruction begins, following the specified registration period. (This rule may be waived only on the written recommendation of the Dean.)

Each student is required to fill in a registration card for the office of the Registrar, and pay to the Comptroller one-half of the tuition fee in addition to all other fees noted as payable first semester before being admitted to class work at the opening of the session. The remainder of tuition and second semester fees must be in the hands of the Comptroller on the registration day for the second semester.

According to the policy of the School of Dentistry no fees will be returned. In case the student discontinues his course, any fees paid will be credited to a subsequent course, but are not transferable.

The above requirements will be rigidly enforced.

* Definition of residence given on page 58.

Definition of Resident Status of Student

Students who are minors are considered to be resident students if, at the time of their registration their parents* have been residents of this State for at least one year.

Adult students are considered to be resident students if, at the time of their registration, they have been residents of this state for at least one year; provided such residence has not been acquired while attending any school or college in Maryland.

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 this state by maintaining such residence for at least one full calendar year. However, the right of the student (minor) to change from a non-resident to a resident status must be established by him prior to registration for a semester in any academic year.

Summer Courses

Aside from and independent of the regular session, special courses are offered during the summer recess. The course in clinical instruction is conducted from June 1 to August 1 and from September 1 to 17 inclusive. The course is open only to students registered in the school. It offers opportunities to students carrying conditions in the clinic from the preceding session as well as those who desire to gain more extended practice during their training period. The clinics are under the direction of capable demonstrators, full credit being given for all work done.

The Gorgas Odontological Society

The Gorgas Odontological Society was organized in 1916 as an honorary student dental society with scholarship as a basis for admission. The society is named after Dr. Ferdinand J. S. Gorgas, a pioneer in dental education, a teacher of many years experience, and during his life a great contributor to dental literature. It was with the idea of perpetuating his name that the society adopted it.

Students become eligible for membership at the beginning of their junior year if, during their preceding years of the dental course, they have attained a general average of 85 per cent or more in all of their studies. Meetings are held once each month, and are addressed by prominent dental and medical men, an effort being made to obtain speakers not connected with the University. The members have an opportunity, even while students, to hear men associated with other educational institutions.

* The term "parents" includes persons who, by reason of death or other unusual circumstances, have been legally constituted the guardians of or stand in loco parentis to such minor students.

Omicron Kappa Upsilon

Phi Chapter of Omicron Kappa Upsilon honorary dental fraternity was chartered at the Baltimore College of Dental Surgery, Dental School, University of Maryland, during the session of 1928-1929. Membership in the fraternity is awarded to a number not exceeding twelve per cent of the graduating class. This honor is conferred upon students who through their professional course of study creditably fulfill all obligations as students, and whose conduct, earnestness, evidence of good character, and high scholarship recommend them to election.

Scholarship Loans

A number of scholarship loans from various organizations and educational foundations have been available to students in the School of Dentistry. These loans are offered on the basis of excellence in scholastic attainment and the need on the part of students for assistance in completing their course in dentistry. It has been the policy of the Faculty to recommend only students in the last two years for such privileges.

The Henry Strong Educational Foundation—From this fund, established under the will of General Henry Strong, of Chicago, an annual allotment is made to the Baltimore College of Dental Surgery, Dental School, University of Maryland, for scholarship loans available for the use of young men and women students under the age of twenty-five. Recommendations for the privileges of these loans are limited to students in the junior and senior years. Only students who through stress of circumstances require financial aid and who have demonstrated excellence in educational progress are considered in making nominations to the secretary of this fund.

The Edward S. Gaylord Educational Endowment Fund—Under a provision of the will of the late Dr. Edward S. Gaylord, of New Haven, Conn., an amount approximating \$16,000 was left to the Baltimore College of Dental Surgery, Dental School, University of Maryland, the proceeds of which are to be devoted to aiding worthy young men in securing dental education.

Alumni Association

The first annual meeting of the Society of the Alumni of the Baltimore College of Dental Surgery was held in Baltimore, March 1, 1849. This organization has continued in existence to the present, its name having been changed to The National Alumni Association of the Baltimore College of Dental Surgery, Dental School, University of Maryland.

THE SCHOOL OF LAW

ROGER HOWELL, *Dean*

THE FACULTY COUNCIL

HON. HENRY D. HARLAN, A.M., LL.B., LL.D.
RANDOLPH BARTON, JR., ESQ., A.B., LL.B.
EDWIN T. DICKERSON, ESQ., A.M., LL.B.
CHARLES MCHENRY HOWARD, ESQ., A.B., LL.B.
HON. MORRIS A. SOPER, A.B., LL.B.
HON. W. CALVIN CHESNUT, A.B., LL.B.
G. RIDGELY SAPPINGTON, ESQ., LL.B.
ROGER HOWELL, ESQ., A.B., Ph.D., LL.B.
EDWIN G. W. RUGE, ESQ., A.B., LL.B.
G. KENNETH REIBLICH, A.B., Ph.D., J.D., LL.M.
JOHN S. STRAHORN, JR., A.B., LL.B., S.J.D., J.S.D.

While the first faculty of law of the University of Maryland was chosen in 1813, and published in 1817 "A Course of Legal Study Addressed to Students and the Profession Generally," which the North American Review pronounced to be "by far the most perfect system for the study of law which has ever been offered to the public," and which recommended a course of study so comprehensive as to require for its completion six or seven years, no regular school of instruction in law was opened until 1823. The institution thus established was suspended in 1836 for lack of proper pecuniary support. In 1869 the School of Law was reorganized, and in 1870 regular instruction therein was again begun. From time to time the course has been made more comprehensive, and the staff of instructors increased in number. Its graduates now number more than three thousand, and included among them are a large proportion of the leaders of the Bench and Bar of the State and many who have attained prominence in the profession elsewhere.

The Law School has been recognized by the Council of the Section of Legal Education of the American Bar Association as meeting the standards of the American Bar Association, and has been placed upon its approved list.

The Law School is a member of the Association of American Law Schools, an association composed of the leading law schools in the United States, member schools being required to maintain certain high standards relating to entrance requirements, faculty, library, and curriculum.

The Law School is also registered as an approved school on the New York Regents' list.

The Law School Building, erected in 1931, is located at Redwood and Greene Streets in Baltimore. In addition to classrooms and offices for

the Law faculty, it contains a large auditorium, practice-court room, students' lounge and locker rooms, and the law library, the latter containing a collection of carefully selected text-books, English and American reports, leading legal periodicals, digests, and standard encyclopedias. No fee is charged for the use of the library, which is open from 9.00 A. M. to 10.30 P. M., except on Saturday, when it closes at 5.00 P. M.

Course of Instruction

The School of Law is divided into two divisions, the Day School and the Evening School. The same curriculum is offered in each school, and the standards of work and graduation requirements are the same.

The Day School course covers a period of three years of thirty-two weeks each, exclusive of holidays. The class sessions are held during the day, chiefly in the morning hours. The Practice Court sessions are held on Monday evenings from 8.00 to 10.00 P. M.

The Evening School course covers a period of four years of thirty-six weeks each, exclusive of holidays. The class sessions are held on Monday, Wednesday, and Friday evenings of each week from 6.30 to 9.30 P. M. This plan leaves the alternate evenings for study and preparation by the student.

The course of instruction in the School of Law is designed thoroughly to equip the student for the practice of his profession when he attains the Bar. Instruction is offered in the various branches of the common law, of equity, of the statute law of Maryland, and of the public law of the United States. The course of study embraces both the theory and practice of the law, and aims to give the student a broad view of the origin, development, and function of law, together with a thorough practical knowledge of its principles and their application. Analytical study is made of the principles of substantive and procedural law, and a carefully directed practice court enables the student to get an intimate working knowledge of procedure.

Special attention is given to the statutes in force in Maryland, and to any peculiarities of the law in that State, where there are such. All of the subjects upon which the applicant for the Bar in Maryland is examined are included in the curriculum. But the curriculum includes all of the more important branches of public and private law, and is well designed to prepare the student for admission to the Bar of other States.

Requirements for Admission

The requirements for admission are those of the Association of American Law Schools. Applicants for admission as candidates for a degree are required to produce evidence of the completion of at least two years of college work; that is, the completion of at least one-half the work acceptable for a Bachelor's degree granted on the basis of a four-year period of study by the University of Maryland or other principal college or university in this State.

To meet this requirement, a candidate for admission must present at least sixty semester hours (or their equivalent) of college work taken in an institution approved by standard regional accrediting agencies and exclusive of

credit earned in non-theory courses in military science, hygiene, domestic arts, physical education, vocal or instrumental music, or other courses without intellectual content of substantial value. Such pre-legal work must have been done in residence, no credit being allowed for work done in correspondence or extension courses, and must have been passed with a scholastic average at least equal to the average required for graduation in the institution attended.

In compliance with the rules of the Association of American Law Schools, a limited number of special students, not exceeding 10 per cent of the average number of students admitted as beginning regular law students during the two preceding years, applying for admission with less than the academic credit required of candidates for the law degree, may be admitted as candidates for the certificate of the school, but not for the degree, where, in the opinion of the Faculty Council, special circumstances, such as the maturity and apparent ability of the student, seem to justify a deviation from the rule requiring at least two years of college work. Such applicants must be at least twenty-three years of age and specially equipped by training and experience for the study of law.

Combined Program of Study Leading to the Degrees of Bachelor of Arts and Bachelor of Laws

The University offers a combined program in arts and law leading to the degrees of Bachelor of Arts and Bachelor of Laws.

Students pursuing this combined program in college and pre-legal subjects will spend the first three years in the College of Arts and Sciences at College Park. The fourth year they will register in the School of Law, and upon the successful completion of the work of the first year in the Day School, or the equivalent work in the Evening School, the degree of Bachelor of Arts will be awarded. The degree of Bachelor of Laws will be awarded upon the completion of the work prescribed for graduation in the School of Law.

Details of the combined course may be had upon application to the Registrar, University of Maryland, College Park, Md., or by reference to page 120.

Advanced Standing

Students complying with the requirements for admission to the school who have, in addition, successfully pursued the study of law elsewhere in a law school which is either a member of the Association of American Law Schools or approved by the American Bar Association, may, in the discretion of the Faculty Council, upon presentation of a certificate from such law school showing an honorable dismissal therefrom, and the successful completion of equivalent courses therein, covering at least as many hours as are required for such subjects in this school, receive credit for such

courses and be admitted to advanced standing. No credit will be given for study pursued in a law office, and no degree will be conferred until after one year of residence and study at this school.

Fees and Expenses

The charges for instruction are as follows:

Registration fee to accompany application.....	\$ 2.00
Matriculation fee, payable on first registration.....	10.00
Diploma fee, payable upon graduation.....	15.00

Tuition fee, per annum:

Day School	\$200.00
Evening School	150.00

An additional tuition fee of \$50.00 per annum must be paid by students who are non-residents of the State of Maryland.

The tuition fee is payable in two equal instalments, one-half at the time of registration for the first semester, and one-half at the time of registration for the second semester.

Further information and a special catalogue of the School of Law may be had upon application to the School of Law, University of Maryland, Redwood and Greene Streets, Baltimore, Md.

THE UNIVERSITY OF MARYLAND
SCHOOL OF MEDICINE
AND
COLLEGE OF PHYSICIANS AND SURGEONS

J. M. H. ROWLAND, *Dean*

MEDICAL COUNCIL

ARTHUR M. SHIPLEY, M.D., Sc.D.
J. M. H. ROWLAND, M.D., Sc. D., LL.D.
HUGH R. SPENCER, M.D.
H. BOYD WYLIE, M.D.
CARL L. DAVIS, M.D.
MAURICE C. PINCOFFS, B.S., M.D.
FRANK W. HACHTEL, M.D.
EDWARD UHLENHUTH, Ph.D.
CLYDE A. CLAPP, M.D.
JOHN C. KRANTZ, JR., Ph.D.
WALTER D. WISE, M.D.
J. MASON HUNDLEY, JR., M.A., M.D.
WILLIAM R. AMBERSON, Ph.D.
LOUIS H. DOUGLASS, M.D.

The School of Medicine of the University of Maryland is one of the oldest foundations for medical education in America, ranking fifth in point of age among the medical colleges of the United States. In the school building at Lombard and Greene Streets in Baltimore was founded one of the first medical libraries and the first medical college library in the United States.

Here for the first time in America dissecting was made a compulsory part of the curriculum; here instruction in Dentistry was first given (1837); and here were first installed independent chairs for the teaching of diseases of women and children (1867), and of eye and ear diseases (1873).

This School of Medicine was one of the first to provide for adequate clinical instruction by the erection in 1823 of its own hospital, and in this hospital intramural residency for senior students first was established.

Clinical Facilities

The University Hospital, property of the University, is the oldest institution for the care of the sick in Maryland. It was opened in September, 1823, and at that time consisted of four wards, one of which was reserved for eye cases.

Besides its own hospital, the School of Medicine has control of the clinical facilities of the Mercy Hospital, in which were treated last year 19,089 persons.

In connection with the University Hospital, an outdoor obstretical clinic is conducted. During the past year 1,632 cases were delivered in the University Hospital and under supervision in the Outdoor Clinic.

The hospital now has about 400 beds—for medical, surgical, obstretical, and special cases; and furnishes an excellent supply of clinical material for third-year and fourth-year students.

Dispensaries and Laboratories

The dispensaries associated with the University Hospital and Mercy Hospital are organized on a uniform plan in order that teaching may be the same in each. Each dispensary has departments of Medicine, Surgery, Oncology, Eye and Ear, Genito-Urinary, Gynecology, Gastro-Enterology, Oral Surgery, Cardiology, Pediatrics, Neurology, Orthopedics, Proctology, Dermatology, Throat and Nose, and Tuberculosis. All students in their junior year work two hours daily for ten weeks in one of these dispensaries; all students in the senior year work one hour each day; 103,143 cases were treated last year, which fact gives an idea of the value of these dispensaries for clinical teaching.

Laboratories conducted by the University purely for medical purposes are as follows: Gross Anatomy, Histology and Embryology, Physiology, Bacteriology and Immunology, Biological Chemistry, Pharmacology, Pathology, Clinical Pathology, and Operative Surgery.

Prizes and Scholarships

The following prizes and scholarships are offered in the School of Medicine. (For details see School of Medicine Bulletin.)

Faculty Medal; Dr. A. Bradley Gaither Prize; Dr. Samuel Leon Frank Scholarship; Hitchcock Scholarships; Randolph Winslow Scholarship; University Scholarship; Frederica Gehrmann Scholarship; Dr. Leo Karlinsky Memorial Scholarship; Clarence and Genevra Warfield Scholarships; Israel and Cecelia A. Cohen Scholarship, and Dr. Horace Bruce Hetrick Scholarship.

Requirements for Admission

The minimum requirements for admission to the School of Medicine are as follows:

- (a) Graduation from an approved secondary school, or the equivalent in entrance examinations, and
- * (b) Three years of acceptable premedical credit earned in an approved college of arts and sciences. The quantity and quality of this pre-professional course of study shall be not less than that required for recommendation by the institution in which the premedical courses are being, or have been, studied.

* For admission to the Premedical Curriculum the requirements are the same as for the freshman class in the College of Arts and Sciences of the University with the prescribed addition of two years of one foreign language. (See Section I, Entrance.)

The premedical curriculum shall include basic courses in

- English
- Biology (Invertebrate and Vertebrate Zoology are preferred to General Biology)
- Inorganic Chemistry
- Organic Chemistry
- Physics
- French or German,

and such elective courses as will complete a balanced three year schedule of study.

The elective courses should be taken from the following three groups:

<i>Humanities</i>	<i>Natural Sciences</i>	<i>Social Sciences</i>
English	Comparative Vertebrate	Economics
Scientific German, or	Anatomy	History
French (A reading	Embryology	Political Science
knowledge of either	Physical Chemistry or	Psychology
language is desirable,	Quantitative Analy-	Sociology, etc.
although German is	sis (Physical Chemis-	
preferred)	try preferred)	
Philosophy	Mathematics	
	Histological Technic*	

Not less than 36 semester hours (or the equivalent in quarter or session hours, or courses) should be taken in the humanities and social sciences.

Wherever possible, a premedical student should complete a four-year curriculum and earn the baccalaureate degree.

In accepting candidates for admission, preference will be given to those applicants who have high scholastic records in secondary school and college; satisfactory scores in the Moss Aptitude Test (which is given each fall by the Association of American Medical Colleges in the institutions that are preparing students for medicine); the most favorable letters of recommendation from their respective premedical committees, or from one instructor in each of the departments of biology, chemistry, and physics; and who in all other respects give every promise of becoming successful students and physicians of high standing.

Application blanks may be secured by addressing the Committee on Admissions, School of Medicine, University of Maryland, Baltimore. Applications for admission will be received beginning October 1, 1938.

Candidates for admission who are accepted will receive certificates of entrance from the Director of Admissions of the University.

*Should not be taken in a three-year premedical preparation.

Expenses

*The following are the fees for students in the School of Medicine:

<i>Matriculation</i>	<i>Resident—Non-Resident</i>	<i>Laboratory</i>	<i>Graduation</i>
\$10.00 (only once)	\$450.00	\$600.00	\$25.00 (yearly)
			\$15.00

Estimated living expenses for students in Baltimore:

<i>Items</i>	<i>Low</i>	<i>Average</i>	<i>Liberal</i>
Books	\$50	\$75	\$100
College Incidentals	20	20	20
Board, eight months.....	200	250	275
Room rent	64	80	100
Clothing and Laundry.....	50	80	150
All other expenses.....	25	50	75
Total.....	\$409	\$556	\$720

*The above tuition fees applicable until the end of the session 1937-1938 only. The right is reserved to make changes in these fees whenever the authorities deem them expedient.

SCHOOL OF NURSING

ANNIE CRIGHTON, R.N., *Director and Superintendent of Nurses*

The University of Maryland School for Nurses was established in the year 1889. Since that time it has been an integral part of the University of Maryland, coming under the same government. The school is non-sectarian, the only religious services being morning prayers.

The new University of Maryland Hospital is a general hospital, containing about 400 beds. It is equipped to give young women a thorough course of instruction and practice in all phases of nursing.

Programs Offered

The program of study of the school is planned for two groups of students: (a) the three-year group and (b) the five-year group.

Requirements for Admission

A candidate for admission must be a graduate of an accredited high school or other recognized preparatory school, and must present record showing that she has completed satisfactorily the required amount of preparatory study. Preference will be given to students who rank in the upper third of the graduating classes in their preparatory schools.

Candidates are required to present 15 units for entrance: required (7), and elective (8) units.

Required: English (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total, 7 units.

Elective: Astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any other subject offered in a standard high school or preparatory school for which graduation credit is granted toward college or university entrance. Eight units must be submitted from this group, of which not more than four units can pertain to vocational subjects.

In addition to the above requirements, students must meet certain other definite requirements in regard to health, age, and personal fitness for nursing work.

The preferable age for students registering for the three-year course is 20 to 35 years, although students may be accepted at the age of 18. Women of superior education and culture are given preference, provided they meet the requirements in other particulars. If possible a personal interview with the Director of the School should be arranged on Tuesday or Friday from 11:00 A. M. to 12:00 M.

Blank certificates will be furnished upon application to the Director of the School of Nursing, University of Maryland Hospital, Baltimore, Maryland.

Registration With Maryland State Board of Examiners of Nurses

By regulation of the Maryland State Board of Examiners of Nurses, all students entering schools of nursing in Maryland must, at the beginning of their course, register with the Board in order to be eligible for examination and license on completion of this course.

The fitness of the applicant for the work and the propriety of dismissing or retaining her at the end of her term of probation are left to the decision of the Director of the School. Misconduct, disobedience, insubordination, inefficiency, neglect, and failure to develop those qualities considered essential in a nurse, are causes for dismissal at any time by the President of the University.

The requirements for admission to the five-year program of the School of Nursing are the same as for other colleges. (Special catalogue will be sent upon request.) The three-year program is designed to meet the requirements for the diploma in Nursing, and comprises the work of the first, second, and third hospital years.

Admission to the School

Students for the spring term are admitted in February, and those for the fall term in September or October, and the five year course in September.

Hours of Duty

During the preparatory period the students are engaged in class work for the first four months with no general duty in the hospital, and for the remainder of this period they are sent to the wards on eight-hour duty. During the first, second, and third years the students are on eight-hour day duty and nine-hour night duty, with six hours on holidays and Sundays. The night-duty periods are approximately two months each, with one day at the termination of each term for rest and recreation. The period of night duty is approximately five to six months during the three years.

The first four months of the preparatory period are devoted to theoretical instruction given entirely in the lecture and demonstration rooms of the training school, hospital, and medical school laboratories. The average number of hours per week in formal instruction, divided into lecture and laboratory periods, is 30 hours. This instruction includes courses in anatomy, physiology, cookery and nutrition, dosage and solution, hygiene, bacteriology, chemistry, materia medica, practical nursing, bandaging, ethics, and history of nursing. During the last two months of the probation period the students are placed on duty in the hospital wards for instruction in bedside nursing, and are expected to perform the duties assigned to them by the Director of the School. At the close of the first semester the students are required to pass satisfactorily both the written and the

practical tests; failure to do so will be sufficient reason for terminating the course at this point.

Sickness

A physician is in attendance each day, and when ill all students are cared for gratuitously. The time lost through illness in excess of two weeks, during the three years, must be made up. Should the authorities of the school decide that through the time lost the theoretical work has not been sufficiently covered to permit the student to continue in the current year, it will be necessary for her to continue her work with the next class.

Vacations

Vacations are given between June and September. A period of four weeks is allowed the student at the completion of the first year, and the second year.

Expenses

A fee of \$50.00, payable on entrance, is required from each student. A student activity fee of \$5.00 is to be paid each year at the beginning of the first semester by each student. These will not be returned. A student receives her board, lodging, and a reasonable amount of laundry from the date of entrance. During her period of probation she provides her own uniforms, obtained through the hospital at a nominal cost. After being accepted as a student nurse, she wears the uniform supplied by the hospital. The student is also provided with text-books and shoes. Her personal expenses during the course of training and instruction will depend entirely upon her individual habits and tastes.

GENERAL PLAN OF INSTRUCTION

The course of instruction covers a period of three years, including the preliminary term of six months. The course of instruction is, in general, as follows:

First Year

First Semester

The first semester, or preliminary term, is devoted to theoretical instruction given in the class rooms of the Nursing School and in lecture rooms and laboratories of the Medical School, and to supervised practice in the wards of the hospital. The courses offered are anatomy, physiology, cookery and nutrition, dosage and solutions, chemistry, bacteriology, hygiene, history of nursing, ethics, psychology, principles and practice of nursing, bandaging and surgical supplies.

Excursions are made to the filtration plant, hygienic dairies, markets, and other places of interest.

At the close of the first semester the students are required to pass satisfactorily both written and practical tests. Failure to do this will be sufficient reason to terminate the course at this period.

Second Semester

During this term the students receive theoretical instruction in general surgery, surgical technic, massage, diet therapy, materia medica, advanced nursing procedures and charting, and the case study method. Ward assignments and instruction provide experience in medical, surgical, gynecological and urological nursing, also in the diet school and outpatients department. This experience is under the direction and supervision of the supervisors of the departments.

Second Year

During this period the theoretical instruction includes general medicine, clinical pathology, venereal and skin diseases, x-ray, radium, communicable diseases, pediatrics, obstetrics, gynecology, orthopedics, and diseases of eye, ear, nose, and throat. The hospital assignment here provides instruction and experience on the public wards, on the private floors, and in the operating room.

Third Year

During the third year the theoretical instruction includes psychiatry, public health, professional problems, and survey of the nursing field. The assignments include experience in psychiatric nursing, in public health nursing, in obstetrics and pediatrics.

Attendance at Classes

Attendance is required at all classes for each course for which the student is registered. Absences are excused only in cases of illness or absence from the school.

Examinations

These are both written and oral, and include practical tests. Failure in two or more subjects may necessitate increasing the length of the course.

During the three years of nursing experience in the various departments of the hospital, a monthly record of the student's nursing work is submitted by the nurse in charge. The student's standing is based upon the examinations in the theoretical subjects and these monthly records.

Graduation

The diploma of the school will be awarded to those who have successfully completed the required course of three years, and have maintained the required average in each course and phase of work.

Five-Year Program

In addition to the regular three-year course of training, the University offers a combined Academic and Nursing program leading to the degree of Bachelor of Science and a Diploma in Nursing.

The first two years of the course (or prehospital period), consisting of 68 semester hours, are spent in the College of Arts and Sciences of the University, during which period the student has an introduction to the

general cultural subjects which are considered fundamental in any college training. At least the latter of these two years must be spent in residence at College Park. The last three years are spent in the School of Nursing in Baltimore.

The degree of Bachelor of Science and the Diploma in Nursing are conferred upon students who complete successfully the prescribed combined academic and nursing program, maintaining the required averages in both branches of the course.

Scholarships

One scholarship has been established by the Alumnae of the Training School, which entitles a nurse to a six week's course at Teachers College, Columbia University, New York. This scholarship is awarded at the close of the third year to the student whose work has been of the highest excellence, and who desires to pursue graduate study and special work. There are two scholarships of the value of \$50.00 each: the Edwin and Leander M. Zimmerman prize for practical nursing and for displaying the greatest interest and sympathy for the patients; and the Elizabeth Collins Lee prize, given to the student having the second highest average in scholarship. An alumnae pin is presented by the Women's Auxiliary Board to a student who at the completion of three years shows marked executive ability. A prize of \$25.00 is given by Mrs. John L. Whitehurst to a student who at the completion of three years shows exceptional executive ability.

SCHOOL OF PHARMACY

A. G. DU MEZ, *Dean*

FACULTY COUNCIL

A. G. DU MEZ, Ph.G., B.S., M.S., Ph.D.
WALTER H. HARTUNG, B.A., Ph.D.
E. F. KELLY, Phar.D. Sc..D
MARVIN R. THOMPSON, Ph.G., B.S., Ph.D.
J. CARLTON WOLF, B.Sc., Phar.D.
B. OLIVE COLE, Phar.D., LL.B.
H. E. WICH, Phar.D.

The School of Pharmacy began its existence as the Maryland College of Pharmacy. The latter was organized in 1841, and operated as an independent institution until 1904, when it amalgamated with the group of professional schools in Baltimore then known as the University of Maryland. It became a department of the present University when the old University of Maryland was merged with the Maryland State College in 1920. With but one short intermission, just prior to 1865, it has continuously exercised its function as a teaching institution.

Location

The School of Pharmacy is located at Lombard and Greene Streets, in close proximity to the Schools of Medicine, Law, and Dentistry.

AIMS

The School of Pharmacy provides systematic instruction in pharmacy, the collateral sciences, and such other subjects as are deemed to be essential in the education of a pharmacist. Its chief aim is to prepare its matriculants for the intelligent practice of dispensing pharmacy, but it also offers the facilities and instruction necessary for the attainment of proficiency in the practice of the other branches of the profession and in pharmaceutical research.

Combined Curriculum in Pharmacy and Medicine

The combined course in Pharmacy and Medicine leading to the degree of Bachelor of Science in Pharmacy was discontinued in 1936.

Students now in the University who have elected the combined course may be granted the degree of Bachelor of Science upon completion of the first three years of the required work of the pharmacy curriculum, together with four semester hours in vertebrate zoology and the first three years of the work in medicine.

Students who hereafter desire to obtain the degree of Bachelor of Science may do so by acquiring in summer school the additional credit in the arts and sciences required for a combined degree (90 semester hours).

To become eligible to take the medical work of the combined course, students must have completed the above work in pharmacy and the arts and sciences with an average grade of B or better. In addition, they must meet the other requirements for admission to the School of Medicine.

Recognition

This school holds membership in the American Association of Colleges of Pharmacy. The object of the Association is to promote the interests of pharmaceutical education; and all institutions holding membership must maintain certain minimum requirements for entrance and graduation. Through the influence of this Association, uniform and higher standards of education have been adopted from time to time; and the fact that several States by law or by Board ruling recognize the standards of the Association is evidence of its influence.

The school is registered in the New York Department of Education, and its diploma is recognized in all States.

REQUIREMENTS FOR ADMISSION*

The requirements for admission meet fully those prescribed by the American Association of Colleges of Pharmacy.

ADMISSION TO FRESHMAN CLASS FROM SECONDARY SCHOOLS

An applicant from a secondary school may be admitted either by certificate, or by examination, or by a combination of the two methods.

Admission by Certificate

An applicant must be a graduate of a secondary school which is approved by the State Board of Education of Maryland or by an accredited agency of at least equal rank, and which requires for graduation not less than 15 units, grouped as follows:

Distribution Of Units Between Required and Elective Subjects: Required subjects 7 units, electives 8 units, total, 15 units.

Required Subjects: English, (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total, 7 units.

Elective Subjects: agriculture, astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any subject offered in a standard high or preparatory school for which graduation credit is granted toward college or university entrance. Total, 8 units.

*The right is reserved to refuse admission even to applicants with sufficient scholastic credit if their presence in the School would in the judgment of the Faculty Council be detrimental to the best interests of the School.

A unit represents a year's study in any subject in a secondary school, and constitutes approximately one-fourth of a full-year's work. It presupposes a school year of 36 to 40 weeks, recitation periods of from 40 to 60 minutes, and for each study four or five class exercises a week. Double laboratory periods in any science or vocational study are considered as equivalent to one class exercise. Normally, not more than three units are allowed for four years of English. If, however, a fifth course has been taken, an extra unit will be granted.

A graduate of an approved secondary school in Maryland who meets the State certification requirements will be admitted upon presentation of the proper certificate from the principal. A graduate who does not meet fully these requirements may be required to present further evidence of ability to undertake college work. At the discretion of the Director of Admissions, this may include an appropriate examination. Such examination will be given during the first week of each of the months of July, August, and September at Baltimore and other convenient places in the State. Applicants concerned will be notified when and where to report.

An applicant for admission by certificate from a secondary school not located in Maryland must be recommended by the principal, and must have attained the certification-to-college grade of the school. If the school does not have such a quality grade, then the average of the applicant's school grades must be at least ten points or one letter higher than the lowest passing grade of the school.

Admission by Examination

An applicant from a secondary school who is not eligible for admission by certificate may seek entrance through either of two types of examination: (1) he may appeal to the Director of Admissions for permission to report at the University for an examination, the result of which will be used in conjunction with the secondary school record to determine whether the applicant should be admitted, or (2) he may be admitted on presenting evidence of having passed satisfactorily other approved examinations in the subjects required for graduation from an accredited secondary school. Such examinations are offered by the College Entrance Examination Board, 431 West 117th Street, New York City, the Regents of the University of the State of New York, Albany, and the Department of Public Instruction of the State of Pennsylvania, Harrisburg.

Applications for admission must be approved, not only by the Director of Admissions, but also by the Committee on Admissions of the Faculty Council of the School of Pharmacy.

ADMISSION WITH ADVANCED STANDING

A student who presents, in addition to high school requirements, credit for work done in a school of pharmacy holding membership in the American Association of Colleges of Pharmacy will receive credit for the courses which correspond in length and content to those prescribed for the first

three years of the curriculum and be admitted with advanced standing, provided he presents an official transcript of his record and a proper certificate of honorable dismissal.

Credit for general educational subjects will be given to a student presenting evidence of having completed work in an accredited academic institution equal in value to that outlined in this catalogue.

A transferring student in either case must satisfy the preliminary educational requirements outlined under "Requirements for Admission to Freshman Class from Secondary School."

SPECIAL STUDENTS

An applicant who cannot furnish sufficient entrance credit and who does not desire to make up the units in which he is deficient may enter as a special student and pursue all the branches of the curriculum, but will not be eligible for graduation and will not receive a diploma. The Faculty Council reserves the right to decide whether or not the preliminary training of the applicant is sufficient.

REQUIREMENTS FOR GRADUATION

The degree of Bachelor of Science in Pharmacy (B.S. in Pharm.) will be conferred upon a candidate who has met the following requirements:

1. Completion of the full prescribed curriculum. The work of the last year must have been in courses offered in this school, and must have been done in residence at this school.
2. A total semester hour credit of not less than 140, with a grade point count for the last two years of not less than twice the total semester hours of credit scheduled for that period.

MATRICULATION AND REGISTRATION

The matriculation ticket must be procured from the office of the School of Pharmacy, and must be taken out before one enters classes. After matriculation, all students are required to register at the office of the Director of Admissions. The last date of matriculation is Sept. 22, 1938.

Expenses

Matriculation	Tuition		Laboratory and	Graduation
	Resident	Non-Resident	Breakage	
\$10.00 (only once)	\$200.00	\$250.00	\$60.00 (yearly)	\$15.00

Tuition for the first semester and laboratory and breakage fee shall be paid to the Comptroller at the time of registration; and tuition for the second semester and graduation fee (the latter returned in case of failure) on or before Jan. 31, 1939.

A bulletin giving details of the course in Pharmacy may be obtained by addressing the School of Pharmacy, University of Maryland, Baltimore, Maryland.

STATE BOARD OF AGRICULTURE

816 Fidelity Building, Baltimore, Maryland.

H. C. Byrd.....Executive Officer
F. K. Haszard.....Executive Secretary

The law provides that the personnel of the State Board of Agriculture shall be the same as the Board of Regents of the University of Maryland. The President of the University is the Executive Officer of the State Board of Agriculture.

General Powers of Board: The general powers of the Board as stated in Article 7 of the Laws of 1916, Chapter 391, are as follows:

"The State Board of Agriculture shall investigate the conditions surrounding the breeding, raising, and marketing of live stock and the products thereof, and contagious and infectious diseases affecting the same; the raising, distribution, and sale of farm, orchard, forest, and nursery products, generally, and plant diseases and injurious insects affecting the same; the preparation, manufacture, quality analysis, inspection, control, and distribution of animal and vegetable products, animal feeds, seeds, fertilizers, agricultural lime, agricultural and horticultural chemicals, and biological products; and shall secure information and statistics in relation thereto and publish such information, statistics, and the results of such investigations at such times and in such manner as to it shall seem best adapted to the efficient dissemination thereof; and except where such powers and duties are by law conferred or laid upon other boards, commissions, or officials, the State Board of Agriculture shall have general supervision, direction, and control of the herein recited matters, and generally of all matters in any way affecting or relating to the fostering, protection, and development of the agricultural interests of the State, including the encouragement of desirable immigration thereto, with power and authority to issue rules and regulations in respect thereof not in conflict with the Constitution and Laws of the State or the United States, which shall have the force and effect of law, and all violations of which shall be punished as misdemeanors are punished at common law; and where such powers and duties are by law conferred or laid on other governmental agencies may co-operate in the execution and performance thereof, and when so co-operating each shall be vested with such authority as is now or may hereafter by law be conferred on the other. The powers and duties herein recited shall be in addition to and not in limitation of any power and duties which now are or hereafter may be conferred or laid upon said board."

Under the above authority and by special legislation, all regulatory work is conducted under the general authority of the State Board. This includes the following services:

LIVESTOCK SANITARY SERVICE

816 Fidelity Building, Baltimore, Maryland.

This Service has charge of regulatory work in connection with the control of animal and poultry diseases, such as bovine tuberculosis, Bang's Disease, hog cholera, encephalomyolitis, rabies, anthrax, blackleg, and scabies in animals; and pullorum disease and blackhead in poultry. The Service cooperates in these activities with the U. S. Department of Agriculture.

Well equipped laboratories for research, diagnostic work, and the examination of specimens, are maintained at College Park, and a branch laboratory for the convenience of persons residing in the Northern and Western parts of the State is maintained at Lombard and Greene Streets, Baltimore.

Mark Welsh.....State Veterinarian

STATE HORTICULTURAL DEPARTMENT

College Park, Maryland.

The State Horticultural Law was enacted in 1898. It provides for the inspection of all nurseries and the suppression of injurious insects and diseases affecting plants of all kinds. The work of the department is conducted in close association with the departments of Entomology and Pathology of the University. The regulatory work is conducted under the authority of the law creating the department as well as the State Board of Agriculture. For administrative purposes, the department is placed under the Extension Service of the University on account of the close association of the work.

T. B. Symons.....Director of Extension Service
E. N. Cory.....State Entomologist
C. E. Temple.....State Pathologist

INSPECTION AND REGULATORY SERVICE

(Feeds, Fertilizer, and Lime)

L. B. Broughton, Ph.D.....State Chemist
L. E. Bopst, B.S.....Associate State Chemist
E. C. Donaldson, M.S.....Chief Inspector
W. J. Footen.....Inspector
E. M. Zentz.....Inspector
H. R. Walls.....Asst. Chemist and Micro-Analyst
L. H. Van Wormer.....Assistant Chemist
R. E. Baumgardner, B.S.....Assistant Chemist
Albert Heagy, B.S.....Assistant Chemist
Robert G. Fuerst.....Laboratory Helper

SEED INSPECTION SERVICE

College Park, Maryland.

The Seed Inspection Service is placed by law under the general supervision of the Agricultural Experiment Station. This service takes samples of seed offered for sale, and tests them for quality and germination.

F. S. Holmes.....Seed Inspector

STATE DEPARTMENT OF FORESTRY

1411 Fidelity Building, Baltimore, Maryland.

The Department of Forestry was created and organized to protect and develop the valuable forest resources of the State; to carry on a campaign of education; and to instruct counties, towns, corporations, and individuals as to the advantages and necessity of protecting from fire and other enemies the timber lands of the State. All correspondence and inquiries should be addressed to The State Forester, 1411 Fidelity Building, Baltimore.

Studies have been made of the timber resources of each of the twenty-three counties; and the statistics and information collected are published for free distribution, accompanied by a valuable timber map. The Department also administers six state forests, comprising about 5,000 acres. The Roadside Tree Law directs the Department of Forestry to care for trees growing within the right-of-way of any public highway in the State. A State Forest Nursery, established in 1914, is located at College Park.

F. W. Besley.....State Forester

STATE WEATHER SERVICE

Edward B. Mathews.....Director
Johns Hopkins University, Baltimore, Maryland.
John R. Weeks.....Meteorologist
U. S. Custom House, Baltimore, Maryland.

The State Weather Service compiles local statistics regarding climatic conditions and disseminates information regarding the climatology of Maryland under the Regents of the University of Maryland through the State Geologist as successor to the Maryland State Weather Service Commission. The State Geologist is ex-officio Director, performing all the functions of former officers with the exception of Meteorologist, who is commissioned by the Governor and serves as liaison officer with the United States Weather Bureau. All activities except clerical are performed voluntarily.

MARYLAND GEOLOGICAL SURVEY

Edward B. Mathews.....State Geologist
Johns Hopkins University, Baltimore, Maryland.

The Geological and Economic Survey Commission is authorized under the general jurisdiction of the Board of Regents of the University of Maryland to conduct the work of this department. The State Geological and Economic Survey is authorized to make the following:

Topographic surveys showing the relief of the land, streams, roads, railways, houses, etc.

Geological surveys showing the distribution of the geological formations and mineral deposits of the State.

Agricultural soil surveys showing the areal extent and character of the different soils.

Hydrographic surveys to determine the available waters of the State for potable and industrial uses.

Magnetic surveys to determine the variation of the needle for land surveys.

A permanent exhibit of the mineral wealth of the State in the old Hall of Delegates at the State House, to which new materials are constantly added to keep the collection up-to-date.

SECTION III Description Of Courses

The courses of instruction described in this section are offered at College Park. Those offered in the Baltimore Schools are described in the separate announcements issued by the several schools.

For the convenience of students in making out schedules of studies, the subjects in the following Description of Courses are arranged alphabetically:

	Page
Agricultural Economics	212
Agricultural Education and Rural Life.....	215
Agricultural Engineering.....	217
Agronomy (Crops and Soils).....	218
Animal and Dairy Husbandry.....	220
Aquiculture	338
Art	227
Astronomy	227
Bacteriology.....	227
Botany	231
Business Administration.....	235
Chemistry	244
Classical Languages.....	251
Comparative Literature	252
Economics.....	253
Education	256
Engineering	270
English Language and Literature.....	280
Entomology	287
Farm Forestry	290
Farm Management.....	212
French	309
Genetics and Statistics.....	290
Geology	291
German	312
Greek	251
History.....	291
Home Economics	294
Horticulture	298
Italian.....	314
Latin	251
Library Science	301
Mathematics	301
Military Science and Tactics.....	308
Modern Languages	309
Music	316

	Page
Philosophy	317
Physics	318
Political Science.....	321
Poultry Husbandry	324
Psychology.....	326
Sociology	328
Speech.....	333
Spanish	314
Veterinary Science.....	335
Zoology	336

Courses for undergraduates are designated by the numbers 1-99; courses for advanced undergraduates and graduates, 100-199; courses for graduates, 200-299.

The letter following the number of the course indicates the semester in which the course is offered: thus, 1 f is offered the first semester; 1 s, the second semester; 1 y, the year. A capital S after a course number indicates that the course is offered in the summer session only.

The number of hours' credit is shown by the arabic numeral in parentheses after the title of the course.

A separate schedule of courses is issued each semester, giving the hours, places of meeting, and other information required by the student in making out his program. Students will obtain these schedules when they register.

Students are advised to consult the statements of the colleges and schools in Section II when making out their programs of studies; also Regulation of Studies, Section I.

AGRICULTURAL ECONOMICS AND FARM MANAGEMENT*

PROFESSOR DEVAULT; LECTURER BAKER; ASSOCIATE PROFESSOR WALKER;
ASSISTANT PROFESSORS HAMILTON and CODDINGTON.

A. E. 1 f. *Agricultural Industry and Resources* (3)—Two lectures; one laboratory.

A descriptive course dealing with agriculture as an industry and its relation to climate, physiography, soils, population centers and movements, commercial development, transportation, etc.; the existing agricultural resources of the world and their potentialities, commercial importance, and geographical distribution; the chief sources of consumption; the leading trade routes and markets for agricultural products. The history of American agriculture is briefly reviewed. Emphasis is upon the chief crop and livestock products of the United States.

A. E. 2s. *Farm Organization* (3)—Three lectures.

A study of farm organization consisting of an introduction to the complex problems of the agricultural industry as these problems affect the life and welfare of the individual farmer. More specifically, the course includes the choice of agriculture as a vocation; adaptation of farms to

*See also related courses in Economics and in Business Administration.

particular enterprises; types of farming and factors influencing the same; farm returns; the use of labor, machinery, and land in production; combination of crop and livestock enterprises as they affect the farmer's income; and a study of successful and unsuccessful Maryland farms.

For Advanced Undergraduates and Graduates

A. E. 100 f. *Agricultural Economics* (3)—Three lectures. Prerequisite, Econ. 57 f or s.

A general course in agricultural economics, with special reference to population trend, agricultural wealth, land tenure, farm labor, agricultural credit, the tariff, price movements, and marketing. (DeVault.)

A. E. 102 s. *Marketing of Farm Products* (3)—Three lectures. Prerequisite, Econ. 57 f or s.

A complete analysis of the present system of transporting, storing, and distributing farm products, and a basis for intelligent direction of effort in increasing the efficiency of marketing methods. (DeVault.)

A. E. 103 f. *Cooperation in Agriculture* (3)—Three lectures.

Historical and comparative development of farmers' cooperative organizations with some reference to farmer movements; reasons for failure and essentials to success; commodity developments; the Federal Farm Board; banks for cooperatives; present trends. (Coddington.)

A. E. 104 s. *Agricultural Finance* (3)—Three lectures.

Agricultural Credit requirements; development and volume of business of institutions financing agriculture; financing specific farm organizations and industries. *Farm insurance*—fire, crop, livestock, and life insurance with special reference to mutual development—how provided, benefits, and needed extension. (Coddington.)

A. E. 105 s. *Food Products Inspection* (3)—Two lectures; one laboratory.

This course, arranged by the Department of Agricultural Economics in cooperation with the State Department of Markets and the United States Department of Agriculture, is designed to give students primary instruction in the grading, standardizing, and inspection of fruits and vegetables, dairy products, poultry products, meats, and other food products. Theoretical instruction covering the fundamental principles will be given in the form of lectures, while the demonstrational and practical work will be conducted through laboratories and field trips to Washington, D. C., and Baltimore. (Staff.)

A. E. 106 s. *Prices* (3)—Two lectures; one laboratory.

A general course in prices, price relationships, and price analysis, with emphasis on prices of agricultural products. (Ives.)

A. E. 107 s. *Analysis of the Farm Business* (3)—One lecture; two laboratories.

A concise practical course in the keeping, summarizing, and analyzing of farm accounts. (Hamilton.)

A. E. 108 f. *Farm Management* (3)—Three lectures.

A study of the organization and operation of Maryland farms from the standpoint of efficiency and profits. Students will be expected to make an analysis of the actual farm business and practices of different types of farms located in various parts of the State, and to make specific recommendations as to how these farms may be organized and operated as successful businesses. (Hamilton.)

A. E. 109 y. *Research Problems* (1-3).

With the permission of the instructor, students will work on any research problems in agricultural economics which they may choose, or a special list of subjects will be made up from which the students may select their research problems. There will be occasional class meetings for the purpose of making reports on progress of work, methods of approach, etc. (DeVault.)

A. E. 111 f. *Land Economics* (3)—Three lectures.

Concepts of land economy are discussed, as well as conditions and tendencies influencing land requirements in relation to land resources. A study of major land problems and land policies including erosion and its control; farm tenancy; tax delinquency and tax reverted lands; land use planning and production control; public policies for facilitating land use adjustments; and directional measures for discouraging undesirable land uses. (Coddington.)

For Graduates

A. E. 201 y. *Special Problems in Agricultural Economics* (3).

An advanced course dealing more extensively with some of the economic problems affecting the farmer; such as land problems, agricultural finance, farm wealth, agricultural prices, transportation, and special problems in marketing and cooperation. (DeVault.)

A. E. 202 y. *Seminar* (1-2).

This course will consist of special reports by students on current economic subjects, and a discussion and criticism of the same by the members of the class and the instructor. (DeVault.)

A. E. 203 y. *Research* (8).

Students will be assigned research in agricultural economics under the supervision of the instructor. The work will consist of original investigation in problems of agricultural economics, and the results will be presented in the form of theses. (DeVault.)

A. E. 210 s. *Taxation in Relation to Agriculture* (2)—Two lectures.

Principles and practices of taxation in their relation to agriculture, with special reference to the trends of tax levies, taxation in relation to land utilization, taxation in relation to ability to pay and benefits received; a comparison of the following taxes as they affect agriculture: general property tax, income tax, sales tax, gasoline and motor vehicle license taxes, inheritance tax, and special commodity taxes; possibilities of farm tax reduction through greater efficiency and economies in local government. (DeVault and Walker.)

A. E. 211 f. *Taxation in Theory and Practice* (3)—Two lectures; one laboratory period a week.

Ideals in taxation; economic effects of taxation upon the welfare of society; theory of taxation: the general property tax, business and license taxes, the income tax, the sales tax, special commodity taxes, inheritance and estate taxes; recent shifts in taxing methods and recent tax reforms; conflicts and duplication in taxation among governmental units; practical and current problems in taxation. (DeVault and Walker.)

A. E. 212 f. *Land Utilization and Agricultural Production* (3)—Two double lecture periods a week.

A presentation by regions of the basic physical conditions of the economic and social forces that have influenced agricultural settlement, and of the resultant utilization of the land and production of farm products; followed by a consideration of regional trends and interregional shifts in land utilization and agricultural production, and the outlook for further changes in each region. (Baker.)

A. E. 213 s. *Consumption of Farm Products and Standards of Living* (3)—Two double lecture periods a week.

A presentation of the trends in population and migration for the Nation and by States, of trends in exports of farm products and their regional significance, of trends in diet and in per capita consumption of non-food products; followed by a consideration of the factors that appear likely to influence these trends in the future, and of the outlook for commercial as contrasted with a more self-sufficing agriculture. (Baker.)

A. E. 214s. *Advanced Cooperation* (2)—Two lectures.

An appraisal of agricultural cooperation as a means of improving the financial status of farmers. More specifically, the course includes a critical analysis and appraisal of specific types and classes of cooperatives. (Coddington.)

AGRICULTURAL EDUCATION AND RURAL LIFE

PROFESSORS COTTERMAN, CARPENTER; MR. WORTHINGTON,
MR. POFFENBERGER.

For Advanced Undergraduates and Graduates

R. ED. 101 f. *Farm Practicums and Demonstrations* (1)—One laboratory. Cannot be used for graduate credit.

This course is designed to assist the student in relating the learning acquired in the several departments of the University with the problems of doing and demonstrating which he faces in the field and in the classroom as a teacher. It aims particularly to check his training in the essential practicums and demonstrations in vocational agriculture, and to introduce him to the conditions under which such activities must be carried on in the patronage areas and laboratories of vocational departments. Laboratory practice in deficiencies required. (Poffenberger.)

R. ED. 102 s. *Farm Practicums and Demonstrations* (1)—One laboratory. Cannot be used for graduate credit.

Continuation of R. Ed. 101 f.

(Poffenberger.)

R. ED. 107 f. *Observation and the Analysis of Teaching for Agricultural Students* (3)—Two lectures; one laboratory. Prerequisite, Psych. 10 f. Open to juniors and seniors; required of seniors in Rural Life and Agricultural Education.

This course deals with an analysis of pupil learning in class groups.

(Cotterman.)

R. ED. 109 f. *Teaching Secondary Vocational Agriculture* (3)—Three lectures. Prerequisites, R. Ed. 107 f; A. H. 1, 2; D. H. 1; Poultry 1; Soils 1; Agron. 1, 2; Hort. 1, 11; Agr. Engr. 101, 104; A. E. 2, 102; A. E. 108 f.

A comprehensive course in the work of high school departments of vocational agriculture. It emphasizes particularly placement, supervised farming programs, the organization and administration of Future Farmer work, and objectives and methods in all-day, continuation, and adult instruction.

(Cotterman.)

R. ED. 110 s. *Rural Life and Education* (3)—Three lectures.

An intensive study of the educational agencies at work in rural communities, stressing an analysis of school patronage areas, the possibilities of normal life in rural areas, early beginnings in rural education, and the conditioning effects of economic differences. The course is designed especially for persons who expect to be called upon to assist in shaping educational and other community programs for rural people.

(Cotterman.)

R. ED. 112 s. *Departmental Organization and Administration* (1)—Two lectures. Prerequisites, R. Ed. 107 f, 109 f.

The work of this course is based upon the construction and analysis of administrative programs for high school departments of vocational agriculture. As a project, each student prepares and analyzes in detail an administrative program for a specific school. Investigations and reports.

(Worthington.)

R. ED. 114 s. *Teaching Farm Shop in Secondary Schools* (1)—One lecture. Objectives in the teaching of farm shop; contemporary developments; determination of projects; shop management; shop programs; methods of teaching; equipment; materials of instruction; special projects.

(Carpenter.)

R. ED. 120 f or s. *Practice Teaching* (2)—Prerequisites, R. Ed. 107 f, 109 f.

Under the direction of a critic teacher the student in this course is required to analyze and prepare special units of subject matter, plan lessons, and teach in cooperation with the critic teacher, exclusive of observation, not less than twenty periods of vocational agriculture.

(Cotterman, Worthington.)

For Graduates

R. ED. 201 f; 202 s. *Rural Life and Education* (3). Prerequisite, R. Ed. 110 s, or equivalent.

A sociological approach to rural education as a movement for a good life in rural communities. It embraces a study of the organization, administration, and supervision of the several agencies of public education as component parts of this movement and as forms of social economy and human development. Discussions, assigned readings, and major term papers in the field of the student's special interest. (Not offered, 1938-1939.) (Cotterman.)

R. ED. 207 f; 208 s. *Problems in Vocational Agriculture, Related Science, and Shop* (2-4).

In this course special emphasis is placed upon the current problems facing teachers of vocational agriculture. It is designed especially for persons who have had several years of teaching experience in this field. The three phases of the vocational teacher's program—all day, part-time, and adult work—receive attention. Discussions, surveys, investigations, and reports.

(Cotterman.)

R. ED. 250 y. *Seminar in Rural Education* (2-4).

Problems in the organization, administration, and supervision of the several agencies of rural education. Investigations, papers, and reports.

(Cotterman.)

R. ED. 251 y. *Research* (2-4). Credit hours according to work done. Students must be specially qualified by previous work to pursue with profit the research to be undertaken.

(Cotterman.)

AGRICULTURAL ENGINEERING

PROFESSOR CARPENTER; ASSOCIATE PROFESSOR KREWATCH; ASSISTANT PROFESSOR BURKHARDT.

AGR. ENGR. 101 f. *Farm Machinery* (3)—Two lectures; one laboratory.

A study of the design and adjustments of modern horse- and tractor-drawn machinery. Laboratory work consists of detailed study of actual machines, their calibration, adjustment, and repair.

AGR. ENGR. 102 s. *Gas Engines, Tractors, and Automobiles* (3)—Two lectures; one laboratory.

A study of the design, operation, and repair of the various types of internal combustion engines used in farm practice.

AGR. ENGR. 104 f. *Farm Shop Work* (1)—One laboratory.

A study of practical farm shop exercises, offered primarily for prospective teachers of vocational agriculture.

AGR. ENGR. 105 f. *Farm Buildings* (2)—Two lectures.

A study of all types of farm structures; also of farm heating, lighting, water supply, and sanitation systems.

AGR. ENGR. 107 s. *Farm Drainage* (2)—One lecture; one laboratory. A study of farm drainage systems, including theory of tile under-drainage, the depth and spacing of laterals, calculation of grades, and methods of construction. A smaller amount of time will be spent upon drainage by open ditches, and the laws relating thereto.

AGRONOMY

Division of Crops

PROFESSORS METZGER, KEMP; ASSOCIATE PROFESSOR EPPLEY;
MR. A. W. WOODS.

AGRON. 1 f. *Cereal Crop Production* (3)—Two lectures; one laboratory. History, distribution, adaptation, culture, improvement, and uses of cereal, forage, pasture, cover, and green manure crops.

AGRON. 2 s. *Forage Crop Production* (3)—Two lectures; one laboratory. Continuation of Agron. 1 f.

For Advanced Undergraduates and Graduates

AGRON. 102 f. *Technology of Crop Quality* (2 or 3)—Students, other than those specializing in agronomy, may register for either half of the course. Part one (*Grading Farm Crops*)—one lecture; one laboratory. The market classifications and grades as recommended by the United States Bureau of Markets, and practice in determining grades. Part two (*Grain, Hay, and Seed Judging and Identification*)—one laboratory. (Eppley.)

AGRON. 103 f. *Crop Breeding* (2)—One lecture; one laboratory. Prerequisite, G. and S. 101 f.

The principles of breeding as applied to field crops, and methods used in crop improvement. (Kemp.)

AGRON. 104 f and s. *Selected Crop Studies* (1-4)—Credit according to work done. This course is intended primarily to give an opportunity for advanced study of crop problems or crops of special interest to students. (Staff.)

AGRON. 121 s. *Methods of Crop and Soil Investigations* (2)—Two lectures.

A consideration of crop investigation methods at the various experiment stations, and the standardization of such methods. (Metzger.)

For Graduates

AGRON. 201 y. *Crop Breeding* (4-10)—Credits determined by work accomplished.

The content of this course is similar to that of Agron. 103 f, but will be adapted more to graduate students, and more of a range will be allowed in choice of material to suit special cases. (Kemp.)

AGRON. 203 y. *Seminar* (2)—One report period each week.

The seminar is devoted largely to reports by students on current scientific publications dealing with problems in crops and soils.

AGRON. 209 y. *Research* (6-8)—Credit determined by work accomplished.

With the approval of the head of the department, the student will be allowed to work on any problem in agronomy, or he will be given a list of suggested problems from which he may make a selection. (Staff.)

Division of Soils

PROFESSORS BRUCE, THOMAS; LECTURER THOM.

SOILS 1 f and s. *Soils and Fertilizers* (3-5)—Three lectures; two two-hour laboratory periods. Prerequisites, Geol. 1 f, Chem. 1 y, Chem. 12 y.

A study of the principles involved in soil formation and classification. The influence of physical, chemical, and biological activities on plant growth, together with the use of fertilizers in the maintenance of soil fertility. Lectures may be taken without the laboratory.

For Advanced Undergraduates and Graduates

SOILS 102 s. *Soil Management* (3)—Two lectures; one laboratory. Prerequisite, Soils 1.

A study of the soil fertility systems of the United States, with special emphasis on the interrelation of total to available plant food, the balance of nutrients in the soil with reference to various cropping systems, and the economic and national aspect of permanent soil improvement. The practical work includes laboratory and greenhouse practice in soil improvement.

SOILS 103 f. *Soil Geography* (3)—Two lectures; one discussion period.

A study of the genealogy of soils, the principal soil regions of North America, and the classification of soils. Field trips will be made to emphasize certain important phases of the subject.

SOILS 112 s. *Soil Conservation* (3)—Three lectures.

A study of the factors relating to soil preservation, including the influence of cropping and soil management practices, fertilizer treatments, constructive and destructive agencies of man and nature on conservation, history of research in soil erosion, and field trips to soil demonstration areas.

For Graduates

SOILS 204 s. *Soil Micro-Biology* (3)—Two lectures; one laboratory. Prerequisite, Bact. 1.

A study of the micro-organisms of the soil in relation to fertility. It includes the study of the bacteria of the soil concerned in the decomposition of organic matter, nitrogen fixation, nitrification, and sulphur oxidation and reduction, and deals also with such organisms as fungi, algae, and protozoa.

The course includes a critical study of the methods used by experiment stations in soil investigational work.

SOILS 201 y. *Special Problems and Research* (10-12).

Original investigation of problems in soils and fertilizers. (Staff.)

SOILS 202 y. *Soil Technology* (7-5 f, 2 s)—Three lectures; two laboratories first semester; two lectures second semester. Prerequisites, Geol. 1, Soils 1, and Chem. 1.

In the first semester, chemical and physico-chemical study of soil problems as encountered in field, greenhouse, and laboratory. In the second semester, physical and plant nutritional problems related to the soil.

(Thomas.)

ANIMAL AND DAIRY HUSBANDRY

PROFESSORS IKELER, MEADE, INGHAM, CLARK, VIAL, BARKER; ASSOCIATE PROFESSORS BERRY, ENGLAND; ASSISTANT PROFESSORS HUGHES, BOGUE; ASSISTANTS BUTLER, LOYD.

Animal Husbandry

A. H. 1f. *General Animal Husbandry* (2)—Two laboratories.

General view—Animal $\frac{1}{2}$, Dairy $\frac{1}{2}$. First half of course is devoted to the place of livestock in the farm organization. General principles underlying efficient livestock operations. Brief survey of the breeds and the market types and classes of livestock, together with an insight into our meat supply. Second half of course is devoted to the general topic of dairying and milk production, and covers a brief review of the breeds of dairy cattle and the feeding, management, and handling of commercial dairy herds.

(Ingham, Bogue.)

A. H. 2s. *General Animal Husbandry* (2)—Two laboratories.

Types and market classes of beef cattle, sheep, hogs, horses. An outline of the types and market classes of cattle, hogs, sheep, and horses, supplemented by trips to large typical central livestock markets. Emphasis is placed on the selection and judging of the various classes of livestock. A review of the entire commercial livestock and meat industry. (Clark, Bogue.)

For Advanced Undergraduates and Graduates

A. H. 100f. *Breeds of Horses and Beef Cattle* (2)—Two laboratories. Prerequisite, A. H. 2s.

A complete review of the types, characteristics, and general history of the various breeds of draft horses and beef cattle. This course is designed to familiarize students with the general use and adaptability of the breeds of draft horses and beef cattle that figure in America's draft horse and beef cattle industry. Laboratory consists of comparing specimens of the various breeds with emphasis on breed characteristics of the different breeds involved.

(Clark, Bogue.)

A. H. 101s. *Breeds of Sheep and Swine* (2)—Two laboratories. Prerequisite, A. H. 2s.

A complete review of the breeds of sheep and hogs, including a review of the history of the different breeds and the importance of the different breeds in our livestock farming industry. Laboratory work centers around the study and comparison of the breed characteristics of the various breeds of sheep and hogs.

(Clark, Bogue.)

A. H. 102f. *Feeds and Feeding* (3)—One laboratory; two lectures. Junior year. Prerequisite, Chem. 1y and Chem. 12Ay.

Elements of nutrition, source, characteristics, and adaptability of the various feeds to the several classes of livestock. Feeding standards, the calculation and compounding of rations.

(Meade.)

A. H. 103s. *Principles of Breeding* (3)—Two lectures; one laboratory. Senior year. Prerequisite, G. and S. 101f.

This course covers the practical aspects of animal breeding, including heredity, variation, selection, development, systems of breeding, and pedigree work.

(Meade.)

A. H. 104f. *Livestock Management, Horses, Beef Cattle* (2)—Two laboratories. Prerequisite, A. H. 2s.

A thorough livestock management course designed to familiarize students with the practical handling and management of draft horses and beef cattle under farm conditions. Students are given actual practice and training in maintaining, feeding, fitting, and preparing animals for show, sale, and work purposes; also practice in trimming feet, shoeing, dressing horns, dehorning, and the many other things pertaining to the handling of draft horses and beef cattle.

(Vial, Bogue.)

A. H. 105s. *Livestock Management, Sheep and Swine* (2)—Two laboratories. Prerequisite, A. H. 2s.

Mostly a laboratory course, thoroughly covering the entire field of livestock management as it pertains to sheep and hogs. Practice is given in the fitting, grooming, trimming, and training of these animals for sale and show purposes. Full discussion on the management and handling of practical sheep flocks and hog herds under farm conditions. Practice in dipping, drenching, docking, shearing, and showing.

(Vial, Bogue.)

A. H. 106f. *Livestock Judging* (2)—Two laboratories. Prerequisite, A. H. 2s.

This course consists of laboratory work centered around the judging of hogs, sheep, beef cattle, and draft horses. Laboratory specimens are drawn from the college herds and flocks, and supplemental trips are occasionally made to outstanding state herds.

(Clark, Bogue.)

A. H. 107s. *Livestock Judging* (2)—Two laboratories. Prerequisite, A. H. 106f.

A continuation of 106f, but with a more advanced program. An all-laboratory course in livestock judging.

(Clark, Bogue.)

A. H. 108f. *Advanced Livestock Judging* (2)—Two laboratories. Prerequisite, A. H. 107s.

A course for advanced training in the selection and judging of animals of the different breeds and market classes of sheep, hogs, beef cattle, and draft horses. The University of Maryland livestock judging team is

selected from outstanding student judges enrolled in this course. A wide variety of laboratory animals are used. Practice judging includes occasional judging trips among some of the better state herds. (Bogue.)

A. H. 109f. *Beef Cattle and Horse Production* (3)—Three lectures. Prerequisite, A. H. 100f and A. H. 105s.

A full review of the principles underlying the practical and economical production of beef cattle and draft horses, particularly treating such angles as the selection of breeding animals, the raising, feeding, and preparation of beef cattle and draft horses for breeding, market, and work purposes. (Clark, Bogue.)

A. H. 110s. *Sheep and Swine Production* (3)—Three lectures. Prerequisite, A. H. 101s and 104 f.

A course for those interested in the principles and practices underlying economical and efficient sheep and swine production for both commercial and breeding purposes. Full treatment of the topics of feeding, managing, producing, and marketing sheep and hogs. (Clark, Bogue.)

A. H. 111f. *Livestock Markets and Marketing* (2)—Two lectures. Prerequisite, A. H. 2s.

A comprehensive study of the marketing of sheep, beef cattle, hogs, and draft horses, and practices found in the vast American livestock market system, together with the facilities available for the marketing and merchandising of all kinds of livestock and meat products. (Clark, Bogue.)

A. H. 112s. *Geography of Livestock Production* (2)—Two lectures.

A course designed to familiarize students with livestock management, production, and marketing practices in other parts of the world. Consideration is given to the bearing of foreign livestock and meat industries on this country's production, including an insight into our foreign markets. (Clark.)

A. H. 113f. *Animal Nutrition* (3)—Three lectures. Prerequisites, Chem. 12Ay and A. H. 102f.

Processes of digestion, absorption, and metabolism of nutrients, nutritional balances, nature of nutritional requirements for growth, production, and reproduction. (Meade.)

A. H. 114s. *Advanced Breeding* (2)—Two lectures. Prerequisites, G. and S. 101f and A. H. 103s.

This course deals with the more technical phases of heredity, variation, recombination, and mutation; selection and selection indexes; breeding systems; specific inheritance in farm animals, and with biometry as applied to animal breeding. (Meade.)

For Graduates

A. H. 201 f or s. *Special Problems in Animal Husbandry* (2-3). Credit given in proportion to amount of work completed.

Problems which relate specifically to the character of work the student is pursuing will be assigned. (Staff.)

A. H. 202 f or s. *Seminar* (1).

Students are required to prepare papers based upon current scientific publications relating to animal husbandry or upon their research work, for presentation before and discussion by the class. (Staff.)

A. H. 203y. *Research*—Credit to be determined by the amount and character of work done.

With the approval of the head of the department, students will be required to pursue original research in some phase of animal husbandry, carry the same to completion, and report the results in the form of a thesis. (Meade, Clark.)

DAIRY HUSBANDRY

D. H. 1 f. *Fundamentals of Dairying* (3)—Two lectures; one laboratory. Sophomore year. Prerequisite, Chem. 1 y.

This course includes a general survey of the dairy manufacturing industry; the physical and chemical properties of milk; the production and distribution of dairy products; the Babcock Test and other quantitative tests; simple qualitative tests for adulterants and preservatives; ice cream, butter, cheese, and condensed products, and judging and scoring market milk. (England.)

D. H. 2 s. *Fundamentals of Dairying* (3)—Two lectures; one laboratory. Sophomore year. Prerequisite, Chem. 1 y.

This course covers very briefly the origin, development, and characteristics of the dairy breeds of cattle; elementary judging practice; feeding, breeding, and management of the dairy herd; dairy farm buildings and equipment; bull associations and dairy herd improvement associations; the production of high-quality milk; and the fitting and showing of dairy cattle. Students in this course will be required to fit and show an animal in the annual students' fitting and showing contest. (Ingham.)

For Advanced Undergraduates and Graduates

D. H. 101 f. *Dairy Production* (3)—Two lectures; one laboratory; junior or senior year. Prerequisites, D. H. 1 f and D. H. 2 s.

History and development of dairy farming; selection, care, and management of the dairy herd; calf raising; common ailments and diseases of dairy cattle, feeding for milk production; dairy barns and equipment; the purebred business. (Ingham.)

D. H. 102 s. *Dairy Production* (3)—Two lectures; one laboratory; junior or senior year. Prerequisite, D. H. 101 f.

Essential factors in the production of high-quality milk; dairy farm inspection; cost of milk production; producer's cooperative milk marketing organizations; the transportation of milk, and the fitting, showing, and judging of dairy cattle. Students in this course will be required to fit and show an animal in the annual students' fitting and showing contest. (Ingham.)

D. H. 103 s. *Dairy Cattle Judging—Juniors and Seniors* (1)—One laboratory.

Comparative judging of dairy cattle. Trips to various farms. Such dairy cattle judging teams as may be chosen to represent the University will be selected from among those taking this course. (Ingham.)

D. H. 104 f. *Advanced Dairy Cattle Judging* (1)—One laboratory, senior year. Prerequisite, D. H. 103 s.

Advanced work in judging dairy cattle. Credit only to students who do satisfactory work in competition for the dairy cattle judging team. (Ingham.)

D. H. 105 s. *Advanced Study of Dairy Breeds* (2)—One lecture; one laboratory. Prerequisite, D. H. 2 s.

A study of the historical background, characteristics, noted individuals and families, and the more important blood lines in the Holstein, Guernsey, Ayrshire, and Jersey breeds. (Ingham.)

D. H. 106 f. *Dairy Cattle Management and Barn Experience* (3)—Junior or senior year. Prerequisites, D. H. 2 s and 101 f, and D. H. 102 s.

Each student will be assigned special work under direction of an instructor at the University of Maryland Dairy barn, and will continue such assignment until he is proficient. Special emphasis will be given to all management problems, including the fitting and showing of dairy animals. (Ingham.)

D. H. 107 s. *Dairy Cattle Management and Barn Experience* (3)—Continuation of D. H. 106 f.

D. H. 108 f. *Dairy Manufacturing* (5)—Two lectures; two 4-hour laboratories; junior year. Prerequisites, D. H. 1 f and Bact. 1.

The principles and practice of making casein, cheese, and butter, including a study of the physical, chemical, and biological factors involved. Laboratory practice will include visits to commercial factories. (Not given in 1938-1939.) (England.)

D. H. 109 s. *Dairy Manufacturing* (5)—Two lectures; two 4-hour laboratories; junior year. Prerequisites, D. H. 1 f and Bact. 1.

The principles and practice of making condensed milk and milk powder, and ice cream, including a study of the physical, chemical, and biological factors involved. Laboratory practice will include visits to commercial factories. (Not given in 1938-1939.) (England.)

D. H. 110 f. *Market Milk* (5)—Three lectures; two laboratories; senior year. Prerequisites, D. H. 1 f and Bact. 1.

Commercial and economic phases of market milk, with special reference to its transportation, processing, and distribution; certified milk; commercial buttermilk; milk laws; duties of milk inspectors; distribution; milk plant construction and operation. Laboratory practice includes visits to local dairies. (England.)

D. H. 111 s. *Analysis of Dairy Products* (3)—One lecture; one 4-hour laboratory (consecutive); senior year. Prerequisites, D. H. 1 f, Bact. 1. Chem. 4 f or s, Chem. 12 y.

The application of chemical and bacteriological methods to commercial dairy practice; analysis by standard chemical, bacteriological, and factory methods; standardization and composition control; tests for adulterants and preservatives. (England.)

D. H. 112 s. *Grading Dairy Products* (1)—One laboratory; junior year. Prerequisite, D. H. 1 f.

Market grades and the judging of milk, butter, cheese, and ice cream in the commercial field. (England, Loyd.)

D. H. 113 f. *Advanced Grading of Dairy Products* (1)—One laboratory; senior year. Prerequisite, D. H. 111 s.

Advanced work in the judging of milk, butter, cheese, and ice cream. Open only to students who comprise the dairy products judging team. (England, Loyd.)

D. H. 114 f. *Dairy Mechanics* (2)—Two laboratories; junior year. Prerequisite, D. H. 1 f.

The theory and operation of the compression system of mechanical refrigeration. Construction, design, and care of dairy equipment, repairing, soldering, pipe fitting, and wiring. (Hughes.)

D. H. 115 s. *Dairy Accounting* (1)—One laboratory; senior year. Prerequisite, D. H. 1 f.

Methods of accounting in the market milk plant and dairy manufacturing plants. (Hughes.)

D. H. 116 f. *Dairy Plant Experience* (3)—Senior year. Prerequisite, 10 hours of Dairy Husbandry.

Twelve weeks practical experience or its equivalent (following completion of junior year) in an approved market milk plant or factory manufacturing dairy products. A written report of the work is required. (England.)

D. H. 117 s. *Dairy Plant Experience* (1)—Senior year. Prerequisite, D. H. 1 f.

Two hundred hours practical experience in the University of Maryland

Dairy Manufacturing Plant. The grade will be based on the dependability and efficiency of the student in performing work assigned.

(England, Hughes.)

D. H. 118 f. *History and Geography of Dairying* (2)—Two lectures; junior year.

A study of the history and development of dairying in the various countries of the world, with special reference to the importance of the industry, to breeds of dairy cattle and their development, to dairy products manufactured, and to the importation and exportation of dairy products.

(Berry.)

D. H. 119 f and 120 s. *Dairy Literature* (1)—One lecture; junior and senior year. Prerequisite, D. H. 1 f and D. H. 2 s.

Presentation and discussion of current literature in dairying.

(England, Berry.)

D. H. 121 y. *Methods of Dairy Research* (1-3).

This course is designed especially to meet the needs of dairy students who plan to pursue graduate work or enter the research or technical field of dairying. Methods of conducting dairy research and the presentation of results are stressed. A research problem which relates specifically to the work the student is pursuing will be assigned.

Credit will be given in accordance with the amount and character of work done. Elective for seniors and graduate students only.

(England, Berry.)

For Graduates

D. H. 201 f. *Advanced Dairy Production* (3).

A study of the newer discoveries in animal nutrition, breeding, and management. Readings and assignments.

(Ingham.)

D. H. 202 f. *Dairy Technology* (2)—Two lectures.

A consideration of milk and dairy products from the physiochemical point of view.

(England.)

D. H. 203 s. *Milk Products* (2)—Two lectures.

An advanced consideration of the scientific and technical aspects of milk products.

(England.)

D. H. 204 f or s. *Special Problems in Dairying* (1-3).

Special problems which relate specifically to the work the student is pursuing will be assigned. Credit will be given in accordance with the amount and character of work done.

(Staff.)

D. H. 205 f or s. *Seminar* (1).

Students are required to prepare papers based upon research in progress or completed for presentation before and discussion by the class.

(Staff.)

D. H. 206 y. *Research*. Credit to be determined by the amount and quality of work done.

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

(Meade, Ingham, England.)

ART

PROFESSORS MARTI and HIGHBY.

ART 1f. *Art in Ancient Civilization I* (2)—Two lectures.

A survey of the architectural remains, the sculpture and painting of antiquity presented with free use of the stereopticon, and with accompanying lectures calling attention to the historical stages and the cultural development which they represent. Due attention will be given to plan and design.

ART 2s. *Art in Ancient Civilization II* (2)—Two lectures.

A continuation of Art 1f. Roman art and archaeology.

ART. 3f. *History of Occidental Art I* (2)—One lecture and one hour of slide study. No prerequisite.

An introduction to the figurative art, and to the development of style. Art from the third century A. D. to the Renaissance. Occasional visits to the museums in Washington and Baltimore.

ART 4s. *History of Occidental Art II* (2)—One lecture and one hour of slide study. No prerequisite.

Similar to Art 3f. Art from the Renaissance to the present. Occasional visits to the museums.

ASTRONOMY

PROFESSOR T. H. TALIAFERRO.

ASTR. 101y. *Astronomy* (4)—Two lectures. Elective, but open only to juniors and seniors.

An elementary course in descriptive astronomy.

BACTERIOLOGY*

PROFESSORS JAMES, BLACK; ASSISTANT PROFESSORS FABER, BARTRAM; MR. PELCZAR, MISS SOCKRIDER, MR. BROWNLEE.

BACT. 1 f and s. *General Bacteriology* (4)—Two lectures; two laboratories. Sophomore or higher standing.

A brief history of bacteriology; microscopy; bacteria and their relation to nature; morphology; classification; metabolism; bacterial enzymes; applica-

* One or more of the scheduled courses for advanced undergraduates and graduates may be given during the evening, if a sufficient number of students register. A special fee is charged.

tion to water, milk, foods, and soils; relation to the industries and to diseases. Preparation of culture media; sterilization and disinfection; microscopic and macroscopic examination of bacteria; isolation, cultivation, and identification of aerobic and anaerobic bacteria; effects of physical and chemical agents; microbiological examinations.

BACT. 1 A f and s. *General Bacteriology* (2)—Two lectures. Sophomore or higher standing.

This course consists of the lectures only of Bact. 1.

BACT. 2 s. *Pathogenic Bacteriology* (4)—Two lectures; two laboratories. Sophomore year. Prerequisite, Bact. 1. Registration limited.

Principles of infection and immunity; characteristics of pathogenic microorganisms. Isolation and identification of bacteria from pathogenic material; effects of pathogens and their products.

BACT. 2 A s. *Pathogenic Bacteriology* (2)—Two lectures. Prerequisite, Bact. 1 and sophomore or higher standing.

This course consists of the lectures only of Bact. 2 s.

BACT. 3 s. *Household Bacteriology* (3)—One lecture; two laboratories. Junior year. Home Economics students only.

A brief history of bacteriology; bacterial morphology, classification, and metabolism; their relation to water, milk, dairy products, and other foods; infection and immunity; personal, home, and community hygiene.

BACT. 4 s. *Elements of Sanitary Bacteriology* (1)—One lecture. Senior year. Engineering students only.

Bacteria and their application to water purification and sewage disposal.

For Advanced Undergraduates and Graduates

BACT. 101 f. *Milk Bacteriology* (4)—Two lectures; two laboratories. Junior year. Prerequisite, Bact. 1. Registration limited.

Bacteria in milk, sources and development; milk fermentation; sanitary production; care and sterilization of equipment; care and preservation of milk and cream; pasteurization; public health requirements. Standard methods of milk analysis; practice in the bacteriological control of milk supplies and plant sanitation; occasional inspection trips. (Black.)

BACT. 102 s. *Dairy Products Bacteriology* (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1 and Bact. 101 f desirable.

Relation of bacteria, yeasts, and molds to cream, concentrated milks, starters, fermented milks, ice cream, butter, cheese, and other dairy products; sources of contamination. Microbiological analysis and control; occasional inspection trips. (Black.)

BACT. 111 f. *Food Bacteriology* (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1.

Bacteria, yeasts, and molds in foods; relation to preservation and spoilage; sanitary production and handling; food regulations; food infections

and intoxications. Microbiological examination of normal and spoiled foods; factors affecting preservation. (Bartram.)

BACT. 112 s. *Sanitary Bacteriology* (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1. Registration limited.

Bacteriological and public health aspects of water supplies and water purification; swimming pool sanitation; sewage disposal, industrial wastes; disposal of garbage and refuse; municipal sanitation. Practice in standard methods for examination of water, sewage and other sanitary analyses; differentiation and significance of the coli-aerogenes group. (Bartram.)

BACT. 115 f. *Serology* (4)—Two lectures; two laboratories. Junior year. Prerequisite, Bact. 2 s. Registration limited.

Infection and resistance; agglutination, precipitation, lytic and complement fixation reactions; principles of immunity and hypersensitiveness. Preparation of necessary reagents; general immunologic technic; factors affecting reactions; applications in the identification of bacteria and diagnosis of disease. (Faber.)

BACT. 116 s. *Epidemiology* (2)—Two lectures. Junior year. Prerequisite, Bact. 1 and credit or registration in Bact. 2 or 2A.

Epidemiology of important infectious diseases, including history, characteristic features, methods of transmission, immunization and control; periodicity; principles of investigation; public health applications. Offered alternate years, alternating with Bact. 126 s. (Faber.)

BACT. 118 f. *Systematic Bacteriology* (2)—Two lectures. Senior year. Prerequisite, Bacteriology, 10 hours.

History of bacterial classification; genetic relationships; international codes of nomenclature; bacterial variation as it affects classification. (James.)

BACT. 122 f and s. *Advanced Methods* (2)—One lecture; one laboratory. Junior year. Prerequisite, Bacteriology, 10 hours. Registration limited.

Microscopy, dark field and single cell technic, photomicrography; colorimetric and potentiometric determinations; oxidation-reduction, electrophoresis; surface tension; gas analysis; special culture methods; filtration; animal care; practice in media and reagent preparation. (Bartram.)

BACT. 123 f. *Bacteriological Problems* (2)—Laboratory. Senior year. Prerequisite, Bact. 1 and 2 and any other courses needed for the projects. Registration limited.

Subject matter suitable to the needs of the particular student or problems as an introduction to research will be arranged. The problems are to be selected, outlined, and investigated in consultation with and under the supervision of a member of the department. Results are to be presented in the form of a thesis. (Staff.)

BACT. 124 s. *Bacteriological Problems (Continued)* (2)—Laboratory. Senior year. Prerequisite, Bact. 1 and 2 and any other courses needed for the projects. Registration limited. (Staff.)

BACT. 125 f. *Clinical Methods* (3)—One lecture; two laboratories. Senior year. Prerequisite, Bact. 2.

Methods of microscopic examination of the important constituents of blood, urine, gastric content, feces and exudates; correlation with qualitative and quantitative laboratory procedures. (Bartram.)

BACT. 126 s. *Public Health* (1)—One lecture. Senior year. Prerequisite, Bact. 1 and Bact. 2.

A series of weekly lectures on public health and its administration, by the staff members of the Maryland State Department of Health, representing each of the bureaus and divisions. Offered alternate years, alternating with Bact. 116 s. (James, in charge.)

BACT. 128 s. *Bacterial Metabolism* (2)—Two lectures. Senior year. Prerequisite, Bact. 1, Chem. 12 y or equivalent.

Growth, chemical composition; oxygen relations; enzymes; bacterial metabolism and respiration; chemical activities of microorganisms; industrial fermentations. Offered alternate year, alternating with Bact. 206 s. (Black.)

BACT. 131 f. *Journal Club* (1). Senior year. Prerequisites, Bact. 1 and 2.

Students will submit reports on current scientific literature or on individual problems in bacteriology, which will be discussed and criticised by members of the class and staff. (Black.)

BACT. 132 s. *Journal Club (Continued)* (1). Senior year. Prerequisites, Bact. 1 and 2. (Black.)

For Graduates

BACT. 205 f. *Research Methods* (1)—One lecture. Prerequisite, Bacteriology, 6 hours.

Methods of research; library practice; current literature; preparation of papers; research institutions, investigators; laboratory design, equipment and supplies; academic practices; professional aids. (Black.)

BACT. 206 s. *Physiology of Bacteria* (2)—Two lectures. Prerequisite, Bacteriology, 10 hours and Chem. 108 s or equivalent.

Growth; chemical composition; physical characteristics; energy relationships; influence of environmental conditions on growth and metabolism; disinfection; physiological interrelationships; changes occurring in media. Offered alternate years, alternating with Bact. 128 s. (James.)

BACT. 207 f. *Special Topics* (1). Prerequisite, Bacteriology, 10 hours. Presentation and discussion of fundamental problems and special subjects. (Black.)

BACT. 208 s. *Special Topics (Continued)* (1). Prerequisite, Bacteriology, 10 hours. (Black.)

BACT. 215 f or s. *Food Sanitation* (2)—Two lectures. Prerequisite, Bact. 1, Bact. 2, and Bact. 111 f, or their equivalent.

Principles of sanitation in food manufacture and distribution; methods of control of sanitation in commercial canning, pickling, bottling, preserving, refrigeration, dehydration, etc. (James.)

BACT. 221 f. *Research* (1-6)—Laboratory. Prerequisites, Bact. 1 and 2, and any other courses needed for the particular projects. Credit will be determined by the amount and character of the work accomplished.

Properly qualified students will be admitted upon approval of the department head and with his approval the student may select the subject for research. The investigation is outlined in consultation with and pursued under supervision of a faculty member of the department. The results obtained by a major student working towards an advanced degree are presented as a thesis, a copy of which must be filed with the department. (Staff.)

BACT. 222 s. *Research (Continued)* (1-6) — Laboratory. Prerequisites, Bact. 2 and any other courses needed for the particular projects. (Staff.)

BACT. 231 f. *Seminar* (2). Prerequisite, Bacteriology, 10 hours.

Discussions and reports prepared by the student on current research, selected subjects, and recent advances in bacteriology. (James.)

BACT. 232 s. *Seminar (Continued)* (2). Prerequisite, Bacteriology, 10 hours. (James.)

BOTANY

PROFESSORS APPLEMAN, NORTON, TEMPLE; ASSOCIATE PROFESSORS BAMFORD, JEHL; ASSISTANT PROFESSORS BROWN, DUBUY, WOODS; MR. WALKER, MR. MCCANN, MR. TILLSON, MR. REYNARD, MR. SHIRK, MR. BELLOWS, MR. OLSON, MR. JEFFERS.

A. General Botany and Morphology

BOT. 1 f. *General Botany* (4)—Two lectures; two laboratories.

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

BOT. 1 s. *Introductory Botany* (3)—Two lectures; one demonstration or laboratory period.

A course similar to Bot. 1 f, except that only one demonstration or laboratory period is required.

BOT. 2 s. *General Botany* (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

A study of algae, bacteria, fungi, liverworts, mosses, ferns, and seed plants. The development of reproduction, adjustment of plants to environment, habit of growth, and the attendant changes in vascular and anatomical structures are stressed. Several field trips will be arranged. With Bot. 1 f, a cultural course intended also as foundational to a career in the plant sciences.

BOT. 3 s. *Local Flora* (2).

A study of common plants, both wild and cultivated, and the use of keys, floral manuals, and other methods of identifying them. Largely field work.

For Advanced Undergraduates and Graduates

BOT. 101 f. *Plant Anatomy* (3)—One lecture; two laboratories. Prerequisite, Bot. 1 f.

The origin and development of the organs and tissue systems in the vascular plants, with special emphasis on the structures of roots, stems, and leaves. Reports of current literature are required. (Bamford.)

BOT. 103 f. *Plant Taxonomy* (3)—One lecture; two laboratories.

Classification of the vegetable kingdom, and the principles underlying it; the use of other sciences and all phases of botany as taxonomic foundations; methods of taxonomic research in field, garden, herbarium, and library. Each student to work on a special problem during some of the laboratory time. (Norton.)

BOT. 104 s. *Advanced Plant Taxonomy* (3)—One lecture; two laboratories.

Principles and criteria of plant taxonomy. Reviews and criticisms of current taxonomic literature. Each student works on an original problem during the laboratory time. (Not given in 1938-1939.) (Norton.)

BOT. 105 s. *Economic Plants* (2)—Two lectures.

The names, taxonomic position, native and commercial geographic distribution, and use of the leading economic plants of the world are studied. A collection of plant products from markets, stores, factories, etc., is made by students to illustrate the useful plants both in the natural form and as used by man. (Norton.)

BOT. 106 f. *History and Philosophy of Botany* (1)—One lecture.

Discussion of the development of ideas and knowledge about plants, also a survey of contemporary work in botanical science. (Norton.)

BOT. 107 s. *Methods in Plant Histology* (2)—Two laboratories.

Principles and methods involved in the preparation of permanent slides. (Brown.)

For Graduates

BOT. 201 s. *Cytology* (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

A detailed study of the cell during its metabolic and reproductive stages. The major portion is devoted to chromosomes in mitosis and meiosis, and the relation of these stages to current theories of heredity and evolution. The laboratory involves the preparation, examination, and illustration of cytological material by current methods. (Bamford.)

BOT. 202 s. *Plant Morphology* (2)—Two lectures and demonstrations.

A comparative study of the morphology of the flowering plants, with special reference to their phylogeny and development. (Bamford.)

BOT. 203 f and s. *Seminar* (1).

The study of special topics in plant morphology, anatomy, and cytology. (Bamford.)

BOT. 204. *Research*—Credit according to work done. (Norton, Bamford.)

NOTE: See announcement on page 239 for further botany courses given at the Chesapeake Biological Laboratory.

B. Plant Pathology and Mycology

PLT. PATH. 1 f. *Diseases of Plants* (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

An introductory study in the field, in the laboratory, and in the literature, of symptoms, causal agents, and control measures of the diseases of plants. The work is so arranged that a student may devote part of his time to the important diseases of the plants in which he is particularly interested.

For Advanced Undergraduates and Graduates

PLT. PATH. 101 f. *Diseases of Fruits* (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1 f.

An intensive study intended to give a rather thorough knowledge of the subject matter, such as is needed by those who expect to become advisers in fruit production, as well as those who expect to become specialists in plant pathology. (Temple.)

PLT. PATH. 102 s. *Diseases of Garden and Field Crops* (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1 f.

The diseases of garden crops, truck crops, cereal and forage crops. Intended for students of vegetable culture, agronomy, and plant pathology, and for those preparing for county agent work. (Temple.)

PLT. PATH. 103 s. *Research Methods* (2)—One conference and five hours of laboratory work. Prerequisite, Plt. Path. 1 f, or equivalent.

Technic of plant disease investigations; sterilization; cultural methods; isolation of pathogens; inoculation methods; and photography. (Woods.)

PLT. PATH. 104 f and s. *Minor Investigations* (1-3)—Credit according to work done. A laboratory course with conferences. Prerequisite, Plt. Path. 1 f.

In this course only minor problems or special phases of major investigations may be undertaken. Their solution may include a survey of the literature on the problem under investigation and both laboratory and field work. (Norton, Temple, Woods.)

PLT. PATH. 105 s. *Diseases of Ornamentals* (2)—Two lectures.

The most important diseases of plants grown in greenhouse, flower garden, and landscape, including shrubs and shade trees. (Temple.)

PLT. PATH. 106 y. *Seminar* (1).

Conferences and reports on plant pathological literature and on recent investigations. (Temple, Norton, Woods.)

PLT. PATH. 107 f. *Plant Disease Control* (3)—Two lectures; one laboratory. Prerequisite, Plt. Path. 1 f.

An advanced course dealing with the theory and practice of plant disease control; the preparation of sprays and other fungicides and the testing of their toxicity in greenhouse and laboratory; demonstration and other extension methods adapted to county agent work and to the teaching of agriculture in high schools. (Temple.)

PLT. PATH. 108 f. *Mycology* (4)—Two lectures; two laboratories.

An introductory study of the morphology, life histories, classification, and economics of the fungi. (Norton, Woods.)

For Graduates

PLT. PATH. 201 s. *Virus Diseases* (2)—Two lectures.

An advanced course, including a study of the current literature on the subject and the working of a problem in the greenhouse. (Woods.)

PLT. PATH. 203 f. *Non-Parasitic Diseases* (3)—Two lectures; one laboratory.

Effects of maladjustment of plants to their environment; injuries due to climate, soil, gases, dusts and sprays, fertilizer, improper treatment and other detrimental conditions. (Not given in 1938-1939.) (Norton.)

PLT. PATH. 205 y. *Research*—Credit according to work done. (Norton, Temple, Woods.)

C. Plant Physiology

For Advanced Undergraduates and Graduates

PLT. PHYS. 101 f. *Plant Physiology* (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

A summary view of the general physiological activities of plants. The aim in this course is to stress principles rather than factual details.

(Brown.)

PLT. PHYS. 102 s. *Plant Ecology* (3)—Two lectures; one field trip. Prerequisite, Bot. 1 f.

The study of plants in relation to their environments. Plant formations and successions in various parts of the country are briefly treated. Much of the work, especially the practical, must be carried on in the field, and for this purpose type regions adjacent to the University are selected. (Brown.)

For Graduates

PLT. PHYS. 201 s. *Plant Biochemistry* (4)—Two lectures; two laboratories. Prerequisite, an elementary knowledge of plant physiology and organic chemistry.

An advanced course in plant physiology, in which the chemical aspects are especially emphasized. It deals with the important substances in the composition of the plant body and with the important processes in plant life. (Appleman, Shirk.)

PLT. PHYS. 202 Af. *Plant Biophysics* (2)—Two lectures. Prerequisites, Bot. 1 f and Plt. Phys. 101 f or equivalent.

An advanced course dealing with the operation of physical forces in plant life processes. Students electing this course should elect Plt. Phys. 202 Bf. (Appleman, Brown, duBuy.)

PLT. PHYS. 202 Bf. *Biophysical Methods* (2). (Shirk.)

PLT. PHYS. 203 s. *Plant Microchemistry* (2)—One lecture; one laboratory. Prerequisites, Bot. 1 f, Chem. 1 y, or equivalents.

The isolation, identification, and localization of organic and inorganic substances found in plant tissues by micro-technical methods. The use of these methods in the study of metabolism in plants is emphasized. (Brown.)

PLT. PHYS. 204 f. *Growth and Development* (2). (Appleman, duBuy.)

PLT. PHYS. 205 f and s. *Seminar* (1).

Students are required to prepare reports on papers in the current literature. These are discussed in connection with the recent advances in the subject. (Appleman.)

PLT. PHYS. 206 y. *Research*—Credit according to work done.

Students must be specially qualified by previous work to pursue with profit the research to be undertaken. (Appleman, Brown, duBuy.)

BUSINESS ADMINISTRATION‡

PROFESSORS STEVENS, WEDEBERG, GRUCHY; ASSOCIATE PROFESSOR MARSHALL; ASSISTANT PROFESSORS LAYTON, DANIELS, CISSEL; MR. REID, MR. MULLIN, MR. TRIPLETT, MR. ———.

Some of the specialized courses in the following lists may be offered only in alternate years, whenever prospective enrollments therein do not justify

‡See also related courses in Economics; also in Agricultural Economics, especially A. E. 1 f, 2 s, 101 s, 104 s, 106 s, 109 y, 210 s, 211 f, 212 f, 213 s, and 214 f.

repeating annually. Such courses are so arranged, however, that students may include any course by election during either the junior or the senior year. Alternating courses are indicated as follows:

*Offered 1938-1939. May or may not be offered in 1939-1940.

†Offered 1939-1940. May or may not be offered in 1938-1939.

A. Accounting

ACCT. 51 f and 52 s. *Principles of Accounting* (4) each semester—Three lectures; one laboratory. (Equivalent of former A. and F. 9y.)

This course has two aims, namely, to give the prospective business man an idea of accounting as a means of control, and to serve as a basic course for advanced and specialized accounting. A study is made of methods and procedures of accounting in the sole proprietorship, partnership, and corporation.

For Advanced Undergraduates and Graduates

ACCT. 101 f and 102 s. *Advanced Accounting* (3) each semester—Three lectures. Prerequisite, Acct. 52s.

Advanced theory and problems in connection with the following: working papers, statements; corporations; actuarial science; cash; accounts receivable; notes and acceptances; inventories, consignments; installment sales; tangible fixed assets; intangible assets; investments; liabilities; funds and reserves; correction of statements and books; comparative statements; the analysis of working capital; miscellaneous ratios; profit and loss analysis; and statement of application of funds.

ACCT. 121 f. *Cost Accounting* (2)—Two lectures. Prerequisite, Acct. 52 s.

The need and value of cost accounting; cost systems and cost classifications; classification of accounts; subsidiary ledgers and cost records; outline of specific order cost accounting; accounting for material; material storage and consumption; valuation of materials; accounting for labor costs; special features of accounting for labor cost; accounting for manufacturing expense; distribution of service department costs; distribution of manufacturing expense to production; control of distribution cost; monthly closing entries. Theory, problems, and practice set. (Cissel.)

ACCT. 122 s. *Advanced Cost Accounting* (2)—Two lectures. Prerequisite, Acct. 121 f.

Preparation of analytical statements; comparative statements; process cost accounting; standard costs; analysis of variances; accounting for standard costs; estimating cost systems; special considerations; arguments for and against including interest on investments; graphic charts; uniform methods. A discussion of advanced theory and problems. (Cissel.)

ACCT. 149. *Apprenticeship in Public Accounting*. No credit. Open only to seniors in the upper ten per cent of the class. Prerequisite, Acct. 171 (credit or concurrent registration).

A one month's apprenticeship with nationally known firms from about January 15 to February 15.

ACCT. 161 f. *Income Tax Procedure* (3)—Three lectures. Prerequisite, Acct. 102 s.

Income tax in theory and practice. Selected cases and problems illustrating the definition of taxable income of individuals, corporations, and estates. (Wedeborg.)

ACCT. 171 f and 172 s. *Auditing Theory and Practice* (2) each semester—One lecture; one laboratory. Prerequisite, Acct. 102 s.

Principles of auditing, including a study of different kinds of audits, the preparation of reports, and illustrative cases or problems. (Cissel.)

ACCT. 181 f and 182 s. *Specialized Accounting* (3) each semester—Three lectures. Prerequisite, Acct. 102 s.

Accounting for partnerships; ventures; insurance; receiverships; branches; consolidations; mergers; foreign exchange; estates and trusts; budgets; public accounts; savings banks; commercial banks; national banks; building and loan associations; stock brokerage; consignments; department stores; real estate; extractive industries; hotels; government; electric utilities; and others. (Wedeborg.)

ACCT. 186 s. *C. P. A. Problems* (3)—Three lectures. Prerequisite, consent of the instructor.

This course is arranged to coordinate all previous work in accounting with special emphasis on the solution of practical C. P. A. problems and the discussion of C. P. A. theory. (Wedeborg.)

For Graduates

ACCT. 228 f and 229 s. *Accounting Systems* (6). Prerequisite, Acct. 181 f and 182 s. Students who do not have these prerequisites must attend all classes in Acct. 181 f and 182 s concurrently.

A discussion of the more difficult problems in connection with the industries covered in Acct. 181 f and 182 s. Also includes the statement of affairs; realization and liquidation account; parent and subsidiary accounting; and financing. (Wedeborg.)

ACCT. 299 f. *Special Problems in Accounting* (3). Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Investigations of specific problems, as directed by individual conferences with the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Wedeborg.)

B. Finance‡

FINANCE 51 s. *Money and Credit* (2). Prerequisite, Econ. 51 f. (Equivalent to former Econ. 101 f.)

An analysis of the basic principles of money and credit; the history of money; the operations of the commercial banking system. (Gruchy.)

For Advanced Undergraduates and Graduates

FINANCE 105 f.* *Consumer Financing* (3). Prerequisite, Econ. 51 f or 57.

The economics of installment selling; methods of financing the consumer; and operations of the personal finance company. (Gruchy.)

FINANCE 106 f.† *Public Finance* (3). Prerequisite, Econ. 51 f or 57. (Equivalent to former Econ. 114 s.)

The nature of public expenditures; sources of revenue; taxation; and budgeting. Special emphasis on the practical, social, and economic problems involved. (Gruchy.)

FINANCE 111 f. *Corporation Finance* (3). Prerequisite, Econ. 51 f or 57, Acct. 51. (Not open to students who have credit in former Econ. 103 f.)

The organization and financing of a business enterprise. Types of securities and their utilization in apportioning income, risk, and control. Problems of capitalization, refunding, reorganization, and expansion. Procurement of capital. Public regulation of the sale of securities. (Stevens, Mullin.)

FINANCE 115 f. *Investments* (3). Prerequisite, Finance 111 f. (Equivalent to former A. and F. 104 s.)

Sources of information for the investor. Classes of investments, government bonds, municipals, real estate mortgages, public utilities, railroads, industrial securities, movement of security prices, analysis of financial statements, adapting the investment policy to the purpose and needs of the investor. (Stevens, Mullin.)

FINANCE 116 s.† *Investment Banking* (3). Prerequisite, Econ. 52 s.

A study of the functions and operations of investment banking institutions and their relation to the market for long-term credit, and with emphasis on the trends and problems of investment banking. (Gruchy.)

FINANCE 118 f.† *Stock and Commodity Exchanges* (3). Prerequisite, Econ. 52 s or 57.

An analysis of the operations of the various exchanges. Brokerage houses and methods of trading. Regulation of the exchanges. (Gruchy.)

FINANCE 121 s.* *Banking Principles and Practices* (3). Prerequisite, Econ. 52 s or 57.

The incorporation, organization, and operation of banks. Functions of departments and problems of customer relations. Bank legislation and governmental regulation. (Gruchy.)

‡See also related courses in Agricultural Economics, especially A. E. 104 s, 210 s, and 211 f.

FINANCE 125 f.* *Credits and Collections* (3). Prerequisite, Acct. 52. Nature and function of credit and use of credit instruments. Principles of credit investigation and analysis. The work of the credit manager. (Gruchy.)

FINANCE 129 s.† *International Finance* (3). Prerequisite, Econ. 52 s or 57. Foreign exchange theory and practice. International aspects of monetary and banking problems. International money markets. The gold problem and the Bank for International Settlements. (Gruchy.)

FINANCE 141 f.† *Insurance* (3). Prerequisite, Econ. 51 f. (Similar subject matter to former Econ. 105 s.)

A survey of the major principles and practices of life and property insurance, with special reference to their relationship to our social and economic life.

FINANCE 149 f, s, or S. *Financial Internship* (1-3). Prerequisite, credit or concurrent registration in Finance 51 f and any specialized finance courses needed for proper understanding of a particular business, such as Finance 105, 106, 111, 115, 116, 118, 125, 129, 141 or 151. Consent of the instructor is necessary; this will not be given unless the position arranged for a given registrant in a commercial business is of such a nature that effective experience can be obtained.

Practice in actual work in an approved financial institution under guidance. The method of individual conferences, reports, and collateral reading. (Gruchy.)

FINANCE 151 s.† *Real Estate* (3). Prerequisite, Econ. 51 f or 57.

The principles and practices involved in owning, operating, merchandising, leasing, and appraising real estate and real estate investments.

FINANCE 199 s. *Financial Analysis and Control* (3). Prerequisite, senior standing or consent of instructor, and Finance 111 f.

Internal administration of a business from the viewpoint of the chief executive. Departmentalization and functionalization, anticipation and budgetary control of sales, purchases, production, inventory, expenses, and assets. The coordination of financial administration. Policy determination, analysis, and testing. (Stevens, Mullin.)

For Graduates

FINANCE 229 f and s. *Special Problems in Finance* (1-6). Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Individual study of specific problems as directed by the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Stevens, Gruchy.)

C. Marketing‡

For Advanced Undergraduates and Graduates

MKT. 101 f. *Principles of Marketing* (3). Prerequisite, Econ. 52 s or 57 f or s. (Equivalent to former A. and F. 140 s.)

A study of the fundamental principles of assembling and dispersing manufactured goods; functions of wholesale and retail middlemen; branch house distribution; mail order and chain store distribution; price and price policies; cash and quality discounts; price maintenance; and a discussion of the problem of distribution costs. (Reid.)

MKT. 105 s. *Salesmanship and Salesmanagement* (3). Prerequisite, Econ. 52 s or 57.

An analysis of the fundamental principles of salesmanship and the technique of personal presentation of ideas, goods, and services. Analysis of customer buying motives, habits, and sales reactions. The structure and function of the sales organization and its relation to the activities of the production and other departments. Building, training, equipping, stimulating, and supervising a sales force. (Reid.)

MKT. 109 f.* *Principles of Advertising* (3). Prerequisite, Econ. 52 s or 57 f or s. (Equivalent to former A. and F. 142 s.)

Functions and economic implications of advertising; selection and adaptation of media to various lines of business. Layouts, copy writing, and campaign planning. Objectives, appropriations, and measurements of effectiveness. (Mullin.)

MKT. 115 s.* *Purchasing Technique* (3). Prerequisite, junior standing.

Ascertaining sources of supply; substitutes; utilization of catalogues, files, pooled information, and cooperative purchasing; buying on specifications, sampling, testing, bargaining, terms, discounts, relations with salesmen. Procurement, analysis, and interpretation of market and price data. Materials control. Interdepartmental and office organization. (Reid.)

MKT. 119 s.† *Retail Store Management and Merchandising* (3). Prerequisite, Mkt. 101 f.

Retail store organization, location, and store policy; pricing policies, price lines, brands, credit policies; records as a guide to buying; budgetary control of inventory and expenses; purchasing methods; supervision of selling; training and supervision of retail sales force; administrative problems.

MKT. 149 f, s, or S. *Internship in Marketing* (1-3). Prerequisite, credit or concurrent registration in Mkt. 101, and any specialized marketing course needed for proper understanding of a particular business, such as Mkt. 105, 109, 115, or 119. Consent of the instructor is necessary; this will not be given unless the position arranged for a given registrant in a commercial business is of such a nature that effective experience can be obtained.

‡See also related courses in Agricultural Economics, especially A. E. 102 s, 103 f, 105 s, 106 s, and 214 s; and in Psychology, especially Psych. 3 s, 140 f, and 141 s.

Practice in actual marketing work under guidance. The method of individual conferences, reports, and collateral reading.

(Stevens, Reid, Mullin.)

MKT. 199 s.† *Marketing Research and Market Policies* (3). Prerequisite, nine credit hours in marketing.

A study of the methods and problems involved in marketing research in establishing or determining marketing policies. (Stevens, Reid.)

For Graduates

MKT. 229 f or s. *Problems in Marketing* (1-6). Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Individual study of specific problems as directed by the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Marketing Staff.)

D. Trade and Transportation‡

T. AND T. 1 f. *Economic Geography* (3). (Equivalent to former Econ. 1 f.)

A study of economic and physical factors which are responsible for the location of industries and which influence the production, distribution, and exchange of commerce throughout the world. This course deals primarily with regional geography; that is, the industrial development and commerce of the separate regions and countries.

Juniors receive two credits; not open to seniors.

T. AND T. 4 s. *Development of Commerce and Industry* (3). (Equivalent to former Econ. 2 s.)

Ancient and medieval economic organization. The guild, domestic, and mercantile systems. The industrial revolution, laissez-faire, modern industrial and commercial organizations in Europe and America. Post-war restrictions on commerce.

Juniors receive two credits; not open to seniors.

For Advanced Undergraduates and Graduates

T. AND T. 101 f. *Principles of Foreign Trade* (3). Prerequisite, Econ. 51 f, T. and T. 1 f, T. and T. 4 s. (Equivalent to former Econ. 116 s.)

The basic principles of import and export trade, as influenced by the differences in methods of conducting domestic and foreign commerce.

T. AND T. 111 f.* *Transportation* (3). Prerequisite, Econ. 51 f or 57 f or s. (Similar to former Econ. 112 s and A. E. 101 s.)

Development of railway and truck transportation in the United States. Facilities for transporting agricultural and industrial products. Rate

‡See also related courses in Agricultural Economics, especially A. E. 1 f and 212 f.

structures and tariffs. Effects of changing transportation methods upon agricultural and business organization.

T. AND T. 121 s.* *Export and Import Trade Procedure* (3). Prerequisite, T. and T. 101 f.

Functions of various exporting agencies; documents and procedures used in exporting and importing transactions. Methods of procuring goods in foreign countries; financing of import shipments; clearing through the customs districts; and distribution of goods in the United States. Field trips are arranged to study actual import and export procedure. A nominal fee is collected before each trip to cover expenses incurred. (Daniels.)

T. AND T. 149 f, s, or S. *Foreign Trade Internship* (1-3). Prerequisite, credit or concurrent registration in T. and T. 101 and any other specialized course needed for proper understanding of a particular business, such as T. and T. 111 f, 121 s. Consent of the instructor is necessary; this will not be given unless the position arranged for a given registrant in a commercial business is of such a nature that effective experience can be obtained.

Practical work under guidance in an approved exporting or importing house. The method of individual conferences, reports, and collateral reading. (Daniels.)

For Graduates

T. AND T. 229 s. *Problems in Foreign Trade* (1-3). Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Individual study of specific problems as directed by the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Daniels.)

E. Organization and Management‡

O. AND M. 51 f. *Elements of Business* (2). Prerequisite, junior standing and consent of the instructor.

A rapid survey of the elements of business and of the management of personal finances for students of home economics and other curricula not primarily concerned with business administration. Majors in General or Applied Economics will be admitted to the course only in case there are vacancies after providing for other students, and they will be required to do additional work.

For Advanced Undergraduates and Graduates

O. AND M. 101 f and 102 s. *Business Law* (3) each semester. Prerequisite, junior standing. Section II is limited to majors in Accounting, or those who have consent of the instructor.

‡See also related courses in Psychology, especially Psych. 3 s, 160 f, and 161 s.

Legal aspects of business relationships, contracts, negotiable instruments, agency, partnerships, corporations, real and personal property, and sales. Section II is a more intensive treatment of the law of contracts, sales, negotiable instruments, agency and partnerships than is given in Section I, designed to prepare students for the accounting profession in Maryland. (Layton.)

O. AND M. 103 f. *Advanced Business Law* (2). Prerequisite, O. and M. 101 f and 102 s, Section II.

The principles of the law of corporations, trusts, and the administration of the estates of bankrupts and decedents, presented in a manner calculated to prepare students for the accounting profession in Maryland. (Layton.)

O. AND M. 110 f. *Fundamentals of Business Administration* (2). Prerequisite, open only to senior Engineers.

An analysis of the business structure, showing the functions of production, marketing, and finance, and the use of the tools of accounting and statistics. Designed to show the engineer his relationship as a functional expert to other functional experts and to give an academic opportunity to apply technical knowledge in business problems.

O. AND M. 121 s. *Industrial Management* (3). Prerequisite, Econ. 51 f or 57 f or s.

A study of major problems of management in the acquisition, organization, and control of the factors and agents of production—plant, machinery and equipment, raw materials, and personnel. Factory location and layout. Scheduling. Personnel organization and incentives. (Layton.)

O. AND M. 149 f, s, or S. *Cooperative Internship* (1-3). Prerequisite, credit or concurrent registration in Econ. 161 s and any specialized courses needed for proper understanding of a particular cooperative enterprise. Consent of the instructor is necessary; this will not be given unless the position arranged for a given registrant is of such a nature that effective experience can be obtained.

Practical work under guidance in an approved cooperative organization. The method of individual conferences, reports, and collateral reading. (Stevens.)

For Graduates

O. AND M. 201 f and 202 s. *Research in Business Organization and Management* (1-3)—Credits each semester; credit in proportion to work accomplished. Prerequisite, consent of the instructor. Students must be especially qualified by previous work to pursue effectively the research to be undertaken.

Investigation or original research in problems of marketing, finance, accounting, trade and transportation, organization, and management, under supervision of the instructor. (Staff.)

O. AND M. 291 f and s. *Problems in Business Organization* (1-6). Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Individual investigations of specific problems under direction of the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Layton.)

O. AND M. 299 f and s. *Problems in Cooperative Administration* (1-6). Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor. Problems may involve practical work with the National Cooperative Council and other Washington (D. C.) or Maryland cooperative organizations. The subjects selected for investigation may be closely allied with, but must not be the same as the subject discussed in the student's major thesis. (Stevens.)

CHEMISTRY

PROFESSORS BROUGHTON, DRAKE, HARING, WHITE;

ASSOCIATE PROFESSOR WILEY;

ASSISTANT PROFESSOR SUPPLEE;

DR. LAMB, DR. SVIRBELY, DR. WILLIAMS, MR. ADAMS, MR. BOWER, MR. BROOKS, MR. CARHART, MR. HELLER, MR. HORNE, MR. LEED, MR. OSBORN, MR. SMITH, MR. STANTON, MR. SWANGO, MR. WOLFE, MR. ZAPPONI.

A. General Chemistry

CHEM. 1 A y. *General Chemistry* (8)—Two lectures; two laboratories.

A study of the non-metals and metals. One of the main purposes of the course is to develop original work, clear thinking, and keen observation.

Course A is intended for students who have never studied chemistry, or have passed their high-school chemistry with a grade lower than B. Fee, \$7.00 per semester.

CHEM. 1 B y. *General Chemistry* (8)—Two lectures; two laboratories.

This course covers the same ground as Chem. 1 A y; but the subject matter is taken up in more detail, with emphasis on chemical theory and important generalization. The laboratory work deals with fundamental principles, the preparation and purification of compounds, and a systematic qualitative analysis of the more common metals and acid radicals.

Course B is intended for students who have passed an approved high-school chemistry course with a grade not lower than B. Fee, \$7.00 per semester.

CHEM. 2 y. *Qualitative Analysis* (6)—Two lectures; one laboratory the first semester; and one lecture; two laboratories the second semester. Prerequisite, Chem. 1 y.

A study of the reactions of the common metals and the acid radicals,

their separation and identification, and the general underlying principles. Fee, \$7.00 per semester.

CHEM. 3 y. *Introductory Chemistry* (6)—Two lectures; one demonstration.

The subject matter is essentially the same as that of Chem. 1 A y. This course is designed for students desiring a working knowledge of elementary chemistry, without the laboratory part. It is not accepted as a prerequisite for advanced chemistry courses. If one subsequently desires credit for Chem. 1 y, he may secure this by adding two credits in the laboratory of Chem. 1 y s. A demonstration fee of five dollars is required. Fee, \$3.00 per semester.

For Graduates

CHEM. 200 A y. *Chemistry of the Rarer Elements* (4)—Two lectures. Prerequisite, Chem. 2 y.

This course is devoted to a study of the elements not usually considered in the elementary course. (White.)

CHEM. 200 B y. *Advanced Inorganic Laboratory* (4)—Two laboratories. Prerequisite, consent of instructor.

A laboratory study of the analyses and the compounds of elements considered in Chem. 200 A y. Fee, \$7.00 per semester. (White.)

CHEM. 201 f or s. *An Introduction to Spectrographic Analysis* (1).

This is a laboratory course designed to give the student the fundamental principles of spectrographic analysis. Fee, \$7.00 per semester. (White.)

CHEM. 202 y. *Theory of Solutions* (4)—Two lectures. Prerequisite, Chem. 102 A y and Math. 23 y.

A systematic study of the theories and properties of solutions. Subjects considered are solubility, regular solutions, dipole moments, solution kinetics, and modern theories of dilute and concentrated electrolytes. (Svirbely.)

CHEM. 230 f. *Chemical Microscopy* (1).

A laboratory course designed to give the student the fundamental principles of microscopic analysis. Fee, \$7.00 per semester. (White.)

B. Analytical Chemistry

CHEM. 4 f or s. *Quantitative Analysis* (4)—Two lectures; two laboratories. Prerequisite, Chem. 1 y.

Quantitative analysis for premedical students, with special reference to volumetric methods. Fee, \$7.00 per semester.

CHEM. 6 y. *Quantitative Analysis* (8)—Two lectures; two laboratories. Prerequisite, Chem. 2 y.

The principal operations of gravimetric analysis. Standardization of weights and apparatus used in chemical analysis. The principal operations

of volumetric analysis. Study of indicators, typical volumetric and colorimetric methods. The calculations of volumetric and gravimetric analysis are emphasized, as well as calculations relating to common ion effect. Required of all students whose major is chemistry. Fee, \$7.00 per semester.

For Advanced Undergraduates and Graduates

CHEM. 101 y. *Advanced Quantitative Analysis* (10)—Two lectures; three laboratories. Prerequisite, Chem. 6 y or its equivalent.

A broad survey of the field of inorganic quantitative analysis. In the first semester, mineral analysis is given. Included in this is analysis of silicates, carbonates, etc. In the second semester, the analysis of steel and iron is taken up. However, the student is given wide latitude as to the type of quantitative analysis he pursues during the second semester. Fee, \$7.00 per semester. (Wiley.)

C. Organic Chemistry

CHEM. 8 A y. *Elementary Organic Chemistry* (4)—Two lectures. Prerequisite, Chem. 1 y.

This course includes an elementary study of the fundamentals of organic chemistry, and is designed to meet the needs of students specializing in chemistry, and premedical students.

CHEM. 8 B y. *Elementary Organic Laboratory* (4)—One laboratory.

A course designed to familiarize the student with the fundamental methods of the organic laboratory. This course, with Chem. 8 A y, satisfies the premedical requirements in organic chemistry. Fee, \$8.00 per semester.

For Advanced Undergraduates and Graduates

CHEM. 116 y. *Advanced Organic Chemistry* (4)—Two lectures. Prerequisite, Chem. 8 A y and 8 B y or their equivalent.

This course is devoted to a more advanced study of the compounds of carbon than is undertaken in Chem. 8 A y. Graduate students who desire an accompanying laboratory course should elect Chem. 210 y. Juniors taking Chem. 116 y are expected to accompany it with Chem. 117 y, and to elect Chem. 118 y in their senior year. (Drake.)

CHEM. 117 y. *Organic Laboratory* (2)—One laboratory.

This course is devoted to an elementary study of organic qualitative analysis. The work includes the identification of unknown organic compounds, and corresponds to the more extended course, Chem. 207 s. Fee, \$8.00 per semester. (Williams.)

CHEM. 118 y. *Advanced Organic Laboratory* (2)—One laboratory.

A study of organic quantitative analysis and the preparation of organic compounds. Quantitative determinations of carbon and hydrogen, nitrogen, and halogen are carried out, and syntheses more difficult than those of Chem. 8 B y are studied. Fee, \$8 per semester. (Williams.)

For Graduates

CHEM. 203 f or s. *Special Topics in Organic Chemistry* (2-4-6)—A lecture course, which will be given any half-year when there is sufficient demand.

The course will be devoted to an advanced study of topics which are too specialized to be considered in Chem. 116 y. Topics that may be covered are dyes, drugs, carbohydrates, plant pigments, etc. The subject matter will be varied to suit best the needs of the particular group enrolled, and a student may register for the course for three semesters and acquire a total of six credits. (Drake.)

CHEM. 205 f or s. *Organic Preparations* (4)—A laboratory course, devoted to the synthesis of various organic compounds.

This course is designed to fit the needs of students whose laboratory experience has been insufficient for research in organic chemistry. Fee, \$8.00 per semester. (Williams.)

CHEM. 206 f or s. *Organic Microanalysis* (4)—A laboratory study of the methods of Pregl for the quantitative determination of halogen, nitrogen, carbon, hydrogen, methoxyl, etc., in very small quantities of material.

This course is open only to properly qualified students, and the consent of the instructor is necessary before enrollment. Fee, \$8.00 per semester. (Drake.)

CHEM. 207 f or s. *Organic Qualitative Analysis*. (Variable credit to suit student, with a minimum of 2 and a maximum of 6 credits.)

Laboratory work devoted to the identification of pure organic substances and of mixtures. The text used is Kamm's Qualitative Organic Analysis.

This course should be taken by students seeking a higher degree, whose major is organic chemistry. The work is an excellent preparation for the problems of identification one is likely to encounter while conducting research. Fee, \$8.00 per semester. (Williams.)

CHEM. 210 y. *Advanced Organic Laboratory* (4 or 6).

Students electing this course should elect Chem. 116 y. The content of the course is essentially that of Chem. 117 y and 118 y, but may be varied within wide limits to fit the needs of the individual student. Fee, \$8.00 per semester. (Williams.)

D. Physical Chemistry

For Advanced Undergraduates and Graduates

CHEM. 102 A y. *Physical Chemistry* (6)—Three lectures. Prerequisites, Chem. 6 y; Phys. 2 y; Math. 23 y.

For those taking laboratory, graduate students will elect Chem. 219 f and s (4), and undergraduates Chem. 102 B y (4).

This course aims to furnish the student with a thorough background in the laws of theories of chemistry. The gas laws, kinetic theory, liquids, solutions, elementary thermodynamics, thermochemistry, equilibrium, chemical kinetics, etc., will be discussed. (Haring.)

CHEM. 102 B y. *Physical Chemistry Laboratory* (4)—Two laboratories.

This course must be taken by undergraduates who desire to take laboratory work in connection with Chem. 102 A y. Fee, \$7.00 per semester. (Lamb.)

CHEM. 103 y. *Elements of Physical Chemistry* (6)—Two lectures; one laboratory. Prerequisites, Chem. 1 y; Phys. 1 y; Math. 8 f and 10 s or 21 f and 22 s. (Lamb.)

This course is designed to meet the needs of premedical students and others unable to pursue the subject further. Subjects discussed are gases and liquids, solutions, electrolytic conductance, colloidal solutions, thermochemistry, equilibria including indicators and buffers, reaction rates, electrochemistry including pH, etc. Quantitative experiments on these subjects are performed in the laboratory. Fee, \$7.00 per semester.

CHEM. 105 y. *Electrochemistry* (4)—Two lectures. Prerequisite, Chem. 102 A y.

This course is intended especially for chemical engineers. The first semester emphasizes theory and the second semester practical applications. (Haring.)

For Graduates

NOTE: CHEM. 102 A y and 102 B y or their equivalent are prerequisites for all advanced courses in physical chemistry.

CHEM. 212 A f and s. *Colloid Chemistry* (4)—Two lectures.

This is a thorough course in the chemistry of matter associated with surface energy. First semester, theory; second semester, practical applications. (Not given in 1938-1939.) (Haring.)

CHEM. 212 B f and s. *Colloid Chemistry Laboratory* (4)—Two laboratories, which must accompany or be preceded by Chem. 212 A f and s. (Not given in 1938-1939.) Fee, \$7.00 per semester. (Haring.)

CHEM. 213 f. *Phase Rule* (2)—Two lectures.

A systematic study of heterogeneous equilibria. One, two, and three component systems will be considered, with practical applications of each. (Haring.)

CHEM. 214 f and s. *Structure of Matter* (2)—Two lectures.

Subjects considered are radioactivity, isotopes, the Bohr and Lewis-Langmuir theories of atomic structure, and allied topics. (Not given in 1938-1939.) (Lamb.)

CHEM. 215 s. *Catalysis* (2)—Two lectures.

This course consists of lectures on the theory and applications of catalysis. (Haring.)

CHEM. 216 f and s. *Reaction Kinetics* (4)—Two lectures.

A study of reaction velocity in liquid and gaseous systems, and the effect of heat, light, etc. on the same. (Lamb.)

CHEM. 217 A f and s. *Electrochemistry* (4)—Two lectures.

A study of the principles and some of the practical applications of electrochemistry. First semester, theory; second semester, practical applications. (Haring.)

CHEM. 217 B f and s. *Electrochemistry Laboratory* (4)—Two laboratories, which must accompany or be preceded by Chem. 217 A f and s. Fee, \$7.00 per semester. (Haring.)

CHEM. 218 y. *Chemical Thermodynamics* (4)—Two lectures.

A study of the methods of approaching chemical problems through the laws of energy. (Not given in 1938-1939.) (Haring.)

CHEM. 219 f and s. *Physical Chemistry Laboratory* (4 or 6)—Two laboratories and one conference.

Students taking this course may elect 6 credits of lectures in Chem. 102 A y to replace the conference. Fee, \$7.00 per semester. (Lamb.)

E. Biological Chemistry

CHEM. 12 A y. *Elements of Organic Chemistry* (4)—Two lectures.

The chemistry of carbon and its compounds in relation to biology. This course is particularly designed for students in Agriculture and Home Economics.

CHEM. 12 B y. *Elementary Organic Laboratory* (2)—One laboratory. A course designed to familiarize the student with the fundamental methods of the organic laboratory. The course is designed to accompany Chem. 12 A y. Fee, \$8.00 per semester.

CHEM. 14 s. *Chemistry of Textiles* (3)—Two lectures; one laboratory. Prerequisite, Chem. 12 A y and Chem. 12 B f or s.

A study of the principal textile fibres, their chemical and mechanical structure. Chemical methods are given for identifying the various fibres and for a study of dyes and mordants. Fee, \$7.00 per semester.

For Advanced Undergraduates and Graduates

CHEM. 106 f or s. *Dairy Chemistry* (4)—One lecture; three laboratories. Prerequisite, Chem. 12 A y and Chem. 12 B y.

Lectures and assigned reading on the constituents of dairy products. This course is designed to give the student a working knowledge and laboratory practice in dairy chemistry and analysis. Practice is given in examining dairy products for confirmation under the food laws, detection of watering, detection of preservatives and added colors, and the detection of adulterants.

Students showing sufficient progress may take the second semester's work, and elect to isolate and make complete analysis of the fat or protein of milk. Fee, \$8.00 per semester. (Broughton.)

CHEM. 108 s. *General Physiological Chemistry* (4)—Two lectures; two laboratories. Prerequisite, Chem. 12 A y and Chem. 12 B y or their equivalent.

This course is a study of the fundamental principles of human nutrition, the chemistry of foods, digestion, absorption, assimilation, tissue composition, and excretion. The laboratory work consists of experiments in food analysis; salivary, gastric, pancreatic and intestinal digestion; and respiration. Fee, \$8.00 per semester. (Supplee.)

CHEM. 115 f or s. *Food Analysis* (3)—Three laboratories. Prerequisite, Chem. 4 f or s, or Chem. 12 A y and Chem. 12 B y.

This course is designed to give the student broad training in the analytical methods used in the food and feed industries. Fee, \$8.00 per semester. (Supplee.)

For Graduates

CHEM. 208 s. *Biological Analysis* (3)—Three laboratories.

A course in analytical methods of special value to students whose major field is the biological sciences. The work is varied to suit the needs or interests of the individual when possible. Fee, \$8.00 per semester. (Supplee.)

CHEM. 221 f or s. *Tissue Analysis* (3)—Three laboratories. Prerequisite, Chem. 12 A y and 12 B y or their equivalent.

A discussion and the application of the analytical methods used in determining the inorganic and organic constituents of plant and animal tissue. Fee, \$8.00 per semester. (Broughton.)

CHEM. 223 A f and s. *Physiological Chemistry* (4)—Two lectures. Prerequisite, Chem. 12 A y and Chem. 12 B y or their equivalent.

An advanced course in physiological chemistry. For the first semester the course consists of lectures and assigned reading on the constitution and reactions of proteins, fats, carbohydrates, and allied compounds of biological importance. The second semester deals with enzyme action, digestion, absorption, metabolism, and excretion. (Supplee.)

CHEM. 223 B f. *Physiological Chemistry Laboratory* (2). Prerequisites, Chem. 4 f or s and Chem. 12 A y and 12 B y.

A laboratory course to accompany Chem. 223 A f. Qualitative and quantitative analysis of foods; salivary, gastric, pancreatic, and intestinal digestion; and respiration. Fee, \$8.00 per semester. (Supplee.)

CHEM. 224 f or s. *Special Problems* (4-8)—A total of eight credit hours may be obtained in this course by continuing the course for two semesters. Laboratory, library, and conference work amounting to a minimum of ten

hours each week. Prerequisites, Chem. 223 A f and s, and consent of instructor.

This course consists of studies of special methods, such as the separation of the fatty acids from a selected fat, the preparation of carbohydrates or amino acids, and the determination of the distribution of nitrogen in a protein. The students will choose, with the advice of the instructor, the particular problem to be studied. Fee, \$8.00 per semester. (Supplee.)

F. History of Chemistry

CHEM. 121 y. *The History of Chemistry* (2)—One lecture. Prerequisite, Chem. 1 y and Chem. 8 y or their equivalent. Required of senior students in the Department of Chemistry.

The development of chemical knowledge, and especially of the general doctrines of chemistry which have been gradually evolved, from their earliest beginnings up to the present day. (Not given in 1938-1939.) (Broughton.)

G. Seminar and Research

CHEM. 228 f and s. *Seminar* (2)—Required of all graduate students in chemistry.

Students are required to prepare reports on papers in the current literature. These are discussed in connection with the recent advances in the subject. (Staff.)

CHEM. 229 f or s. *Research in Chemistry*. The investigation of special problems and the preparation of a thesis towards an advanced degree. (Staff.)

CLASSICAL LANGUAGES*

PROFESSOR HIGHBY.

Greek

GREEK 1 y. *Elementary Greek* (6)—Three lectures.

Drill and practice in the fundamentals of Greek grammar and the translation of simple prose.

GREEK 2 y. *Greek Grammar, Composition, and Translation of Parts of Xenophon and Plato* (8)—Four lectures. Prerequisite, Greek 1 y or two entrance units in Greek. (Not given in 1938-1939.)

Latin

LATIN 1 y. *Elementary Latin* (6)—Three lectures.

This course is intended to give a substantial and accurate knowledge of Latin grammar and syntax, together with practice in reading simple prose.

LATIN 2 y. (6)—Three lectures. Time is taken at the outset for a review of forms and syntax. Selections from prose writers, especially Cicero. Some simple work in prose composition. Translation from Vergil's *Aeneid*. Prerequisite, Latin 1 y or two entrance units in Latin.

*See also History 129 f and 130 s and Art 1 f and 2 s.

LATIN 3 y. (6)—Three lectures. Selected readings from Horace and other Latin poets. Prerequisites, Latin 1 y and 2 y or four entrance units in Latin.

COMPARATIVE LITERATURE

The work in Comparative Literature is offered jointly by the faculties of the Department of English and the Department of Modern Languages.

English 113 f and 114 s may be counted as Comparative Literature by students who have had Comp. Lit. 105 f and 106 s. English 124 s may also be counted as Comparative Literature.

COMP. LIT. 1 y. *Outlines of the World's Literature* (2)—Two lectures.

The object of the course is to acquaint students who have an interest in literary history with the principal literatures of the world. The study will be confined to the main movements and chief representatives of Greek, Latin, French, Italian, Spanish, and German. (Not given in 1938-1939.) (Prahl.)

COMP. LIT. 2 y. *Epic Poetry in European Literature* (2)—Two lectures.

The outstanding epic poems of Greek, Latin, French, Italian, Spanish, German, and Scandinavian literature will be studied with special emphasis on their interrelation, their historical and mythological background. (Prahl.)

For Advanced Undergraduates and Graduates

COMP. LIT. 101 f. *Greek Literature in English Translations* (3)—Three lectures.

Emphasis is laid on the development of the epic, tragedy, comedy, and other typical forms of literary expression. The debt of modern literature to the ancient Greek literature is discussed. (Prahl.)

COMP. LIT. 102 s. *Latin Literature in English Translations* (3)—Three lectures.

The course follows the same plan as Comp. Lit. 101 f. The study will show the relation of Latin literature to Greek literature, and its position in the literature of the world. (Prahl.)

COMP. LIT. 103 f. *Types of World Literature* (2)—Two lectures.

An historical and critical survey of the principal types of world literature, with special attention to the influence of classical myth and legend and of classical literary ideals upon English and American writers. (Harman.)

COMP. LIT. 104 s. *The Old Testament as Literature* (2)—Two lectures. For seniors and graduate students.

A study of the sources, development, and literary types. (Hale.)

COMP. LIT. 105 f. *Romanticism in France* (3)—Three lectures.

Lectures and readings in the French romantic writers from Rousseau to Baudelaire. Texts to be read in English. (Wilcox.)

COMP. LIT. 106 s. *Romanticism in Germany* (3)—Three lectures. Continuation of Comp. Lit. 105 f. German literature from Buerger to Heine. The reading is done in English translations. (Prahl.)

COMP. LIT. 107 f. *The Faust Legend in English and German Literature* (2)—Two lectures.

A study of the Faust Legend of the Middle Ages and its later treatment by Marlowe in *Dr. Faustus* and by Goethe in *Faust*. (Prahl.)

COMP. LIT. 108 y. *Medieval and Renaissance Continental Literature* (2)—Two lectures.

The course will deal with such movements as Scholasticism, Renaissance, Humanism. The importance of the great teachers of that time will be stressed. (Not given in 1938-1939.) (Prahl.)

COMP. LIT. 109 f. *A Study of Literary Criticism* (3)—Three lectures.

A survey of the major schools of criticism from Plato and Aristotle to the present day. (Not given in 1938-1939.) (Murphy.)

ECONOMICS‡

PROFESSORS STEVENS, GRUCHY, DEVAULT, WEDEBERG; ASSOCIATE PROFESSORS MARSHALL, WALKER; ASSISTANT PROFESSORS LAYTON, DANIELS, CISSEL, HAMILTON; MR. REID, MR. MULLIN.

Some of the specialized courses in the following lists may be offered only in alternate years, whenever prospective enrollments therein do not justify repeating annually. Such courses are so arranged, however, that students may include any course by election during either the junior or the senior year. Alternating courses are indicated as follows:

* Offered 1938-1939. May or may not be offered in 1939-1940.

† Offered 1939-1940. May or may not be offered in 1938-1939.

ECON. 51 f, 52 s. *Principles of Economics I* (3) each semester. Prerequisite, sophomore standing. (Econ. 51 f and 52 s are together the equivalent of former Econ. 3 y.)

A study of the general principles of economics; production, exchange, distribution, and consumption of wealth. Lectures, discussions, and student exercises.

ECON. 57 f or s. *Fundamentals of Economics* (3). Prerequisite, sophomore standing. Not open to students who have credit in Econ. 51 f and 52 s, in former Econ 3y, or in former Econ. 5 f or s.

A study of the general principles underlying economic activity. Designed to meet the needs of special groups, such as students in engineering, home economics, agriculture, and others, who do not take the course in Principles. Special sections designed especially to meet the needs of each of these groups will be set up whenever the enrollment justifies it.

‡See also related courses in Business Administration; also in Agricultural Economics, especially A. E. 1 f, 2 s, 104 s, 106 s, 109 y, 210 s, 211 f, 212 f, 213 s, and 214 s.

For Advanced Undergraduates and Graduates

ECON. 130 f. *Labor Economics* (3). Prerequisite, Econ. 51 f or 57 f or s. (Equivalent to former Econ. 109 f.)

Labor problems; insecurity, wages and income, hours, substandard workers, industrial conflict; wage theories; the economics of collective bargaining; unionism in its structural and functional aspects; recent developments. (Marshall.)

†ECON. 131 s. *Labor and Government* (3). Prerequisite, Econ. 51.

A study of society's efforts through legislation to improve labor conditions. State and federal laws and court decisions affecting wages, hours, working conditions, immigration, convict labor, union activities, industrial disputes, collective bargaining, and economic security. (Marshall.)

†ECON. 133 f. *Industrial Relations* (3). Prerequisite, Econ. 51 f.

A study of the development and methods of organized groups in industry with reference to the settlement of labor disputes. An economic and legal analysis of labor union and employer association activities, arbitration, mediation, and conciliation; collective bargaining, trade agreements, strikes, boycotts, lockouts, company unions, employee representation, and injunctions. (Marshall.)

*ECON. 136 s. *Economics of Consumption* (3). Prerequisite, Econ. 51 f or 57 f or s.

The place of the consumer in our economic system. An analysis of demand for consumer goods. The need for consumer-consciousness and a technique of consumption. Cooperative and governmental agencies for consumers. Special problems. (Marshall.)

†ECON. 145 s. *Public Utilities* (3). Prerequisite, Econ. 51 f or 57 f or s.

Economic and legal characteristics of the public utility status; problems of organization, production, marketing, and finance; public regulation and alternatives. (Layton.)

†ECON. 151 f. *Theories of Economic Reform* (3). Prerequisite, Econ. 51 f.

An investigation of some of the more important social reform movements and programs of the modern era. The course begins with an examination and evaluation of the capitalistic system, followed by an analysis of alternative types of economic control. (Marshall.)

*ECON. 152 s. *Social Control of Business* (3). Prerequisite, sophomore economics and O. and M. 101 f and 102 s (or concurrent registration therein).

The reasons for and the methods of avoidance, escape, and abuse of competition as a regulating force in business. Social control as a substitute for, or as a modification of, preservation of competition. Law as an instrument of social control through administrative law and tribunals. The constitutional aspects of social control. (Layton.)

ECON. 153 f. *Industrial Combination* (3). Prerequisite, Econ. 51 f.

The development of industrial combinations in the United States; the causes which brought about the trust movement; trade and business methods employed by these combinations; types of big business; anti-trust legislation in this country and its effects. (Not offered in 1938-1939.)

ECON. 161 s. *Economics of Cooperative Organization* (3). Prerequisite, Mkt. 101 f or A. E. 102 s, Finance 111 f. For 1938-1939, concurrent registration in the prerequisites will suffice. (See also O. and M. 149 f, s, or S, A. E. 103 f, and O. and M. 299 f and s.)

Analysis of the principles and practice of cooperation in economic activity from the viewpoint of effective management and public interest. Potentialities, limitations, and management problems of consumer, producer, marketing, financial, and business men's cooperatives. (Stevens.)

ECON. 191 s. *Contemporary Economic Theory* (3). Prerequisite, senior or graduate standing.

A survey of recent trends in English, American and Continental economic thought, with special attention paid to the institutionalists, the welfare economists, and the mathematical economists. (Gruchy.)

For Graduates

ECON. 201 f and 202 s. *Research* (1-3). Credits each semester; credit in proportion to work accomplished. Prerequisite, consent of the instructor. Students must be especially qualified to pursue effectively the research to be undertaken.

Investigation or original research in problems of economics under supervision of the instructor. (Staff.)

ECON. 203 y. *Seminar* (4). Prerequisite, concurrent graduate major in economics or business administration and consent of instructor.

Discussion of major problems in the field of economic theory, accounting, cooperation or business. (Staff.)

ECON. 205 f. *History of Economic Thought* (3).

A study of the development of economic thought and theories, including the ancients, the Greeks, the Romans, scholasticism, mercantilism, physiocrats, Adam Smith and contemporaries, Malthus, Ricardo, and John Stuart Mill. (Marshall.)

ECON. 206 s. *Economic Theory in the Nineteenth Century* (3).

A study of the various schools of economic thought, particularly the classicists, the neo-classicists, the Austrians, and the socialists. (Marshall.)

ECON. 207 y. *The Economics of Alfred Marshall* (6).

Study of the life work of the great English economist. (Given in 1937-1938, not offered in 1938-1939.) (Gruchy.)

ECON. 210 f and s. *Special Problems in Economic Investigation* (1-3).—Each semester credit in proportion to work accomplished.

Technics involved in economic research. Practice in drawing up schedules and programs. Individual conferences and reports. (Given in 1937-1938; not offered in 1938-1939.) (Stevens.)

ECON. 233 s. *Problems in Industrial Relations* (3). Prerequisite, preliminary courses in the field of specialization, and permission of the instructor. The subjects selected for study may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Marshall.)

ECON. 252 s. *Problems in Government and Business Interrelations* (3). Prerequisite, preliminary courses in the field of specialization, and permission of the instructor. The subjects selected for study may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Layton.)

ECON. 299 f and s. *Problems in Economics of Cooperation* (1-6). Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor. Problems may involve practical work with the National Cooperative Council and other Washington, D. C., or Maryland cooperative organizations. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Stevens.)

EDUCATION

PROFESSORS SMALL, LONG, MACKERT, BROWN; ASSOCIATE PROFESSOR BRECHBILL; DR. POWERS; MRS. BARTON; MISS CLOUGH; MRS. FRASER; MISS K. SMITH; MISS M. SMITH; MR. _____

A. History and Principles

ED. 2 f. *Introduction to Teaching-A* (2)—Required of sophomores in Education.

A finding course, with the purpose of assisting students to decide whether they have qualities requisite to success in teaching. Study of the physical qualifications, personality traits, personal habits, use of English, speech, and habits of work; and of the nature of the teacher's work.

ED. 3 s. *Introduction to Teaching-B* (2).

A continuation of Ed. 2 f.

ED. 5 f or s. *Technic of Teaching* (2)—Required of juniors in Education. Prerequisite, Psych. 10 f.

Educational objectives and outcomes of teaching; types of lessons; problem, project, and unit; measuring results and marking; socialization and directed study; classroom management.

ED. 6 s. *Observation of Teaching* (1)—Prerequisite, Psych. 10 f. Twenty hours of directed observation. Reports, conferences, and criticisms.

ED. 7 f. *Observation of Teaching* (1).

Continuation of Ed. 6s.

For Advanced Undergraduates and Graduates

ED. 101 f. *History of Education* (2). Greco-Roman, Medieval, and Early Modern Education.

A survey of the evolution in Europe of Educational theory, institutions, and practices from the Greco-Roman era to 1750. (Long.)

ED. 102 s. *History of Modern Education* (2).

Continuation of Ed. 101 f.

The survey of the modern period is directed to the creators of modern education and the bases on which modern educational systems have been founded in various countries. (Long.)

ED. 103 s. *Principles of Secondary Education* (3). Prerequisites, Psych. 10 f and Ed. 5 s.

Evolution of the high school; European secondary education; articulation of the high school with the elementary school, college, and technical school, and with the community and the home; the junior high school; vocational education; high school pupils; programs of study and the reconstruction of curricula; teaching staff; student activities. (Brechtbill.)

ED. 105 f. *Educational Measurements* (3)—Three lectures. Prerequisites, Psych. 10 f or equivalent.

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

ED. 107 f or s. *Comparative Education* (2).

The forces that cause different systems of education, and the characteristic differences in the educational policies and practices in various countries are studied in this course. The major emphasis is upon certain European systems. (Long.)

ED. 108 f or s. *Comparative Education* (2).

This course is similar to Ed. 107, an important difference being that education in Latin America receives major attention. (Long.)

ED. 110 f. *The Junior High School* (2).

This course considers the functions of the junior high school in the American public school system. Its development, present organization, curricula, and relation to upper and lower grades will be emphasized.

ED. 111 f. *Lives of Scientists* (2).

A study of the major achievements and interesting incidents in the lives of the pioneers of science. Though designed especially to provide enrichment material for the use of high school teachers, the course is of general cultural value. (Brechtbill.)

ED. 115 A f. *Seminar in Course of Study Construction* (2-3).

A course for advanced students, teachers, and supervisors in the principles and procedures of curriculum making. Each student deals with some individual problem in curriculum making; e. g., units for science, the social studies, English, etc.

The course is adjusted to individual needs, with class periods for the discussion of general principles and procedures, and separate laboratory periods arranged by the instructor. (M. Smith.)

ED. 115 B s. *Seminar in Course of Study Construction* (2-3).

Continuation of Ed. 115 A f. (M. Smith.)

ED. 193 f. *Visual Education* (2).

Visual impressions in their relation to learning; investigations into the effectiveness of instruction by visual means; projection apparatus, its cost and operation; slides, film strips, and films; physical principles underlying projection; the integration of visual materials with organized courses of study; means of utilizing commercial moving pictures as an aid in realizing the aims of the school. (Brechtbill.)

See also *Agricultural Education and Rural Life*, p. 215.

For Graduates

ED. 200 f. *Organization and Administration of Public Education* (3).

This course deals objectively with the organization, administration, curricula, and present status of public education in the United States. (Small.)

ED. 201 s. *Educational Interpretations* (3).

In this course a study is made of the social, economic, political, and cultural environment in which American educational institutions and policies have developed; and of the function of education in environmental change. (Small.)

ED. 204 s. *High School Administration and Supervision* (3).

This course will consider the principal's duties in relation to organization for operation, administration, and supervision of instruction, and community relationships.

ED. 206 s. *History of American Education to 1850* (2).

The development of the public school in America to 1850. (Long.)

ED. 215 y. *Seminar in Secondary Education* (4-6).

(The first semester's work may receive credit whether or not the course is carried the second semester.)

A study of pressing problems with which secondary education is faced at the present time.

ED. 250 y. *Seminar in Education* (2-4).

Required of all candidates for the Master's degree whose majors are in the field of education. (Staff.)

Note: See also Phys. Ed. 201 y, page 267.

B. Educational Psychology

See Psychology, page 326.

C. Methods in High School Subjects

For Advanced Undergraduates and Graduates

Graduate credit for courses in this section will be given only by special permission of the College of Education.

ED. 120 s. *English in the High School* (2). Prerequisite, Psych. 10 f.

Objectives in English in the different types of high schools; selection and organization of subject matter in terms of modern practice and group needs; evaluation of texts and references; bibliographies; methods of procedure and types of lessons; the use of auxiliary materials; lesson plans; measuring results. (Miss K. Smith.)

ED. 122 s. *The Social Studies in the High School* (2). Prerequisite, Psych. 10 f.

Objectives and present trends in the social studies; texts and bibliographies; methods of procedure and types of lessons; the use of auxiliary materials; lesson plans; measuring results. (Clough.)

ED. 124 s. *Modern Language in the High School* (2). Prerequisite, Psych. 10 f.

Objectives of modern language teaching in the high school; selection and organization of subject matter in relation to modern practice and group needs; evaluation of texts and references; bibliographies; methods of procedure and types of lessons; lesson plans; special devices; measuring results.

ED. 126 s. *Science in the High School* (2). Prerequisite, Psych. 10 f.

Objectives of science teaching, their relation to the general objectives of secondary education; application of the principles of psychology and of teaching to the science class-room situation; selection and organization of subject matter; history, trends, and status; textbooks, reference works, and laboratory equipment; technic of class room and laboratory; measurement, standardized tests; professional organizations and literature. (Brechtbill.)

ED. 128 s. *Mathematics in the High School* (2). Prerequisite, Psych. 10 f.

Objectives; the place of mathematics in secondary education; content and construction of courses; recent trends; textbooks and equipment; methods of instruction; measurement and standardized tests; professional organizations and literature. (Brechtbill.)

*Ed. 130 f. *High School Course of Study—Composition* (2).

Content and organization of the materials of written and oral composition in the several high school grades. (Miss K. Smith.)

*Ed. 131 s. *High School Course of Study—Literature* (2).

Content and organization of the literature course in the several high school grades. (Miss K. Smith.)

Ed. 135 f. *High School Course of Study—Geometry* (2).

Content and organization of intuitive and demonstrative geometry. Methods of analysis and problem solving. (Brechtbill.)

Ed. 136 f. *High School Course of Study—Biology* (2).

Content and organization of biology. (Brechtbill.)

Ed. 137 s. *High School Course of Study—Physical Science* (2).

Content and organization of physics. Some consideration is given to content of chemistry. (Brechtbill.)

Ed. 138 f. *High School Course of Study—Social Studies* (2).

Content and organization of the materials of the social studies in the several high school grades.

Ed. 139 f or s. *Supervised Teaching of High School Subjects* (1-2). Prerequisites, Psych. 10 f, Ed. 5 s, Ed. 6 s, and the appropriate special methods.

Five periods of observation and participation followed by 20 periods of actual teaching for two semester hours of credit and by 10 periods of actual teaching for one semester hour of credit. Two semester hours are required. The teaching may all be done in one subject or may be done in two subjects.

Students desiring more than this amount must obtain special permission from the Dean of the College of Education, and may be required to pay the actual cost of such additional teaching.

Application for registration in this course must be made on the proper form before the beginning of the school year in which the teaching is to be done. Students taking this course should arrange their schedules in advance so as to avoid serious time conflicts with other courses. (Staff.)

E. English.

S. S. Social Studies.

L. Modern Language.

Sc. Science.

M. Mathematics.

P. E. Physical Education.

C. Commercial Subjects.

I. Industrial Education.

*Students whose major is English should choose one or both of these courses.

Ed. 141 f. *Physical Education in the High School* (Boys) (2). Prerequisites, Psych. 10 f, Ed. 5 s, Phys. Ed. 25s.

Objectives of physical education for high school boys; lesson planning; problem cases; methods of handling classes; physical and medical examinations; care of equipment; records; grading. (Mackert.)

Ed. 142 f. *Physical Education in the High School* (Girls) (3). Prerequisite, Psych. 10 f.

Objectives in physical education for girls in the different types of high schools; programs appropriate to high school girls; selection and organization of subject matter; lesson plans.

Ed. 143 y. *Methods and Practice in Recreation* (6).

A course required of senior men and women electing to prepare in the field of recreation and open to other seniors. Not given in 1938-1939.

Methods of handling meets, pageants, play days, circuses, tournaments, and the like. Practice in organizing, supervising, and directing activity projects of the playground, club, and community.

Ed. 146 s. *Teaching Health* (2).

A course required of senior men and women in physical education and recreation, meeting twice a week throughout the second semester.

This course surveys the materials and methods for teaching health.

Ed. 150 f; Ed. 151 s. *Commercial Subjects in the High School* (2-6). Prerequisite, Psych. 10 f.

Aims and methods for the teaching of shorthand, typewriting, and book-keeping in high schools.

HOME ECONOMICS EDUCATION

PROFESSOR MCNAUGHTON

H. E. Ed. 5 s. *Technic of Teaching* (2). Required of juniors in Home Economics Education. Prerequisite, Psych. 10 f.

Philosophy of home economics education; survey of the needs of the community; analysis of the characteristics and interests of the high school girl; objectives for teaching home economics in high school; construction of units; use of problem, discussion, demonstration, and laboratory methods; selection of illustrative material; the home project. (McNaughton.)

H. E. Ed. 6 s. *Observation of Teaching* (1). Twenty hours of directed observations.

Reports, conferences, and criticisms. (McNaughton.)

For Advanced Undergraduates and Graduates

H. E. Ed. 102 f. *Child Study* (4). Prerequisite, Psych. 10.

The study of child development in relation to the physical, mental, and emotional phases of growth; study of textbooks and magazines; adapta-

tion of material to teaching of child care in high school; observation and participation in University Nursery School. (McNaughton.)

H. E. ED. 103 f or s. *Teaching Secondary Vocational Home Economics: Methods and Practice* (4). Prerequisite, H. E. Ed. 5 s.

Observation and teaching in a vocational department of a Maryland high school or in a junior high school in Washington. Organization of units, lesson plans, field trips; planning and supervision of home projects. After completing the teaching unit the student observes in home economics departments other than one in which she has taught. (McNaughton.)

H. E. ED. 104 s. *Nursery School Techniques* (3). Prerequisite, Psych. 10 f. Open to seniors. Designed for Nursery School teachers.

Philosophy of preschool education; principles of learning; routines; study of children's interests and activities; observation and teaching in the nursery school. (McNaughton.)

H. E. ED. 105 f or s. *Special Problems in Child Study* (4). Open to seniors. Prerequisite, H. E. Ed. 102 f.

Methods and practice in nursery school work in University Nursery School; making of particular studies related to the mental, emotional, or physical development of preschool children. (McNaughton.)

H. E. ED. 106 s. *Problems in Teaching Home Economics* (1).

Analysis of the units in the State course of study; study of various methods for organization of class period; analysis of text books; evaluation of illustrative material. (McNaughton.)

For Graduates

H. E. ED. 201 f or s. *Advanced Methods of Teaching Home Economics* (2-4).

Study of social trends as applied to the teaching of home economics. (McNaughton.)

H. E. ED. 250 y. *Seminar in Home Economics Education* (2-4). (See Ed. 250 y.) (McNaughton.)

INDUSTRIAL EDUCATION

For each semester hour of credit for shop and drawing courses two or three periods of lecture and practice are scheduled depending upon the specific needs of the course.

IND. ED. 1 f. *Elements of Drawing and Design A* (2).

The principles and technic of elementary mechanical drawing and design, including sketching and blue-print reading. Emphasis is upon mechanical drawing as a graphic language and upon the application of design to high school shop projects.

IND. ED. 2 s. *Elements of Drawing and Design B* (2).
Continuation of Ind. Ed. 1 f.

IND. ED. 3 f. *Elementary Woodworking* (3).

This course deals with the use and care of woodworking tools and materials in bench practice involving the principles of joinery, including the application of woodworking finishes.

IND. ED. 4 s. *Advanced Woodworking* (3).

Practice in the application of design and construction of projects in wood involving the use of woodworking machinery suitable for the high school shop. It includes furniture construction and machine cabinet work, with some emphasis on manufacturing practices. Basic wood turning and a working knowledge of wood pattern making is taught, and practice given in coloring, finishing, and painting wood.

IND. ED. 5 f. *Sheet Metal Work* (2).

A general course covering effective ways of teaching the fundamental details of sheet metal work. Information is given on materials, tools, and processes. Practice is given in soldering, the laying out of patterns, and the making of a group of elementary graded problems which involve items of practical use.

IND. ED. 6 s. *Art Metal Work* (2).

This course follows the course in Sheet Metal. It deals with the design, construction, and methods of teaching art metal work. Projects include brass, copper, silversmithing, and jewelry work.

IND. ED. 7 y. *Mechanical Drawing* (2).

The basic theory and practices in the teaching of mechanical drawing involved in the projection of objects, the making of working drawings, pattern lay-outs, tracing and blue-printing, and the principles in machine design, including the study of conventions and the sketching of machine parts.

IND. ED. 8 y. *Electricity* (4).

The essentials of electricity in industrial and other life situations. Units of work are completed in house and signal wiring, power wiring, auto-ignition, and the fundamental principles involved in direct current machinery and alternating current machinery. It provides teachers of electricity with sufficient material and data to cope with the problem of electrical projects for high school class construction.

Note: Shop courses Ind. Ed. 9 f to 13 f inclusive will not be given until the year 1939-1940.

IND. ED. 9 f. *Elementary Machine Shop* (2).

This course includes bench work, tool grinding, and elementary practice on the lathe, shaper, and drill press. Effective teaching methods are emphasized.

IND. ED. 10 s. *Cold Metal Work* (2).

This course is concerned with the development of fundamental skills, teaching methods, and knowledge involved in the design and construction of projects from band iron and other cold metals.

IND. ED. 11 f. *Foundry* (2).

Laboratory practice and instructional methods in bench and floor moulding and elementary core making. Theory and principles covering foundry materials, tools, and appliances are presented, including consideration of mixtures for casting gray iron, brass, bronze, and aluminum.

IND. ED. 12 y. *Mechanical Drawing* (2).

Advanced practice and teaching methods based upon Mechanical Drawing courses of the freshman and sophomore years.

IND. ED. 13 f. *Advanced Machine Shop* (2).

Laboratory experiences in the fundamental operations on lathe, shaper, drill press, and other machine shop equipment. Special attention to effective methods of instruction in Machine Shop Practice.

*IND. ED. 162 s. *Industrial Education in the High School* (2). Prerequisite, Psych. 10 f. (Brown.)

Major functions and specific aims of industrial education; their relation to the general objectives of the junior and senior high schools; selection and organization of subject matter in terms of modern practices and needs; methods of instruction; expected outcomes; measuring results; professional standards.

*IND. ED. 164 s. *Shop Organization and Management* (2).

This course recapitulates methods of organization and management for teaching shop subjects. It includes organization and management of pupils; daily programs; projects; pupils' progress charts; selection, location, and care of tools, machines, equipment, and supplies; records and reports; and good school housekeeping. Opportunity is provided for visits to industrial plants as a basis for more practical planning of shop instruction and management. (Brown.)

*IND. ED. 165 f and 166 s. *Evolution of Modern Industry* (4).

The origin and development of our modern industrial system. A review of the industrial progress of man through the various stages of civilization down to modern factory organization and practice, as related to Industrial Education.

First semester (165 f) is a survey of industrial development up to and including the Industrial Revolution. The second semester (166 s) covers the period from the Industrial Revolution to the present time. (Brown.)

IND. ED. 163 f. *Occupations, Guidance, and Placement* (2).

Open to juniors and seniors.

Survey of the educational and vocational guidance movement; typical public school means and methods; use of occupational information; duties of the counselor; organization and cooperative relationships as affecting modern youth. (Brown.)

*Not given in 1938-1939.

PHYSICAL EDUCATION

A. Physical Education for Men

MR. MACKERT, MR. FOSTER, MR. HUTZEL, and MR. ALDERTON.

*PHYS. ED. 1 y. *Physical Activities I* (2).

An activities course for male freshmen, meeting three periods a week throughout the year. Activities taught are soccer, touch football, basketball, volley-ball, soft baseball, track, and natural gymnastics.

*PHYS. ED. 3 y. *Physical Activities II* (4).

An activities course for sophomore men, meeting three periods a week throughout the year. Activities taught are the team sports of the freshman year, and fencing, wrestling, tumbling, boxing, ping pong, horseshoe pitching, handball, tennis, and badminton.

PHYS. ED. 5 y. *Physical Education Practice I* (2).

An activities course required of sophomore men in physical education or recreation, meeting three periods a week throughout the year. Activities taught are marching, calisthenics, games, stunts, tumbling, and heavy apparatus.

PHYS. ED. 7 y. *Physical Education Practice II* (2).

An activities course required of junior men in physical education or recreation, meeting three periods a week throughout the year. Continuation of Phys. Ed. 5 y.

PHYS. ED. 9 y. *Physical Education Practice III* (2).

An activities course required of senior men in physical education or recreation, meeting three times a week throughout the year. A continuation of Phys. Ed. 5 y and Phys. Ed. 7 y. In addition, the senior student is given opportunities to teach underclassmen.

PHYS. ED. 11 y. *Personal and Community Hygiene* (4).

A course required of male freshmen in physical education or recreation, meeting twice a week throughout the year.

This course is designed to help the incoming student live at his best and realize the highest ideals of his group. Instruction in first aid to the injured is included in the second semester.

PHYS. ED. 13 y. *Coaching and Officiating: Men* (2).

A course required of junior men in physical education or recreation. Prerequisite, two years of successful intramural participation.

In this course students will gain actual experience in coaching and officiating in the activities of the intramural program. The class will meet once a week to consider problems of coaching and officiating.

*Students who are registered in the College of Education, or in Rural Life and Agricultural Education or Arts and Science Education curricula, and whose major or minor is Physical Education, may take both Basic Military and first and second year Physical Education courses for credit. In all other curricula credit will be allowed for either Basic Military or first and second year Physical Education, but not for both.

*PHYS. ED. 21 y. *Survey of Physical Education* (2).

A course required of sophomore men and women in physical education or recreation, meeting once a week throughout the year.

This course is an introduction to the study of physical education. It includes a survey of the possibilities of the profession.

*PHYS. ED. 25 s. *Physiology of Exercise* (2).

A course required of junior men and women in physical education or recreation, meeting twice a week during the second semester.

A study of the physiology involved in the performance of physical activities.

PHYS. ED. 27 y. *Practical Dancing* (2).

A course required of junior men in physical education or recreation.

A comprehensive course in dancing. Attention will be given to rhythmic patterns and to the development of fundamental dance steps used in folk, clog, and athletic dances. Dances especially adapted for use with adolescent boys are stressed.

*PHYS. ED. 31 f. *Theory and Function of Play* (2).

A course required of junior men and women in physical education or recreation, meeting twice a week during the first semester.

The psychology of action, the uses of play, organization of play activities, management of play space, games of low organization and individual activities will be studied in this course.

*PHYS. ED. 33 s. *Playground Management* (3).

A course required of junior men and women electing to prepare in the field of recreation, and open to other juniors and seniors.

This course is designed to study the many problems of playground administration. Observation of available playground situations with reports and criticisms will be done. Credit will be given for playground leadership.

PHYS. ED. 35 y. *Leadership in Recreational Activities* (4).

A course required of senior men in physical education or recreation.

Prerequisites—Phys. Ed. 13 y, and three years of successful intramural participation or the equivalent.

In this course the student studies the various aspects of character development and leadership, and gains practical experience in planning, supervising, and directing programs of activities.

*PHYS. ED. 37 f. *Boys and Girls Clubs* (3).

A course required of junior men and women electing to prepare in the field of recreation, and open to other juniors and seniors.

This course is designed to study the organization and administration of club work. Observations of available club activities with reports and criticisms will be done. Credit will be given for leadership in club work.

*Open to men and women.

*PHYS. ED. 39 f. *Community Recreation* (3).

A course required of senior men and women electing to prepare in the field of recreation, and open to other seniors.

This course is designed to study the planning and supervision of community recreational projects. Observation and preliminary participation with reports and criticisms will be done. Credit will be given for leadership in these projects. (Not given in 1938-1939.)

For Graduates

*PHYS. ED. 201 y. *Administration of Health and Physical Education* (6).

This course is designed to aid in solving the multitude of problems that arise in the administration of health and physical education in public schools. An attempt will be made to set up standards for evaluating the effectiveness of programs of health and physical education. (Mackert.)

For description of required courses in Education see page 256 and following.

B. Physical Education for Women

MISS STAMP, MISS MIDDLETON, MRS. FRASER, DR. KARPELES,
MRS. STOUTEMYER.

PHYS. ED. 2 y. *Personal Hygiene* (1).

Freshman course required of all women.

This course consists of instruction in hygiene one period a week throughout the year. The health ideal and its attainments, care of the body relative to diet, exercise, sleep, bathing, etc., and social hygiene.

PHYS. ED. 4 y. *Physical Activities* (1).

Freshman course required of all women.

This is an activities course, which meets two periods a week throughout the year. It will present the following phases of physical education: sports, such as hockey, soccer, basketball, speedball, archery, and volleyball; natural activities, such as tumbling and stunts; and dancing, such as clog, folk, and athletic.

PHYS. ED. 6 y. *Community Hygiene* (2).

Sophomore course required of all women.

Continuation of the freshman course. The work in hygiene includes the elements of physiology, the elements of home, school, and community hygiene, and a continuation of social hygiene.

PHYS. ED. 8 y. *Physical Activities* (2).

Sophomore course required of all women.

Continuation of the work of the freshman year. In addition to the regular work, the student is permitted to elect clog, folk, or natural dancing.

*Open to men and women.

PHYS. ED. 10 y. *Fundamentals of Rhythm and Dance* (2).

One lecture a week.

Required of all freshmen with a major in physical education. Two periods a week of theory and practical demonstration. Fundamentals of movement and rhythm basic to all dance.

An understanding of the creative process, and the application of basic principles of composition to the dance. Special consideration is given to dance as an educational, social force, and as an art.

*PHYS. ED. 12 f. *Games* (1).

Required of all sophomore women whose major is physical education, and open to other undergraduates.

This course aims to present games and stunts suitable for the elementary school and recreational groups. Theory and practice.

PHYS. ED. 16 s. *First Aid* (1).

Required of all junior women whose major is physical education.

It presents the fundamentals necessary for offering aid in accidents and injuries until medical attention can be secured. Practical work will be required of all students.

PHYS. ED. 18 y. *Athletics I* (2).

Required of all freshmen women whose major is physical education. Two periods of practical work.

In the first semester, the work consists of hockey, soccer, fieldball, volleyball, and basketball.

In the second semester the work consists of individual sports, such as golf, archery, tennis, and swimming.

PHYS. ED. 20 s. *Natural Gymnastics* (1).

Required of sophomore women with a major in physical education.

This course presents stunts, games, and self-testing activities based upon fundamental movements which are inherent in the race. Teaching technics will be considered, and material offered which is suitable to varying age groups.

PHYS. ED. 22 y. *Athletics II* (2).

Required of sophomore women with a major in physical education. Prerequisite, Phys. Ed. 18 y.

Two periods of practical work.

Advanced training in major sports.

PHYS. ED. 24 f. *Body Mechanics* (2).

Required of all juniors with a major in physical education recreation. Two lecture periods a week.

*Open to men and women.

A study of the principles underlying the action of the muscles, bones, and joints involved in physical exercise.

The question of correct posture and divergences from the normal. Prescription of exercise from a development and corrective standpoint.

Physical examinations.

*PHYS. ED. 28 f. *Clogs and Athletic Dances* (1).

Required of junior women with a major in physical education. Two practical periods a week.

This course includes suitable teaching material for both high school boys and girls, and is designed to meet the need of students entering recreational work.

*PHYS. ED. 30 s. *Folk Dancing* (1).

Required of junior women with a major in physical education. Two practical periods a week.

This course includes representative dances of various countries, and dances representing various grades of difficulty.

*PHYS. ED. 32 y. *Modern Dance* (2).

Required of sophomore women with a major in physical education. Two practical periods a week. Prerequisite, Phys. Ed. 10 y, or equivalent.

A brief review of the basic materials of movement and rhythm given in Phys. Ed. 10 y, to be used in dance composition which will be carried on in groups in the regular class hour. Particular attention will be given to such problems as rhythm and accompaniment, movement the medium of the dance, design and other related arts in the production of a significant and educational program of dance.

PHYS. ED. 34 y. *Coaching and Officiating: Women* (2).

Required of senior women with a major in physical education. It trains the student to coach and officiate in women's athletics. Opportunity is given for the student to apply practically the theory and methods which she has learned in this class.

For descriptions of required courses in Education see page 256 and following.

*Open to men and women.

ENGINEERING

PROFESSORS STEINBERG, CREESE, NESBIT, HUFF; LECTURERS DILL, HALL, KEAR; ASSOCIATE PROFESSORS HODGINS, HUCKERT; ASSISTANT PROFESSORS HOSHALL, PYLE, ALLEN, WIKSTROM, MACHWART, ERNST; DR. INGALLS, MR. LINDAHL, MR. LOWE.

Chemical Engineering

For Advanced Undergraduates and Graduates

CH. E. 101 f. *Heat Transfer and Fluid Flow* (3)—Two lectures; one laboratory. This course is required of juniors in mechanical engineering.

A theoretical discussion of heat transfer and fluid flow, with illustrative problems and related laboratory work.

CH. E. 102 s. *Water, Fuels, and Lubricants* (3 or 4)—Two lectures; one or two laboratories. Prerequisites, Chem. 8 A y and 8 B y; Phys. 2 y.

The three-credit hour course is designed for juniors in mechanical engineering, who may take the course without the prerequisite Chem. 8 A y and Chem. 8 B y.

Laboratory work consists of exercises in the usual control methods for testing water, fuels, and lubricants, and some related engineering materials.

CH. E. 103 y. *Elements of Chemical Engineering* (6)—Three lectures. Prerequisites, Chem. 8 A y and 8 B y; Phys. 2 y.

Theoretical discussion of general underlying philosophy and methods in chemical engineering, such as presentation of data, material balances, and heat balances. Illustrated by consideration of typical problems and processes.

CH. E. 104 y. *Chemical Engineering Seminar* (2). Required of all students in chemical engineering.

Students prepare reports on current problems in chemical engineering and participate in the discussion of such reports.

CH. E. 105 y. *Advanced Unit Operations* (10)—Two lectures; three laboratories. Prerequisite, Ch. E. 103 y.

Advanced theoretical treatment of fluid flow, heat flow, evaporation, humidity, distillation, absorption, scrubbing, and analogous unit operations typical of chemical engineering. Problems and laboratory operation of small scale semi-commercial type equipment.

CH. E. 106 s. *Minor Problems* (7). Prerequisites, completion of third year chemical engineering course or permission of department of chemical engineering.

Original work on a special problem assigned to each student, including preparation of a complete report covering the study.

CH. E. 107 f. *Fuels and their Utilization* (5)—Three lectures; two laboratories. Prerequisite, completion of third year chemical engineering course or permission of department of chemical engineering.

A study of the sources of solid, liquid, and gaseous fuels, their economic conversion, distribution, and utilization. Problems: laboratory preparation, control, and utilization.

CH. E. 108 y. *Chemical Technology* (4)—Two lectures. Prerequisite, Ch. E. 103 y. Also open to advanced students in chemistry.

A study of the principal chemical industries. Plant inspections, trips, reports, and problems.

For Graduates

CH. E. 201 y. *Graduate Unit Operations* (10 or more). Prerequisite, permission of department of chemical engineering.

Advanced theoretical treatment of typical unit operations in chemical engineering. Problems. Laboratory operation of small scale semi-commercial type equipment with supplementary reading, conferences, and reports.

CH. E. 202 s. *Gas Analysis* (3)—One lecture; two laboratories. Prerequisite, permission of department of chemical engineering.

Quantitative determination of common gases, fuel gases, gaseous vapors, and important gaseous impurities. Problems.

Seminar and Research

CH. E. 203 f and 204 s. *Graduate Seminar* (2). Required of all graduate students in chemical engineering.

Students prepare reports on current problems in chemical engineering, and participate in the discussion of such reports.

CH. E. 205 f or 206 s. *Research in Chemical Engineering*.

The investigation of special problems and the preparation of a thesis in partial fulfillment of the requirements of an advanced degree.

Civil Engineering

C. E. 101 s. *Hydraulics* (4)—Three lectures; one laboratory. Prerequisite, Mech. 101 f. Required of juniors in civil engineering.

Hydrostatic pressures on tanks, dams, and pipes. Flow through orifices, nozzles, pipe lines, open channels, and weirs. Use of Reynold's number. Measurement of water. Elementary hydrodynamics. (Ernst.)

C. E. 102 s. *Hydraulics* (3)—Two lectures; one laboratory. Prerequisite, Mech. 102 f. Required of juniors in electrical and mechanical engineering.

A shorter course than C. E. 101 s, with emphasis on water wheels, turbines, and centrifugal pumps. (Ernst.)

C. E. 103 f. *Curves and Earthwork* (3)—Two lectures; one laboratory. Prerequisite, Surv. 2 y. Required of juniors in civil engineering.

Computation and field work for simple, compound, and reversed circular curves; easement curves; vertical and horizontal parabolic curves. Analysis of turnouts and computation of earthwork, including haul and mass diagram. (Allen.)

C. E. 104 s. *Theory of Structures* (5)—Four lectures; one laboratory. Taken concurrently with Mech. 101 f. Required of juniors in civil engineering.

Analytical and graphical determination of dead and live load stresses in framed structures. Influence lines for reactions, shears, moments, and stresses. Analysis of lateral bracing systems. Elements of slope and deflection; rigid frames. The design of steel, timber, and reinforced concrete members. (Allen.)

C. E. 105 f. *Elements of Highways* (3)—Two lectures; one laboratory. Prerequisite, Mech. 101 f. Required of seniors in civil engineering.

Location, construction, and maintenance of roads and pavements. Highway contracts and specifications, estimates of cost, highway economics. The course includes, in addition to lecture and classroom work, field inspection trips. (Steinberg.)

C. E. 106 y. *Concrete Design* (7)—Three lectures, one laboratory first semester; two lectures, one laboratory second semester. Prerequisite, C. E. 104 s. Required of seniors in civil engineering.

A continuation of C. E. 104 s, with special application to the design and detailing of plain and reinforced concrete structures, which include slabs, columns, footings, beam bridges, arches, retaining walls, and dams. Applications of slope-deflection and moment distribution theories and rigid frames. (Allen.)

C. E. 107 y. *Structural Design* (7)—Three lectures, one laboratory first semester; two lectures, one laboratory second semester. Prerequisite, C. E. 104 s. Required of seniors in civil engineering.

A continuation of C. E. 104 s, with special application to the design and detailing of structural steel sections, members and their connections, for roof trusses, plate girders, highway and railway bridges, buildings, bracing systems, and grillage foundations. (Allen.)

C. E. 108 y. *Municipal Sanitation* (6)—Two lectures; one laboratory. Prerequisite, C. E. 101 s. Required of seniors in civil engineering.

Methods of estimating consumption and designing water supply and sewerage systems. (Hall.)

C. E. 109 y. *Thesis* (3)—One laboratory first semester; one lecture, one laboratory second semester. Required of seniors in civil engineering.

The student selects, with faculty approval, a subject in civil engineering design or research. He makes such field or laboratory studies as may be

needed. Weekly progress reports are required, and frequent conferences are held with the member of the faculty to whom the student is assigned for advice. A written report, including an annotated bibliography, is required to complete the thesis. (Steinberg and Staff.)

C. E. 110 s. *Soils and Foundations* (3)—Two lectures; one laboratory. Prerequisite, C. E. 104 s. Required of seniors in civil engineering.

A study of the properties and behavior of soil as an engineering material. Applications to the methods of constructing foundations for highways, bridges, buildings, and other structures. (Steinberg, Lowe.)

Drawing

DR. 1 A f. *Engineering Drawing* (2)—Two laboratories. Required of freshmen in engineering.

Lettering, use of instruments, orthographic projection, technical sketches, dimensioning. Drawing from memory; drawing from description; inking, tracing, blueprinting, isometric and oblique projection and sections.

Course A is intended for students who have not had mechanical drawing.

DR. 1 B f. *Engineering Drawing* (2)—Two laboratories.

Advanced engineering drawing, with applications to engineering practice.

Course B is intended for students who have passed an approved high school course in mechanical drawing.

DR. 2 s or DR. 4 f. *Descriptive Geometry* (2)—One lecture; one laboratory. Prerequisite, Dr. 1 A f or Dr. 1 B f. Required of freshmen in engineering.

Orthographic projection as applied to the solution of space problems relating to the point, line, and plane. Intersection of planes with solids; development. Applications to practical problems in engineering drafting.

DR. 3 f or DR. 5 s. *Descriptive Geometry* (2)—One lecture; one laboratory. Prerequisite, Dr. 2 s or Dr. 4 f. Required of sophomores in civil, electrical, and mechanical engineering.

Continuation of Dr. 2 s, including curves, plane and space, generation of surfaces, tangent planes, intersection and development of curved surfaces. Shades, shadows, and perspective. Applications to practical problems in engineering drafting.

DR. 6 y. *Mechanical Drawing* (2)—One laboratory. Open to non-engineering students.

Lettering, sketching, and working drawings of machines; including conventions, tracing, isometric and cabinet projections, and blueprinting.

Electrical Engineering

E. E. 1 s. *Elements of Electrical Engineering* (3)—Two lectures; one laboratory. Taken concurrently with Math. 23 y and Phys. 2 y. Required of sophomores in electrical engineering.

Principles involved in flow of direct currents in conductors; current and voltage relations in simple circuits; magnetism and magnetic circuits; electromagnetic induction, dielectric circuits and condensers.

E. E. 101 s. *Principles of Electrical Engineering* (3)—Two lectures; one laboratory. Prerequisites, Phys. 2 y, Math. 23 y. Required of juniors in civil engineering.

Fundamentals of direct current and alternating current machinery; application of machines for specific duties; operating characteristics of generators, motors, and transformers. (Hodgins.)

E. E. 102 y. *Principles of Electrical Engineering* (8)—Three lectures; one laboratory. Required of seniors in mechanical engineering. Prerequisite, senior standing.

Study of elementary direct current and alternating current characteristics. Principles of construction and operation of direct and alternating current machinery. Experiments on the operation and characteristics of generators, motors, transformers, and control equipment. (Wikstrom.)

E. E. 103 f. *Direct Currents* (5)—Four lectures; two laboratories. Prerequisites, Phys. 2 y, Math. 23 y, and E. E. 1 s. Required of juniors in electrical engineering.

Construction, theory of operation and performance characteristics of direct current generators, motors, and control apparatus. Principles of construction, characteristics and operation of primary and secondary batteries and control equipment. Experiments on battery characteristics, and the operation and characteristics of direct current generators and motors. (Hodgins.)

E. E. 104 s. *Direct Current Design* (1)—One laboratory. Prerequisite, E. E. 103 f. Required of juniors in electrical engineering.

Materials of construction and design of the electric and magnetic circuits of direct current generators and motors. (Wikstrom.)

E. E. 105 f. *Electrical Measurements* (4)—Three lectures; one laboratory. Prerequisites, Phys. 2 y, Math. 23 y, and E. E. 1 s. Required of juniors in electrical engineering.

Theory and application of precision instruments and methods used in direct current measurements of electric and magnetic quantities. (Wikstrom.)

E. E. 106 s. *Alternating Current Circuits* (5)—Three lectures; two laboratories. Prerequisites, E. E. 103 f and E. E. 105 f. Required of juniors in electrical engineering.

Introduction to the theory of alternating current circuits, both single phase and polyphase; methods and apparatus used to measure alternating

currents, voltage, and power; current and voltage relations in balanced and unbalanced polyphase systems. (Hodgins.)

E. E. 107 y. *Alternating Current Machinery* (8)—Three lectures; one laboratory. Prerequisite, E. E. 106 s. Required of seniors in electrical engineering.

Construction, theory of operation and performance characteristics of transformers, alternators, induction motors, synchronous motors, synchronous converters, commutator type motors, and other apparatus; tests and experiments. (Creese.)

E. E. 108 f. *Alternating Current Design* (1)—One laboratory. Prerequisites, E. E. 105 f, E. E. 106 s. Taken concurrently with E. E. 107 y. Required of seniors in electrical engineering.

Materials of construction and design of the electric and magnetic circuits of alternating current generators, motors, and transformers. (Hodgins.)

E. E. 109 y. *Electrical Communications* (6)—Two lectures; one laboratory. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y.

Principles of wire and radio communication. Theory and calculation of passive networks including transmission lines and coupled circuits. Theory and calculation of non-linear impedances including the vacuum tube. Introduction to electromagnetic wave propagation. (Kear.)

E. E. 110 f. *Illumination* (3)—Two lectures; one laboratory. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y. Required of seniors in electrical engineering.

Electric illumination; principles involved in design of lighting systems, illumination calculations, photometric measurements. (Creese.)

E. E. 111 f. *Electric Railways* (3)—Three lectures. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y.

Mechanism of train motion. Construction of speed-time and power-time curves, and their use in the application of electrical equipment to transportation. Construction, operation, and control of apparatus used in different fields of electrical transportation, such as urban railways, trunk line railways, and busses. Power requirements, distribution systems, and signal systems. (Hodgins.)

E. E. 112 s. *Electric Power Transmission* (3)—Three lectures. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y.

Survey of central station and substation equipment. Calculation of line constants. Mechanical and economical considerations of transmission of power. Fundamentals of transients. (Wikstrom.)

E. E. 113 y. *Thesis* (3)—One laboratory first semester; one lecture, one laboratory second semester. Required of seniors in electrical engineering.

The student selects, with faculty approval, a subject in electrical engineering design or research. He makes such field or laboratory studies as may

be needed. Weekly progress reports are required, and frequent conferences are held with the member of the faculty to whom the student is assigned for advice. A written report, including an annotated bibliography, is required to complete the thesis. (Creese and Staff.)

General Engineering Subjects

ENGR. 1 f. *Introduction to Engineering* (1)—One lecture. Required of freshmen in engineering.

A course of lectures by the faculty and by practicing engineers covering the engineering professional fields. The work of the engineer, its requirements in training and character, and the ethics and ideals of the profession. The purpose of this course is to assist the freshman in selecting the particular field of engineering for which he is best adapted.

ENGR. 101 f. *Engineering Geology* (2)—Two lectures. Required of juniors in civil engineering.

The fundamentals of geology with engineering applications. (Hess.)

ENGR. 102 s. *Engineering Law and Specifications* (2)—Two lectures. Required of seniors in civil, electrical, and mechanical engineering.

A study is made of the fundamental principles of law relating to business and to engineering; including contracts, agency, negotiable instruments, corporations, and common carriers. These principles are then applied to the analysis of general and technical clauses in engineering contracts and specifications. (Steinberg.)

Mechanics

MECH. 1 s. *Statics and Dynamics* (3)—Three lectures. Taken concurrently with Math. 23 y and Phys. 2 y. Required of sophomores in civil, electrical, and mechanical engineering.

Analytical and graphical solutions of coplanar and non-coplanar force systems; equilibrium of rigid bodies; suspended cables, friction, centroids and moments of inertia; kinematics and kinetics; work, power, and energy; impulse and momentum.

MECH. 101 f. *Strength of Materials* (5)—Four lectures; one laboratory. Prerequisite, Mech. 1 s. Required of juniors in civil engineering.

Riveted joints; torsional stresses and strains; beam stresses and deflection; combined axial and bending loads; column stresses; principal stresses and strains; impact and energy loads; statically indeterminate beams; shear center; unsymmetrical bending; composite members including reinforced concrete beams. Instruction in the use of an approved handbook containing the properties of rolled steel sections. (Ernst.)

MECH. 102 f. *Strength of Materials* (4)—Three lectures; one laboratory. Prerequisite, Mech. 1 s. Required of juniors in electrical and mechanical engineering.

A shorter course than Mech. 101 f. Instruction in the use of an approved handbook containing the properties of rolled steel sections. (Ernst.)

MECH. 103 s. *Materials of Engineering* (2)—One lecture; one laboratory. Prerequisite, Mech. 101 f or Mech. 102 f. Required of juniors in civil, electrical, and mechanical engineering.

The composition, manufacture, and properties of the principal materials used in engineering, and of the conditions that influence their physical characteristics. The interpretation of specifications and of standard tests. Laboratory work in the testing of steel, wrought iron, timber, brick, cement, and concrete. (Pyle.)

Mechanical Engineering

M. E. 1 s. *Kinematics* (2)—One lecture; one laboratory. Taken concurrently with Math. 23 y and Phys. 2 y. Required of sophomores in mechanical engineering.

A course embracing the fundamentals of kinematics necessary to the study of kinematics of machinery. Plane motion of a particle and the general laws governing the transmission of plane motion are treated by vector and graphical methods.

M. E. 101 f. *Kinematics of Machinery* (3)—Two lectures; one laboratory. Prerequisite, M. E. 1 s. Required of juniors in mechanical engineering.

A course applying kinematics to the study of the motions transmitted by cams, gears, belts, chains, links, etc. (Huckert.)

M. E. 102 f. *Machine Design* (3)—Two lectures; one laboratory. Prerequisite, Math. 23 y, Phys. 2 y. Required of juniors in mechanical engineering.

The application of mechanics to the determination of stresses and the proportioning of machine parts. (Hoshall.)

M. E. 103 s. *Thermodynamics* (3)—Three lectures. Prerequisites, Math. 23 y, Phys. 2 y. Required of juniors in electrical engineering.

The theory and application of thermodynamics to the steam engine, steam turbine, nozzles. The properties of vapors, cycles of heat and entropy, including discussion of machines and their uses. (Lindahl.)

M. E. 104 s. *Thermodynamics* (5)—Four lectures; one laboratory. Prerequisites, Math. 23 y, and Phys. 2 y. Required of juniors in mechanical engineering.

The properties and fundamental equations of gases and vapors. Thermodynamics of heat cycles, air compressors, and steam engines. (Huckert.)

M. E. 105 f. *Internal Combustion Engines* (3)—Three lectures. Prerequisite, M. E. 104 s. Required of seniors in mechanical engineering.

Theory, construction, and operation of gasoline and oil engines. Design and operation of Otto and Diesel cycle engines. (Nesbit.)

M. E. 106 f. *Heating and Ventilation* (3)—Two lectures; one laboratory. Prerequisite, M. E. 104 s. Required of seniors in mechanical engineering.

The study of types of heating and ventilating systems for a particular building; layout of piping and systems, with complete calculations and estimates of costs; fundamentals of air conditioning. (Dill.)

M. E. 107 s. *Refrigeration* (3)—Two lectures; one laboratory. Prerequisite, M. E. 104 s. Required of seniors in mechanical engineering.

Problems involving the different methods and processes of refrigeration. Air conditioning for offices, buildings, factories and homes. (Dill.)

M. E. 108 y. *Design of Prime Movers* (6)—Two lectures; one laboratory. Prerequisites, Mech. 102 f, C. E. 102 s. Required of seniors in mechanical engineering.

The design and proportioning of parts of essential prime movers for power plants, and industrial uses. (Nesbit.)

M. E. 109 s. *Design of Power Plants* (2)—Two lectures. Taken concurrently with M. E. 108 y. Required of seniors in mechanical engineering.

The design of power plants, including the layout and cost of building, installation of equipment, and determination of size for most economical operation. (Nesbit.)

M. E. 110 y. *Mechanical Laboratory* (2)—One laboratory. Required of seniors in mechanical engineering.

Calibration of instruments, gauges, indicators, steam, gas and water meters. Indicated and brake horsepower of steam and internal combustion engines, setting of valves, tests for economy and capacity of boilers, engines, turbines, pumps, and other prime movers. Feed water heaters and condensers; B. T. U. analysis of solid, gaseous, and liquid fuels, and power plant tests. (Nesbit, Lindahl.)

M. E. 111 y. *Thesis* (3)—One laboratory first semester; one lecture, one laboratory second semester. Required of seniors in mechanical engineering.

The student selects, with faculty approval, a subject in mechanical engineering design or research. He makes such field or laboratory studies as may be needed. Weekly progress reports are required, and frequent conferences are held with the member of the faculty to whom the student is assigned for advice. A written report, including an annotated bibliography, is required to complete the thesis. (Nesbit and Staff.)

M. E. 112 f. *Principles of Mechanical Engineering* (3)—Two lectures; one laboratory. Required of juniors in civil engineering. Prerequisites, Math. 23 y, and Phys. 2 y.

Elementary thermodynamics and the study of heat, fuel, and combustion in the production and use of steam for the generation of power. Includes

study of fundamental types of steam boilers, fuel burning equipment, prime movers, and their allied apparatus. Supplemented by laboratory tests and trips to industrial plants. (Huckert.)

M. E. 113 s. *Power Plants* (3)—Two lectures; one laboratory. Required of seniors in electrical engineering. Prerequisite, senior standing.

A study of heat, fuel, and combustion in the production and use of steam for the generation of power. Includes the theory and operation of steam engines, boilers, condensers, steam turbines, and their accessories. Practical power problems as applied to typical power plants, supplemented by laboratory tests and trips to industrial plants. (Huckert.)

Shop

SHOP 1 s. *Forge Practice* (1)—One combination lecture and laboratory. Required of freshmen in engineering.

Lectures and recitations on the principles of forging and heat treatment of steel. Demonstrations in acetylene and electric welding, brazing, cutting, and case hardening. Laboratory practice in drawing, bending, upsetting, forge welding, hardening, tempering, and thread cutting.

SHOP 2 f. *Machine Shop Practice* (1)—One laboratory. Required of sophomores in electrical engineering.

Practice in bench work, turning, planing, drilling, and pipe threading.

SHOP 3 f. *Machine Shop Practice* (2)—One lecture; one laboratory. Required of sophomores in mechanical engineering.

Study of the fundamental principles of machine tools, such as lathe, planer, shaper, milling machine, drilling machine, and grinding machines. Calculation for cutting threads, spur and helical gears, fluting and cutting speeds and coolants. The laboratory work in this course is identical with Shop 2 f. Practice in bench work, turning, planing, drilling, and pipe threading.

SHOP 4 f. *Machine Shop Theory* (1)—One lecture. Open to non-engineering students.

This course consists of the lecture work only of Shop 3 f, and is scheduled concurrently with Shop 3 f.

SHOP 5 s. *Machine Shop Practice* (2)—Two laboratories. Open to non-engineering students.

Practice in bench work, turning, planing, drilling, pipe threading, thread cutting, surface grinding, and fluting and cutting spur and helical gears.

SHOP 6 y. *Wood Shop* (2)—One laboratory. Open to non-engineering students.

Use and care of wood-working tools and exercises in sawing, planing, turning, finishing, and laying out work from blueprints. (A charge will be made for materials actually used, approximately \$2.00 a semester.)

SHOP 101 f. *Machine Shop Practice* (1)—One laboratory. Required of juniors in mechanical engineering.

Advanced practice with standard machine tools. Exercises in thread cutting, surface grinding, fluting, cutting spur and helical gears, and jig work. (Hoshall.)

SHOP 102 s. *Foundry Practice* (1)—One combination lecture and laboratory. Required of juniors in mechanical engineering.

Lectures and recitations on foundry products and layout, materials and equipment, hand and machine moulding, cupola practice and calculating mixes. Core making, moulding, casting in aluminum, brass, and gray iron. (Hoshall.)

Surveying

SURV. 1 f and s. *Elements of Plane Surveying* (1)—Combined lecture and laboratory work. Prerequisites, Math. 21 f, and 22 s. Required of sophomores in chemical, electrical, and mechanical engineering.

A brief course in the use of the tape, compass, level, transit, and stadia. Computations for area, coordinates, volume, and plotting.

SURV. 2 y. *Plane Surveying* (5)—One lecture; one laboratory first semester; one lecture, two laboratories second semester. Prerequisites, Math. 21 f and 22 s. Required of sophomores in civil engineering.

Theory of and practice in the use of the tape, compass, transit, and level. General survey methods, traversing, area, coordinates, profiles, cross-sections, volume, stadia.

SURV. 101 f. *Advanced Surveying* (4)—Two lectures; two laboratories. Prerequisite, Surv. 2 y. Required of juniors in civil engineering.

Adjustment of instruments, latitude, longitude, azimuth, time, triangulation, precise leveling, geodetic surveying, together with the necessary adjustments and computations. Topographic surveys. Plane table, land surveys, and boundaries. Mine, tunnel, and hydrographic surveys. (Pyle.)

ENGLISH LANGUAGE AND LITERATURE

PROFESSORS HALE, HOUSE, WARFEL; ASSOCIATE PROFESSOR HARMAN; ASSISTANT PROFESSORS FITZHUGH, LEMON, ZEEVELD; MR. BALL, MR. BRYAN, DR. CONWELL, MISS IDE, MR. GRAVELY, MISS MILLER, MR. MURPHY, MR. SIXBEY.

ENG. 1 y. *Survey and Composition I* (6)—Three lectures. Freshman year. Prerequisite, three units of high school English and successful passing of the qualifying examination given by the Department, or successful completion of English A. Required of all four-year students.

A study of style, syntax, spelling, and punctuation, combined with an historical study of the literature of the nineteenth and twentieth centuries.

Written themes, book reviews, and exercises. Each semester of this course will be repeated in the following semester.

ENG. A f. *Special Preparatory Course* (0)—Three lectures. Freshman year. Prerequisite, three units of high school English. Required of all students who fail to pass the qualifying examination. Students who show sufficient progress after five weeks of English A will be transferred to English 1 y. Others will continue with English A for one semester. The department reserves the right to transfer students who make unsatisfactory progress from English 1 y to English A f.

A course in grammatical and rhetorical principles designed to help students whose preparation has been insufficient for English 1 y. Exercises, conferences, precis writing. This course will be repeated in the second semester.

ENG. 2 f. *Survey and Composition II* (3)—One general lecture given by various members of the department; two quiz sections. Sophomore year. Prerequisite, Eng. 1 y. Required of all students in the College of Arts and Sciences.

A continuation of work in composition based on the work accomplished in Eng. 1 y. An historical study of English Literature from the beginnings to the nineteenth century. Themes, book reports, conferences.

ENG. 3 s. *Survey and Composition II* (3)—One lecture; two quiz sections. Prerequisites, Eng. 1 y and Eng. 2 f. Continuation of Eng. 2 f.

ENG. 4 f or s. *Business English* (2)—Two lectures. Prerequisite, Eng. 1 y. Course complete in one semester, but may be taken in either semester.

This course develops the best methods of writing effective business letters.

ENG. 5 f. *Expository Writing* (2)—Two lectures. Prerequisite, Eng. 1 y. Study of the principles of exposition. Analysis and interpretation of material bearing upon scientific matter. Themes, papers, and reports.

ENG. 6 s. *Expository Writing* (2)—Two lectures. Prerequisite, Eng. 5 f. Continuation of Eng. 5 f.

ENG. 7 f. *Survey of American Literature* (3)—Three lectures. Prerequisite, Eng. 1 y.

American thought and expression from 1607 to 1865, with emphasis upon colonial cultural patterns, upon the rise of nationalism, and upon sectional conflict. Reports and term paper.

ENG. 8 s. *Survey of American Literature* (3)—Three lectures. Prerequisite, Eng. 1 y.

Continuation of Eng. 7 f, with emphasis upon the changing social forces which influenced American writers after 1865. Reports and term paper.

ENG. 11 f. *Shakespeare* (3)—Three lectures. Prerequisite, Eng. 1 y. Ten significant plays, illustrating the drama as a distinct form of art. Dramatic criticisms; preparation of acting script.

ENG. 12 s. *Shakespeare* (3)—Three lectures. Prerequisite, Eng. 1 y and Eng. 11 f.

ENG. 13 s. *Introduction to Narrative Literature* (2)—Two lectures. Prerequisite, Eng. 1 y. Not open to freshmen.

An intensive study of representative stories, with lectures on the history and technique of the short story and of other narrative forms.

ENG. 14 f. *College Grammar* (3)—Three lectures. Prerequisite, Eng. 1 y. Required of students preparing to teach English.

Studies in the descriptive grammar of modern English.

For Advanced Undergraduates and Graduates

In addition to the twelve hours of basic freshman and sophomore English, a student taking his major work in English must pass College Grammar and either History of the English Language or one semester of Anglo-Saxon, one semester of Shakespeare, Advanced Composition, and Survey of American Literature.

The Department strongly recommends, but does not require, that major students take a course in English History and a course in Comparative Literature. At least an elementary knowledge of French, German, and Latin is highly desirable, especially for students who intend to do graduate work.

ENG. 100 f and s. *Advanced Writing* (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s. Course complete in one semester, but may be taken a second semester for credit. Required of all students whose major is English. Open to others by permission of instructor.

Theory and practice in the larger forms, the types to be varied each semester at the election of the class. (House, Bryan.)

ENG. 101 s. *History of the English Language* (3)—Three lectures. Prerequisite, Eng. 14 f.

An historical survey of the English Language: its nature, origin, and development, with special stress upon structural and phonetic changes in English speech and upon the rules which govern modern usage. (Harman.)

ENG. 102 f. *Anglo-Saxon* (3)—Three lectures. Prerequisite, Eng. 14 f.

A study of Anglo-Saxon (Old English) grammar and literature. Lectures on the principles of phonetics and comparative philology. (House.)

ENG. 103 s. *Beowulf* (3)—Three lectures. Prerequisite, Eng. 102 f.

A study of the Old English epic in the original. Stress on philology, syntax, versification. (House.)

ENG. 104 f. *Chaucer* (3)—Three lectures. Prerequisite, Eng. 1 y and Eng. 2 f and 3 s.

A study of the *Canterbury Tales*, *Troilus and Criseyde*, and the principal minor poems, with lectures and readings on the social background of Chaucer's time. (Not given in 1938-1939.) (Hale.)

ENG. 105 f. *Medieval Drama in England* (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the development of medieval English drama from its beginning to 1540. Class discussion of significant plays, outside reading, reports. (Not given in 1938-1939.) (Fitzhugh.)

ENG. 106 s. *Elizabethan Drama* (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the change in spirit and form of English drama from 1540 to 1640, as seen in the works of the important dramatists other than Shakespeare. Class discussion of significant plays, outside reading, written dramatic criticisms. (Not given in 1938-1939.) (Zeeveld.)

ENG. 107 s. *Non-Dramatic Literature of the English Renaissance* (3)—Three lectures. Prerequisites, Eng. 2 f and 3 s.

A study of the literary manifestations of humanism and the new national spirit in sixteenth-century England, with emphasis on the prose works of More, Lyly, Sidney, Hooker, Bacon, and the translators of the Bible, and on the poetry of Spenser. (Zeeveld.)

ENG. 108 f. *Milton* (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the poetry and the chief prose works. (Murphy.)

ENG. 109 f. *Literature of the Seventeenth Century to 1660* (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the chief prose writers and of the Metaphysical and Cavalier traditions in poetry. (Not given in 1938-1939.) (Murphy.)

ENG. 110 s. *The Age of Dryden* (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

This course emphasizes the relation of literature to the philosophical movements of the age. (Not given in 1938-1939.) (Murphy.)

ENG. 111 f. *Literature of the Eighteenth Century* (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

Readings in the period dominated by Defoe, Swift, Addison, Steele, and Pope. (Fitzhugh.)

ENG. 112 s. *Literature of the Eighteenth Century* (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A continuation of Eng. 111 f. Dr. Johnson and his Circle; the Rise of Romanticism; the Letter Writers. (Fitzhugh.)

ENG. 113 f. *Prose and Poetry of the Romantic Age* (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the development of the Romantic movement in England as exemplified by the prose and poetry of Wordsworth, Coleridge, Lamb, De Quincey, Landor, and others.

ENG. 114 s. *Prose and Poetry of the Romantic Age* (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the later Romantic writers, including Byron, Shelley, Keats, Moore, Scott, and others. (Hale.)

ENG. 115 f. *Scottish Poetry* (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s. No knowledge of the Scottish dialect required.

Readings in the Scottish Chaucerians; Drummond of Hawthornden; song and ballad literature; poets of the vernacular revival: Ramsay, Ferguson, and Burns. Papers and reports. (Not given in 1938-1939.) (Fitzhugh.)

ENG. 116 f. *Tennyson and Browning* (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

Wide reading of the poems with detailed study of selected pieces. (House.)

ENG. 117 f. *Minor Victorian Poets* (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

Arnold, Clough, Thompson, Swinburne, and others. (House.)

ENG. 118 s. *Modern and Contemporary British Poets* (3)—Three lectures.

Hardy, Kipling, Bridges, Noyes, Masefield, and others. (House.)

ENG. 120 f. *The English Novel* (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

Prose fiction in England from the later seventeenth century to the middle of the nineteenth. Lectures on the principles of narrative themes, structure, and style. Class reviews of selected novels. (House.)

ENG. 121 s. *The English Novel* (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

Continuation of Eng. 120 f. Discussion of later nineteenth century and twentieth century English fiction. (House.)

ENG. 123 f. *Modern Drama* (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A survey of English drama during the two centuries from 1660 to 1860. Class discussion of significant plays, outside reading, reports. (Fitzhugh.)

ENG. 124 s. *Contemporary Drama* (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of significant European and American dramatists from Ibsen to O'Neill. Class discussion of significant plays, outside reading, reports. (Fitzhugh.)

ENG. 125 f. *Emerson, Thoreau, and Whitman* (3)—Three lectures. Prerequisites, Eng. 7 f and 8 s.

A study of the major writings of Emerson, Thoreau, and Whitman, with emphasis on transcendentalism, idealism, and democracy. (Not given in 1938-1939.) (Warfel.)

ENG. 126 s. *American Fiction* (3)—Three lectures. Prerequisites, Eng. 7 f and 8 s.

Historical and critical study of the short story and novel in the United States from 1789 to 1920. (Not given in 1938-1939.) (Warfel.)

ENG. 127 f. *Contemporary American Poetry and Prose* (3)—Three lectures. Prerequisites, Eng. 7 f and 8 s.

Tendencies and forms in non-dramatic literature since 1920. (Warfel.)

ENG. 128 s. *American Drama* (3)—Three lectures. Prerequisites, Eng. 7 f and 8 s.

Historical study of representative American plays and playwrights from 1787 to 1920. (Warfel.)

For Graduates

Requirements for Advanced Degrees with Major in English (in addition to the general requirements of the Graduate School).

Master of Arts

1. Candidates for the degree of Master of Arts in the Department of English must demonstrate a reading knowledge of French or German at the time of admission or not later than six months before taking the degree.

2. Before the degree is awarded, candidates must have completed English 102 f and 103 s.

3. At the discretion of the department, the thesis may consist of one long paper or an equivalent amount of original research in the form of shorter papers. In either case, the candidate will be expected to demonstrate his ability to use the ordinary methods of research in the discovery of knowledge and to organize and present his findings in a clear, effective English style.

4. The final examination will be based in part upon the courses pursued and in part upon first-hand knowledge of all the literary works included in the departmental list of readings for the Master's degree. The examination will test the candidate's powers of analysis and criticism.

Doctor of Philosophy

1. The courses required for all candidates for the doctorate are as follows:

A. Three credit hours in Comparative Literature (101 f).

B. Six credit hours in Anglo-Saxon (Old English), English 102 f and 103 s, plus four credit hours in a seminar in Old English Poetry.

C. Four credit hours in Middle English Language (Eng. 202 f) and Gothic (Eng. 203 s).

2. Candidates must pass a comprehensive written examination, preferably one year before they expect to be awarded degrees. This examination will include linguistics (morphology and phonology) and each of the major literary fields, specifically: (1) Old English, (2) Middle English, (3) the Drama, (4) the Sixteenth and Seventeenth Centuries, (5) the Eighteenth and Nineteenth Centuries.

ENG. 201. *Research* (2-4). Credit proportioned to the amount of work and ends accomplished. Original research and the preparation of dissertations looking towards advanced degrees. (Staff.)

ENG. 202 f. *Middle English Language* (2)—Two lectures. Prerequisites, Eng. 102 f and 103 s.

A study of readings of the Middle English period, with reference to etymology and syntax. (House.)

ENG. 203 s. *Gothic* (2)—Two lectures. Prerequisite, Eng. 102 f.

A study of the forms and syntax, with readings from the Ulfilas Bible. Correlation of Gothic speech sounds with those of Old English. (House.)

ENG. 204 y. *Medieval Romance in England* (4)—Two lectures.

Lectures and readings in the cyclical and non-cyclical romances in Medieval England, and their sources, including translations from the Old French. (Hale.)

ENG. 205 f. *Seminar in Sixteenth-Century Humanism in England* (2)—Two lectures. Prerequisite, Eng. 107 s.

In 1939-1940, the subject will be *The continuity of early English humanism*. (Not offered in 1938-1939.) (Zeeveld.)

ENG. 206 f. *Seminar in Spenser* (2)—Two lectures. Prerequisite, Eng. 107 s.

In 1940-1941, the subject will be *Spenser and Sixteenth-Century Puritanism*. (Not offered in 1938-1939.) (Zeeveld.)

ENG. 207 f. *Seminar in Shakespeare* (2)—Two lectures. Prerequisites, Eng. 11 f and Eng. 12 s.

In 1938-1939, the subject will be *The bibliographical approach to the text of Shakespeare's plays*. (Zeeveld.)

ENG. 208 s. *Seminar in Eighteenth Century Literature* (2)—Two lectures.

Intensive study of one man's work or of one important movement of the century. (Not given in 1938-1939.) (Fitzhugh.)

ENG. 209 y. *Seminar in American Literature* (4)—Two lectures.

Critical and biographical problems in nineteenth century American Literature. The subject for 1938-1939 will be *Charles Brockden Brown and His Circle*. (Warfel.)

ENG. 210 f. *Seminar in the Romantic Period* (2)—Two lectures. Prerequisites, Eng. 113 f and 114 s, or an equivalent satisfactory to the instructor. One discussion period of two hours.

Special studies of problems or persons associated with the Romantic movement. The subject-matter of the course will vary with the interests of the class. (Hale.)

ENG. 211 s. *Victorian Prose* (2)—Two lectures.

English prose from about 1830. Study devoted chiefly to Carlyle, Mill, Arnold, Ruskin. (House.)

ENG. 212 s. *Browning's The Ring and the Book* (2)—Two lectures.

A study of the text, the sources, and the criticism. (Not given in 1938-1939.) (House.)

ENG. 213 s. *Browning's Dramas* (2)—Two lectures.

Luria, The Return of the Druses, Pippa Passes, Colombe's Birthday, A Blot in the Scutcheon, and others. (Not given in 1938-1939.) (House.)

ENTOMOLOGY

PROFESSOR CORY; LECTURERS SNODGRASS, HYSLOP, and YEAGER; ASSISTANT PROFESSOR KNIGHT; DR. DITMAN, DR. LANGFORD, MR. MCCONNELL, MR. ABRAMS, MR. BICKLEY.

ENT. 1 f or s. *Introductory Entomology* (3)—Two lectures; one laboratory.

The relationships of insects to the activities of mankind; the general principles of insect morphology, classification, adaptation; elementary principles of economic entomology. Field work and the preparation of a collection of representative insects of Maryland.

ENT. 2 s. *Insect Morphology* (3)—One lecture; two laboratories. Prerequisite, Ent. 1.

A study of the anatomy of insects, given especially in preparation for work in insect taxonomy and biology.

ENT. 3 f. *Insect Taxonomy* (3)—One lecture; two laboratories. Prerequisite, Ent. 2 s.

The general principles of taxonomy. An intensive study of the classification of all orders of insects and the principal families in the major groups. The preparation of a collection of insects is a major portion of the course.

ENT. 4 f. *Beekeeping* (2). One lecture; one laboratory. Prerequisite, Zool. 1 s.

History of beekeeping, natural history and behavior of the honeybee. A study of the beekeeping industry. A non-technical course intended to acquaint the student with the honeybee as an object of biological and cultural interest, and to serve as an introduction to the science of apiculture.

ENT. 5 s. *Insect Biology* (3)—Two lectures; one laboratory. Prerequisite, Ent. 1.

A continuation of some of the general aspects of entomology begun in Ent. 1, with emphasis upon the adaptations, behavior, inter-relationships, and ecology of insects.

ENT. 6 f. *Apiculture* (3)—Two lectures; one laboratory. Prerequisites, Zool. 1 f or s, and Ent. 1 f or s.

A study of the life history, yearly cycle, behavior, and activities of the honeybee. The value of honeybees as pollenizers of economic plants and as producers of honey and wax. Designed to be of value to the student of agriculture, horticulture, entomology, and zoology.

ENT. 7 s. *Apiculture* (3)—Two lectures; one laboratory. Prerequisite, Ent. 6 f.

Theory and practice of apiary management. Designed for the student who wishes to keep bees or desires a knowledge of practical apiary management.

ENT. 8 f, 8 s. *Entomological Technic and Scientific Delineation* (4)—Two laboratories. Prerequisite, Ent. 1 f or s.

Collecting, rearing, preserving, and mounting of insects. The preparation of exhibits, materials for instruction, entomological records. Methods of illustrating, including drawing, photography, lantern slide making, and projection. Useful for prospective teachers of biology as well as for the entomological student. (Not offered in 1938-1939.)

For Advanced Undergraduates and Graduates

ENT. 101 y. *Economic Entomology* (4)—Two lectures.

An intensive study of the problems of applied entomology, including life history, ecology, behavior, distribution, parasitism, and control. (Cory.)

ENT. 102 y. *Economic Entomology* (4)—Two laboratories.

Expansion of Ent. 101 y to include laboratory and field work in economic entomology. (Not given in 1938-1939.) (Cory.)

ENT. 103 y. *Seminar* (2).

Presentation of original work, book reviews, and abstracts of the more important literature. (Cory, Knight.)

ENT. 104 f, 104 s. *Insect Pests of Special Groups* (6)—Two lectures; one laboratory. Prerequisite, Ent. 1 f or s.

A study of the principal insects of one or more of the following groups, founded upon food preferences and habitat. The course is intended to give the general student a comprehensive view of the insects that are of importance in his major field of interest and detailed information to the student specializing in entomology. (Not given in 1938-1939.)

Insect Pests of 1. Fruit. 2. Vegetables. 3. Flowers, both in the open and under glass. 4. Ornamentals and Shade Trees. 5. Forests. 6. Field Crops. 7. Stored Products. 8. Live Stock. 9. The Household. (Cory.)

ENT. 105 f. *Medical Entomology* (2)—Two lectures. Prerequisite, Ent. 1 f or s, and consent of instructor.

The relation of insects to diseases of man, directly and as carriers of pathogenic organisms. Control of pests of man. The fundamentals of parasitology. (Knight.)

ENT. 106 s. *Insect Taxonomy* (3)—Two lectures; one laboratory.

An advanced course dealing with the principles and practices underlying modern systematic entomology. (Hyslop.)

ENT. 107 s. *Theory of Insecticides* (2)—Two lectures.

The development and use of contact and stomach poisons, with regard to their chemistry, toxic action, compatibility, and foliage injury. Recent work with insecticides will be especially emphasized. (Ditman.)

ENT. 109 s. *Insect Physiology* (2)—Two lectures; occasional demonstrations. Enrollment subject to consent of instructor.

The functioning of the insect body with particular reference to blood, circulation, digestion, absorption, excretion, respiration, reflex action and the nervous system, and metabolism. (Yeager.)

ENT. 110 f and s. *Special Problems*. Credit and prerequisite to be determined by the staff.

The intensive investigation of some entomological subject. A report of the results is submitted as part of the requirements for graduation. (Cory and Staff.)

ENT. 111 s. *Coccidology* (2)—Two laboratories.

A study of morphology, taxonomy, and biology of the higher groups of the scale insects. The technic of preparation and microscopy are emphasized. Laboratory studies are supplemented by occasional lectures. (McConnell.)

For Graduates

ENT. 201 y. *Advanced Entomology* (1-3)—One lecture; one laboratory by arrangement.

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

ENT. 202 y. *Research in Entomology*.

Advanced students having sufficient preparation, with the approval of the head of the department, may undertake supervised research in morphology, taxonomy, or biology and control of insects. Frequently the student may be allowed to work on Station or State Horticultural Department projects. The student's work may form a part of the final report on the project and

be published in bulletin form. A dissertation suitable for publication must be submitted at the close of the studies as a part of the requirements for an advanced degree. (Cory.)

ENT. 203 f. *Insect Morphology* (2-4)—Two lectures; and laboratory work by special arrangement, to suit individual needs.

Insect anatomy with special relation to function. Given particularly in preparation for work in physiology and other advanced studies.

(Snodgrass.)

ENT. 204 y. *Economic Entomology* (6)—Three lectures. Studies of the principles underlying applied entomology, and the most significant advances in all phases of entomology. (Cory.)

ENT. 205 s. *Insect Ecology* (2)—One lecture; one laboratory.

A study of the fundamental factors involved in the relationship of insects to their environment. Emphasis is placed on the insect as a dynamic organism adjusted to the environment. (Langford.)

FARM FORESTRY

PROFESSOR BESLEY.

FOR. 1 s. *Farm Forestry* (3)—Two lectures; one laboratory. Alternate year course. Junior and senior years. Prerequisite, Bot. 101 f.

A study of the principles and practices involved in managing woodlands on the farm. The course covers briefly the identification of trees; forest protection; management, measurement, and utilization of forest crops; nursery practice; and tree planting. The work is conducted by means of lectures and practice in the woods.

GENETICS AND STATISTICS

PROFESSOR W. B. KEMP; MRS. TITT.

G. AND S. 14 f. *Elements of Statistics* (3)—Three lectures.

Organized for students in Economics and Commerce. A study of the fundamental principles used in statistical investigation, together with the making of diagrams, graphs, charts, and tables.

G. AND S. 15 s. *Economic Statistics* (3)—Three lectures. Prerequisite, G. and S. 14 f.

A study of error, measures of relationship, partial correlation, rectilinear and curvilinear multiple correlation and regression, analysis of variance and covariance.

For Advanced Undergraduates and Graduates

G. AND S. 101 f. *Genetics* (3)—Three lectures.

A general course designed to give an insight into the principles of genetics, or of heredity, and also to prepare students for later courses in the breeding of animals or of plants.

G. AND S. 102 s. *Advanced Genetics* (2)—Two lectures. Prerequisite, G. and S. 101 f. Alternate year course.

A consideration of chromosome irregularities and other mutations, interspecies crosses, identity and nature of the gene, genetic equilibrium, statistical significance of genetic phenomena.

G. AND S. 111 f. *Biological Statistics* (2)—Two lectures.

Organized for biology students. A study of expressions of type, variability, correlation, regression, error and significance of differences.

G. AND S. 112 s. *Advanced Biological Statistics* (2)—Two lectures. Prerequisite, G. and S. 111 f.

A study of error, multiple and partial correlation, predictive formulae, empirical curve fitting, analysis of variance and covariance.

G. AND S. 116 s. *Statistical Design* (2)—Two lectures. Prerequisite, G. and S. 15 s or 112 s.

A study of the principles of logical design for investigations when the resulting data are to be subjected to statistical analysis. Methods and uses of randomization, factorial design, and confounding are considered in some detail.

G. AND S. 120. *Problems* (2-4).

To acquire training and experience in independent statistical analysis, each student will select an approved problem for organization, analysis, and presentation of results.

For Graduates

G. AND S. 201 y. *Plant Breeding*. Credit according to work done.

G. AND S. 209 y. *Research*. Credit according to work done.

GEOLOGY

PROFESSOR BRUCE.

GEOL. 1 f. *Geology* (3)—Two lectures; one laboratory.

A textbook, lecture, and laboratory course, dealing with the principles of geology and their application to agriculture. While this course is designed primarily for agriculture students in preparation for technical courses, it may also be taken as part of a liberal education.

HISTORY

PROFESSORS BAKER-CROTHERS, STRAKHOVSKY; ASSOCIATE PROFESSOR HIGHBY; ASSISTANT PROFESSOR THATCHER; MR. SILVER, DR. DOZER, DR. PRANGE.

H. 1 y. *A Survey of Western Civilization* (6)—One lecture and two recitations a week.

A general course covering the broad movements of European history which contributed to the formation of our modern institutions. The aim of the course is to make the student cognizant of the present trends in this changing world.

H. 2 y. *American History* (6)—One lecture and two recitations a week. Open to sophomores.

An introductory course in American history from the discovery of the New World to the present time.

H. 3 y. *History of England and Great Britain* (6)—Lectures and discussion open to freshmen and sophomores. Upperclassmen only with permission and with reduced credit (4).

A survey course of English history from earliest times to the World War.

For Advanced Undergraduates and Graduates

H. 101 y. *American Colonial History* (6)—Three lectures. Prerequisite, H. 2 y.

A study of the political, economic, and social development of the American people from the discovery of America through the formation of the Constitution. (Baker-Crothers.)

H. 102 y. *Recent American History* (6)—Three lectures. Prerequisite, H. 2 y.

The history of national development from the close of the Civil War to the present time. (Thatcher.)

H. 104 f. *Social and Economic History of the United States* (3)—Three lectures. Prerequisite, H. 2 y.

An advanced course, giving a synthesis of American life from 1607 to 1790. (Baker-Crothers.)

H. 105 s. *Social and Economic History of the United States* (3)—Three lectures. Prerequisite, H. 2 y.

This course is similar to H. 104 f, and covers the period from 1790 to 1860. (Baker-Crothers.)

H. 106 f. *Diplomatic History of the United States* (2)—Two lectures. Prerequisite, H. 2 y.

A study of American foreign policy. (Thatcher.)

H. 107 s. *Diplomatic History of the United States* (2)—Two lectures. Prerequisite, H. 2 y.

This course is a continuation of H. 106 f. (Thatcher.)

H. 108 f. *Constitutional History of the United States* (3)—Three lectures. Prerequisite, H. 2 y.

A study of the historical forces resulting in the formation of the Constitution, and of the development of American constitutionalism in theory and practice thereafter. (Thatcher.)

H. 109 s. *Constitutional History of the United States* (3)—Three lectures. Prerequisite, H. 2 y.

A continuation of H. 108 f. (Thatcher.)

H. 110 f. *History of the United States, 1789-1865* (2)—Two lectures. Prerequisite, H. 2 y.

The history of national development to the end of the Civil War. (Thatcher.)

H. 111 s. *History of the United States, 1789-1865* (2)—Two lectures. Prerequisite, H. 2 y.

This course is a continuation of H. 110 f. (Thatcher.)

H. 112 f. *History of Maryland* (2)—Two lectures. Prerequisite, H. 2 y. A survey of the political, economic, and social progress of Maryland as colony and state.

H. 113 s. *History of Maryland* (2)—Two lectures. Prerequisite, H. 2 y. This course is a continuation of H. 112 f.

H. 115 f. *Medieval History* (2)—Two lectures. Prerequisite, H. 1 y. A brief survey of the medieval period, with special emphasis on the legacy of the Middle Ages. (Prange.)

H. 117 s. *Renaissance and Reformation* (2)—Two lectures. Prerequisite, H. 1 y.

A brief survey of the Renaissance and Reformation. (Prange.)

H. 119 f. *Seventeenth and Eighteenth Century Europe* (2)—Two lectures. Prerequisite, H. 1 y or H. 3 y.

A study of the political, economic, social, and intellectual ferment of the "Age of Reason." (Silver.)

H. 120 s. *Revolutionary and Napoleonic Europe* (2)—Two lectures. Prerequisite, H. 1 y or H. 3 y.

A study of the French Revolution and the relation of Revolutionary France with the rest of Europe, 1789-1815. (Silver.)

H. 121 f. *Expansion of Europe* (3)—Three lectures. Prerequisite, H. 1 y.

A treatment of European history from the Crusades to the present, emphasizing especially the expansion of national states. (Silver.)

H. 122 s. *Expansion of Europe* (3)—Three lectures. Prerequisite, H. 1 y.

This course is a continuation of H. 121 f. (Silver.)

H. 123 f. *Diplomatic History of Europe since 1871* (3)—Three lectures. Prerequisite, H. 1 y.

A study of European alliances and alignments. World politics and imperialism in the pre-World War period, and developments since the World War. (Not given in 1938-1939.) (Strakhovsky.)

H. 124 s. *Diplomatic History of Europe since 1871* (3)—Three lectures. Prerequisite, H. 1 y.

This course is a continuation of H. 123 f. (Not given in 1938-1939.)

H. 125 f. *Constitutional History of England* (3)—Three lectures. Prerequisite, H. 1 y or H. 3 y.

This course traces the historical development of English political institutions. (Silver.)

H. 126 s. *Constitutional History of England* (3)—Three lectures. Prerequisite, H. 1 y or H. 3 y.

This course is a continuation of H. 125 f. (Silver.)

H. 127 f. *Europe since 1815* (3)—Three lectures and assignments. Prerequisite, H. 1 y.

An intensive course in European history from 1815 to the present time. (Strakhovsky.)

H. 128 s. *Europe since 1815* (3)—Three lectures and assignments. Prerequisite, H. 1 y.

This course is a continuation of H. 127 f. (Strakhovsky.)

H. 129 f. *Ancient History* (2)—Two lectures. A general survey course—the Near East, Greece, and Rome. (Highby.)

H. 130 s. *Ancient History* (2)—Two lectures. A continuation of H. 129 f. (Highby.)

H. 131 f. *Latin American History* (2)—Two lectures. Prerequisite, H. 1y or H. 2y.

A survey of the history of the Latin American states through this colonial period to the wars of independence. (Dozer)

H. 131 s. *Latin American History* (2)—Two lectures. Prerequisite, H 1y or H. 2y.

A survey of the history of the Latin American states from the wars of independence to the present with special emphasis upon Argentine, Brazil, Chile, and Mexico and upon their relations with the United States.

This course is a continuation of H. 129 f. (Dozer)

For Graduates

H. 200 y. *Research* (2-4). Credit proportioned to the amount of work. (Staff.)

H. 201 y. *Seminar in American History* (4)—Conferences and reports on related topics. (Baker-Crothers.)

H. 202 y. *Bibliography and Historical Criticism* (4). (Staff.)

HOME ECONOMICS

PROFESSORS MOUNT, MCFARLAND, WELSH; ASSISTANT PROFESSORS CURTISS, KIRKPATRICK; MISS BARNES, MISS KESSINGER, MISS BRYANT.

Home Economics Lectures

H. E. 1 y. *Home Economics Lectures* (2)—Two recitations. Lectures, demonstrations, group and individual discussions on grooming, personality development, personal adjustments, health, and social usage. (Staff.)

Textiles and Clothing

H. E. 11 s. *Clothing* (3)—Three laboratories. Use of commercial patterns; construction of 3 garments according to modern methods; study of clothing expenditures. (Kessinger.)

H. E. 21 s. *Design* (3)—One recitation; two laboratories. Elements of design; application of design principles to daily living; practice in designing. (McFarland.)

H. E. 24 f. *Costume Design* (3)—One recitation; two laboratories. Prerequisite, H. E. 21 s or equivalent.

A study of fundamentals underlying taste, fashion, and design as they relate to the expression of individuality in dress. (McFarland.)

H. E. 25 s. *Crafts* (2)—Two laboratories. Creative art expressed in clay modeling, plastic carving, metal working, paper mache modeling, etc. Emphasis laid upon inexpensive materials and tools and simple technic. (Curtiss.)

H. E. 71 f. *Textiles* (3)—Two recitations; one laboratory. History of textile fibers, their source, production, manufacture, characteristics, identification, and use. Collection and analysis of new materials; regulations governing standardization; selection of men's, women's, and children's ready-to-wear garments; care, cleaning, and storage of clothing and furs. (Kessinger.)

Courses for Advanced Undergraduates and Graduates

H. E. 111 f. *Advanced Clothing* (3)—Three laboratories. Prerequisite, H. E. 11 s and H. E. 24 f, or equivalent.

Draping of garments in cloth on dress form, stressing style, design, and suitability to the individual.

H. E. 112 s. *Special Clothing Problems* (3)—One recitation; two laboratories. Prerequisite, H. E. 11 f.

Clothing renovation, clothing for children, and an individual clothing project. (Kessinger.)

H. E. 171 f. *Advanced Textiles* (3)—One recitation; two laboratories. Prerequisite, H. E. 71 f.

The study of the production of textile fibers; the manufacture of fabrics and their relationship to the consumer; textile microscopy; reports on assigned readings in current literature on textiles. (Kessinger.)

H. E. 172 f. *Special Textile Problems* (4)—One recitation; two laboratories. Prerequisite, H. E. 171 f.

Testing and experimental work in textiles. (Kessinger.)

Foods and Nutrition

H. E. 31 y. *Foods* (6)—One recitation; two laboratories. Prerequisite, Chem. 1 y.

Composition, selection, and preparation of food, with a study of the scientific principles involved; analysis of recipes and study of standard products. (Barnes and Kirkpatrick.)

H. E. 32 f. *Elements of Nutrition* (3)—Three recitations.
A study of normal nutritional needs; the relation of food to health; planning of adequate dietaries for adults. (Welsh.)

For Advanced Undergraduates

H. E. 131 f or s. *Nutrition* (3)—Three recitations. Prerequisites, H. E. 31 y and Chem. 12 f.

A scientific study of principles of human nutrition. (Welsh.)

H. E. 132 s. *Dietetics* (3)—Three recitations. Prerequisite H. E. 131 f.
A study of food selection for health and its adaptations in disease. (Welsh.)

H. E. 133 f or s. *Demonstrations* (2)—Two laboratories.
Practice in demonstrations. (Welsh and Barnes.)

H. E. 134 s. *Advanced Foods* (3)—One recitation; two laboratories. Prerequisite, H. E. 31 y.

Advanced study of manipulation of food materials. (Welsh.)

H. E. 135 f. *Experimental Foods* (4)—Two recitations; two laboratories.
Prerequisites, H. E. 31 y, H. E. 137 s, Chem. 12 A y.

Study of experimental procedures and technics in jelly making, vegetable cookery, emulsions, and batters and doughs. (Kirkpatrick.)

H. E. 136 s. *Child Nutrition* (2)—Two recitations.
Lectures and discussions relating to the principles of child nutrition. (Welsh.)

H. E. 137 s. *Food Buying and Meal Service* (3)—One recitation; two laboratories. Prerequisite H. E. 31 y.

Study of problems in food buying; planning and service of meals for the family group, including simple entertaining in relation to nutritional needs and cost. (Barnes and Kirkpatrick.)

For Graduates

H. E. 201 f or s. *Seminar in Nutrition* (2).
Oral and written reports on current literature on nutrition.

H. E. 202 f or s. *Research*. Credit to be determined by amount and quality of work done.

With the approval of the head of the department, the student may pursue an original investigation in some phase of foods. The result may form the basis of a thesis for an advanced degree.

H. E. 203 f or s. *Advanced Experimental Foods* (3)—One recitation; two laboratories.

Experimental work with foods.

H. E. 204 f. *Readings in Nutrition* (2)—Two recitations.

Reports and discussions of outstanding nutritional research and investigations.

Practical Art

H. E. 121 f. *Interior Decoration* (3)—One recitation; two laboratories.
Prerequisite, H. E. 21 s or equivalent.

Study of traditional styles and design principles with relation to personalities in home planning and furnishing; trips to historic buildings; special merchandise lectures showing what the market provides. Minimum of drawing. (Curtiss.)

H. E. 122 s. *Interior Decoration* (3)—One recitation, two laboratories.
Prerequisite, H. E. 121 f. Continuation of H. E. 121 f. (Curtiss.)

H. E. 123 f. *Advanced Design* (3)—Three laboratories. Prerequisite, H. E. 122 and H. E. 111 f, or equivalent.

Professional aspects of costume or interior design; contact with commercial establishments. Design expressed in various mediums. Students may choose one of the two fields listed as follows:

(a) *Advanced Costume Design*—Designing of costumes on paper and in cloth; a study of garment merchandising including fashion illustration, shop display, and other phases of promotional work.

(b) *Interior Design*—Designing of rooms, including interior architecture, furniture, fabrics, accessories; arrangement of display rooms in stores. Drawing to scale. (Curtiss.)

H. E. 124 s. *Advanced Design* (3)—Three laboratories.

H. E. 125 s. *Merchandise Display* (2).

Practice in effective display of merchandise for windows, show cases, and other parts of store interiors. Cooperation with retail establishments. Prerequisite, Design H. E. 21 s or equivalent. (Curtiss.)

Home and Institution Management

H. E. 141 f. *Management of the Home* (3)—Two lectures; one laboratory.

Study and discussion of household organization and management; time and money budgets; house construction and planning; selection, operation, and care of equipment; selection and care of household furnishings, with a view to providing well-being and satisfaction for the members of the family.

H. E. 142 s. *Management of the Home* (3)—Two lectures; one laboratory.

The family, its history; discussion of questions and problems of the family in relation to changing social and economic conditions.

H. E. 143 f or s. *Practice in Management of the Home* (4).

Experience in operating and managing a household composed of a member of the faculty and a small group of students for approximately one-third of a semester.

H. E. 144 y. *Institution Management* (6)—Three recitations.

The organization and management of food service in hospitals, clubs, schools, cafeterias, and restaurants; management of room service in dormitories; organization of institution laundries.

H. E. 145 f. *Practice in Institution Management* (4)—Prerequisite, H. E. 144 y.

Practice work in one of the following: the University dining hall, a tea room, hospital, cafeteria, or hotel.

H. E. 146 s. *Advanced Institution Management* (3)—Prerequisite, H. E. 144 y. One recitation weekly and individual conferences with the instructor.

Special problems in institution management.

H. E. 147 f. *Institution Cookery* (3)—One recitation; two laboratories. Prerequisites, H. E. 31 y, H. E. 137 s, H. E. 144 y.

Application of principles of food preparation to cookery for institutions; study of standard technics; menu planning and costs; use of institutional equipment; practice in cafeteria counter service.

Home Economics Extension

H. E. 151 s. *Methods in Home Economics Extension* (3)—Given under the direction of Venia Kellar and specialists.

H. E. 152 f. *Field Practice in Home Economics Extension* (4)—Given under the direction of Venia Kellar, State Home Demonstration Agent. Should be taken during the summer vacation.

HORTICULTURE

PROFESSORS SCHRADER, MAHONEY, THURSTON; ASSOCIATE PROFESSORS HAUT, LINCOLN, SHOEMAKER; ASSISTANTS CHASE, STIER.

HORT. 1 f. *General Horticulture* (3)—Three lectures.

An introductory course, discussing the several phases of horticulture which include vegetable production, fruit production, flower and ornamental plant production, and landscape gardening. This systematic survey of the problems of horticulture and practical means of solution is designed for all students.

HORT. 2 s. *General Horticulture* (3)—Three lectures.

A continuation of Hort. 1 f.

HORT. 3 f. *Fruit Production* (2, 3, or 5)—Two lectures and one to three laboratories. Some laboratories may be taken without lectures.

Seasonal discussion and experience with orchard and packing house operations, including spraying, harvesting, spray residue removal, grading, packing, rodent control, sanitation, pruning, grafting, planting, pollination,

etc. Also identification and judging of fruit varieties, leading to a selection of a fruit judging team to compete in the Eastern States Fruit Judging League for medals and other trophies.

HORT. 4 s. *Vegetable Production* (2 or 4)—Two lectures, two laboratories.

A study of the fundamental principles underlying all garden practices. The laboratory work is organized from the point of view of the home garden and commercial truck garden. Special studies are made of vegetable seed identification, methods of growing plants, garden planning, pest control, etc.

HORT. 5 f. *Greenhouse Management* (3)—Two lectures; one laboratory.

A detailed consideration of various types of houses and their management; location with respect to sites and markets; arrangement, construction, and costs of building and operation; practical methods of culture of all greenhouse crops under several conditions. (Given in alternate years; not offered in 1939-1940.)

HORT. 6 s. *Greenhouse Construction and Management* (3 or 4)—A continuation of Hort. 5 f.

HORT. 7 s. *Small Fruits* (2-3)—Two lectures; one laboratory. Lectures can be taken without laboratory.

The care and management of small fruit plantations. Varieties and their adaptation to Maryland soils and climate, packing, marketing, and a study of the experimental plots and varieties on the Station grounds. The following fruits are discussed: the grape, strawberry, blackberry, blackcap raspberry, red raspberry, currant, gooseberry, dewberry, loganberry, and blueberry.

HORT. 8 f. *Garden Flowers* (3)—Two lectures; one laboratory.

Plants for garden use; the various species of annuals, herbaceous perennials, bulbs, bedding plants, and roses and their cultural requirements. (Given in alternate years; not offered in 1939-1940.)

HORT. 9 y. *Commercial Floriculture* (6-7)—Two lectures; one or two laboratories. Prerequisite, Hort. 5 f and 6 s.

Methods of handling florist's bench crops and potted plants, the marketing of cut flowers, the retail business, and floral design and decoration. Trips to important commercial centers and flower shows will be made. (Given in alternate years; not offered in 1938-1939.)

HORT. 10 f. *Landscape Gardening* (2)—Two lectures.

The theory and general principles of landscape gardening and their application to private and public areas. Special consideration is given to the improvement and beautification of the home grounds, farmsteads, and small suburban properties. Adapted to students not intending to specialize in landscape, but who wish some theoretical and practical knowledge of the subject.

HORT. 11 f. *Landscape Design* (3)—One lecture; two laboratories.

A consideration of the principles of landscape design; surveys, mapping, and field work.

HORT. 12 s. *Landscape Design* (2)—Two laboratories. Prerequisite, Hort. 11 f.

The design of private grounds and gardens of architectural details used in landscape; planting plans; analytical study of plans of practicing landscape architects; field observation of landscape developments.

HORT. 13 s. *Civic Art* (2)—One lecture; one laboratory.

Principles of city planning and their application to village and rural improvement, including problems in design of civic center, parks, school grounds, and other public and semi-public areas. (Given in alternate years; not offered in 1939-1940.)

HORT. 14 y. *Seminar* (2).

In this course papers are prepared and presented orally by members of the class upon subjects pertaining to their research or thesis work or upon special problems assigned them. Discussions of special topics are given from time to time by members of the departmental staff.

HORT. 15 y. *Special Problems* (2-4).

An advanced student in any of the four divisions of horticulture may select a special problem for investigation. This may be either the summarizing of all the available knowledge on a particular problem or the investigation of some new problem. Where original investigation is carried on, the student should in most cases start the work during the junior year. The results of the research are to be presented in the form of a thesis and filed in the horticultural library.

For Advanced Undergraduates and Graduates

HORT. 101 f. *Technology of Horticultural Plants* (1, 3, or 4)—One or three lectures; one laboratory.

A critical analysis of detailed studies on horticultural plants in relation to application to practice. An interpretation of horticultural knowledge, based on principles of physiology, chemistry, and other sciences. A study of underlying principles involved in growth, fruiting, storage, and quality of horticultural plants and products. (Haut, Mahoney.)

HORT. 102 s. (1, 3, or 4 credits)—Two or three lectures; one laboratory.

This course is a continuation of Hort. 101 f. (Haut, Mahoney.)

HORT. 103 f. *Systematic Pomology* (3)—Two lectures; one laboratory.

The history, botany, and classification of fruits and their adaptation to Maryland conditions. (Given in alternate years; not offered in 1939-1940.)

(Haut.)

HORT. 104 s. *Systematic Olericulture* (3)—Two lectures; one laboratory.

A study of the classification and nomenclature of vegetable crops and the description and identification of varieties. The adaptation of varieties to different environmental conditions and their special uses in vegetable production. (Given in alternate years; not offered in 1939-1940.)

(Mahoney.)

HORT. 105 s. *World Fruits and Nuts* (2)—Two lectures.

A study is made of the botanical, ecological, and physiological characteristics of all species of fruit-bearing plants of economic importance, such as the date, pineapple, fig, olive, banana, nut-bearing trees, citrus fruits, and newly introduced fruits, with special reference to their cultural requirements in certain parts of the United States and the insular possessions. All fruits are discussed in this course which have not been discussed in a previous course. (Given in alternate years; not offered in 1938-1939.)

(Haut.)

HORT. 106 y. *Plant Materials* (5)—One lecture; one or two laboratories.

A field or laboratory study of trees, shrubs, and vines used in ornamental planting. (Given in alternate years; not offered in 1938-1939.) (Thurston.)

LIBRARY SCIENCE

MR. HINTZ, MR. FOGG, MR. BROWN, MR. ZIEGAUS.

L. S. 1 f or s. *Library Methods* (1)—Freshman Year.

This course is intended to help students use libraries with greater facility and effectiveness. Instruction, given in the form of lectures and practical work, is designed to interpret the library and its resources to the student. The course considers the classification of books in libraries, the card catalog, periodical literature and indexes, and certain essential reference books which will be found helpful throughout the college course and in later years.

MATHEMATICS

PROFESSORS T. H. TALIAFERRO, DANTZIG; ASSOCIATE PROFESSOR YATES; ASSISTANT PROFESSORS MARTIN, TITT, SAGEN; DR. ALRICH, DR. LANCASTER; MR. VOLCKHAUSEN, MR. UMBERGER; MR. LADEN, MISS BARZHE.

MATH. 1 A f. *Introductory Algebra* (0)—Three lectures. Open without credit to students of engineering, chemistry, and physics who lack the required preparation for Math. 21 f.

Fundamental operations; linear and quadratic equations; exponents and logarithms, etc.

MATH. 7 f. *Solid Geometry* (2)—Two lectures. Prerequisite, plane geometry. College credit given only to students in the College of Education. Open without credit to students desiring to enter the College of Engineering who have had no opportunity to take the subject in high school.

Lines and planes; cylinders and cones; the sphere; polyhedra.

MATH. 8 f. *Algebra* (3)—Three lectures. Prerequisite, one year of high school algebra. Required of students of biology; premedical and pre dental students, who have not sufficient preparation to enter Math. 11 f. Repeated during the second semester.

Quadratic equations; polynomials and their graphs; elementary theory of equations; progressions; binomial theorem; logarithms; permutations and combinations.

MATH. 10 s. *Plane Trigonometry and Analytic Geometry* (3)—Three lectures. Prerequisite, Math. 8 f or 11 f. Required of students of biology; premedical and pre dental students.

Trigonometric identities; equations and graphs; principles of plane analytic geometry; line and circle; ellipse, parabola, hyperbola; other plane curves; graphing of empirical equations.

MATH. 11 f. *Algebra* (3)—Three lectures. Prerequisite, high school algebra completed. Required of students of biology; of premedical and pre dental students. Repeated during the second semester.

Simultaneous solution of quadratic and higher equations; properties of polynomials; theory of equations; binomial expansion; progressions; combinatorial analysis; logarithms; empirical equations; determinants.

MATH. 18 y. *Geometrical Drawing and Modeling* (2)—One laboratory. Required of students whose major is mathematics, and of students in the College of Education with mathematics as their major.

Problems in geometrical construction, in projective geometry, in geometrical optics; mechanical generation of curves.

MATH. 19 y. *Advanced Geometrical Drawing and Modeling* (2)—One laboratory. Prerequisite, Math. 18 y. Required of students whose major is mathematics, and of students in the College of Education with mathematics as their major.

Elements of descriptive geometry; projections of skew curves and sections of surfaces; construction of models of space configurations.

MATH. 20 y. *General Mathematics* (6)—Three lectures. Primarily intended for students of economics and the social sciences. Required of all students in Business Administration. Prerequisite, one year of high school algebra.

Principles of algebra, trigonometry, analytic geometry; mathematics of finance; quadratic and higher equations; progressions and logarithms; compound interest and annuities; permutations and combinations; probabilities; graphing of algebraic and trigonometric functions; construction and interpretation of graphs; interpolation and approximation methods; rudiments of the calculus; introduction to statistical methods.

MATH. 21 f. *College Algebra* (4)—Three lectures and one laboratory. Prerequisite, high school algebra completed. Required of all students in the College of Engineering; of students whose major is mathematics, physics, or chemistry; of students in the College of Education who elect mathematics as their major or minor. Repeated in the second semester.

Foundations of algebra; binomial and multinomial expansions; progressions; determinants; elements of the theory of numbers; combinatorial analysis and probabilities; complex numbers; theory of equations; exponential functions and logarithms.

MATH. 22 s. *Analytic Geometry* (4)—Three lectures and one laboratory. Prerequisite, Math. 21 f. Required of all students in the College of Engineering; of students whose major is mathematics, physics, or chemistry; of students in Education who elect mathematics as their major or minor.

Principles of trigonometry; Cartesian and polar coordinates; line and circle; curves of the second order; higher algebraic and transcendental curves; periodograms; solid analytics and spherical trigonometry.

MATH. 23 y. *Calculus* (4)—Three lectures and one laboratory. Prerequisites, Math. 10 s or 22 s. Required of all students in the College of Engineering; of students with a major in mathematics, physics, or chemistry; of students in the College of Education who elect mathematics as their major or minor.

Limits, derivatives, and differentials; maxima and minima; curvature; evolutes; envelopes; elements of curve theory; elementary theory of functions; partial derivatives. Indefinite and definite integrals; multiple integrals; calculation of arcs, areas, volumes, and moments; expansion in series; differential equations with applications to mechanics.

MATH. 24 y. *Elementary Mathematical Analysis* (6)—Three lectures. Prerequisite, Math. 8 f and 10 s, or Math. 20 y.

A survey course in the differential and integral calculus, intended primarily for students of the biological, economical, and social sciences. Special emphasis will be laid on graphical analysis, empirical laws, statistical interpretation, etc.

For Advanced Undergraduates and Graduates

MATH. 111 f. *Elementary Mathematics from an Advanced Standpoint* (2)—Two lectures.

A survey course in high school mathematics intended for workers in biological and social sciences, and for prospective teachers of mathematics and physics. (Dantzig.)

MATH. 112 s. *College Mathematics* (2)—Two lectures. Prerequisite, Math. 111 f or 8 f, or equivalent courses.

A survey course of algebra, trigonometry, analytic geometry, and the calculus, intended for workers in the biological sciences and for prospective teachers of high-school mathematics and physics. (Dantzig.)

MATH. 114 f. *Differential Equations for Engineers* (3)—Three lectures. This course is conducted in close cooperation with the College of Engineering, and deals with aspects of mathematics which arise in engineering theory and practice. Among the topics treated are the following: linear

differential equations; advanced methods in kinematics and dynamics; applications of analysis to electrical circuits, to aero-dynamics, bridge-design, etc. (Titt, Lancaster.)

MATH. 115 s. *Applied Calculus for Chemists* (3)—Three lectures. Prerequisite, Math. 23 y.

This course is conducted in close cooperation with the Chemistry Department, and deals with the aspects of mathematics which arise in the theory and practice of chemistry. Among the topics treated are the following: partial and total derivatives; applications of mathematical analysis to thermo-dynamics, to molecular and atomic phenomena, and to physical chemistry. (Yates.)

MATH. 116 f. *Advanced Trigonometry* (2)—Two lectures. Prerequisite, Math. 23 y or its equivalent.

Complex numbers; De Moivre, Euler and allied identities; trigonometric series and infinite products; graphing of periodic functions; hyperbolic trigonometry; trigonometric solution of equations; principles of spherical trigonometry, with applications to geodetic survey and astronomy. (Dantzig.)

MATH. 122 s. *History of Elementary Mathematics* (2)—Two lectures. History of arithmetic, algebra and geometry. (Dantzig.)

MATH. 131 f. *Analytical Mechanics* (2)—Two lectures. Prerequisite, Math. 23 y.

Kinematics; the dynamics of a particle; statics; the principles of D'Alembert; the dynamics of a system; the equations of Lagrange and Jacoby; the principle of Hamilton. (Yates.)

MATH. 132 s. *Theory of Probabilities* (2)—Two lectures. Prerequisite, Math. 23 y.

Frequency and probability; the concept of "equally likely"; combinatorial analysis; addition and multiplication theorems; frequency of distribution; continuous probabilities; applications to statistics, theories of errors and correlations, and to molecular theories. (Titt.)

MATH. 140 y. *Undergraduate Seminar* (2)—One Session.

Required of students whose major is mathematics. This course is intended as a clearing house of problems which arise in the undergraduate courses in mathematics. (Staff.)

MATH. 141 f. *Higher Algebra* (2)—Two lectures. Prerequisite, Math. 23 y.

Identities; multinomial expansion; combinatorial analysis; mathematical induction; undetermined coefficients; determinants; elementary theory of equations; complex magnitudes. (Yates.)

MATH. 142 s. *Higher Algebra* (2)—Two lectures. Prerequisite, Math. 141 f or its equivalent.

Inequalities; continued fractions; summation of series; difference equations; theory of numbers; diophantine equations. (Yates.)

MATH. 143 f. *Advanced Calculus* (2)—Two lectures. Prerequisite, Math. 23 y.

General methods of integration; multiple integration with physical applications; partial differentiation; geometrical and physical applications; mean value theorem; Jacobians; envelopes. (Martin.)

MATH. 144 s. *Advanced Calculus* (2)—Two lectures. Prerequisite, Math. 143 f or its equivalent.

Elliptic integrals; line integrals; Green's theorem; equation of continuity; applications to hydrodynamics. (Martin.)

MATH. 145 f. *Advanced Plane Analytic Geometry* (2)—Two lectures. Prerequisite, Math. 23 y.

Homogeneous coordinates; advanced theory of conic sections; Plucker characters of algebraic curves; cubic and quartic curves; Cremona transformations. (Dantzig.)

MATH. 146 s. *Solid Analytic Geometry* (2)—Two lectures. Prerequisite, Math. 145 f or its equivalent.

General theory of quadric surfaces; the twisted cubic; line geometry; geometry on a sphere; cubic and quartic surfaces. (Alrich.)

MATH. 151 f. *Theory of Equations* (2)—Two lectures. Prerequisite, 142 f or its equivalent.

Complex numbers; fundamental theorem of algebra; equations of the third and fourth degree; algebraic solution of equations; finite groups; numerical solution of equations; criteria of irreducibility; cyclometric equations. (Lancaster.)

MATH. 152 s. *Introduction to Modern Algebra* (2)—Two lectures. Prerequisite, Math. 141 f and 142 s or their equivalent.

Vectors; matrices; linear dependence; quadratic forms; infinite groups. (Titt.)

MATH. 153 f. *Advanced Differential Equations* (2)—Two lectures. Prerequisite, Math. 144 or its equivalent.

Equations of the first order; linear equations with constant and variable coefficients; change of variables; singular solutions; solution in series; numerical integration; ordinary differential equations in three variables; partial differential equations. (Lancaster.)

MATH. 154 s. *Topics in Analysis* (2)—Two lectures. Prerequisite, Math. 153 f.

Theory of vibrations; Fourier series; calculus of variations; entropy; improper integrals. (Titt.)

MATH. 155 f. *Introduction to Projective Geometry* (2)—Two lectures. Prerequisite, Math. 145 f or its equivalent.

The theorems of Desargues and Pappus; cross-ratio and homography; projective theory of conics; projective interpretation and generalization of elementary geometry. (Dantzig.)

MATH. 156 s. *Introduction to Differential Geometry* (2)—Two lectures. Prerequisite, Math. 23 y.

Infinitesimal properties of plane curves; transformations; orthogonal trajectories; envelopes; roulettes and glisettes; curvilinear coordinates in the plane. (Dantzig.)

MATH. 157 y. *History of Modern Mathematics* (4)—Two lectures. Prerequisite, Math. 23 y, or its equivalent.

This course will begin with a comprehensive treatment of the history of mathematics during the seventeenth and eighteenth centuries; the development of mathematics during the nineteenth and our own centuries will be treated topically, with special emphasis on such topics as projective and non-Euclidean geometry, theory of aggregates, vector analysis, theory of groups, theory of numbers, etc. (Dantzig.)

For Graduates

MATH. 221 f. *Theory of Functions of a Complex Variable* (2)—Two lectures. Prerequisites, Math. 143 f and 144 s or their equivalent.

Cauchy-Riemann equations; power series and infinite products; conformal mapping; the Cauchy integral theorem; residues and periods; analytic continuation. (Martin.)

MATH. 222 f. *Theory of Functions of a Real Variable* (2)—Two lectures. Prerequisites, Math. 143 f and 144 s or their equivalent.

Real numbers; continuous functions; implicit functions; Riemannian integration; real analytic functions. (Martin.)

MATH. 223 s. *Vector Analysis* (2)—Two lectures. Prerequisite, Math. 152 s or its equivalent.

Scalars, vectors, matrices and determinants; transformations; linear dependence, canonical forms; elementary divisors; applications to geometry and mechanics. (Alrich.)

MATH. 225 f. *Projective Geometry* (2)—Two lectures. Prerequisite, Math. 155 f or its equivalent.

Axiomatic development of geometry; fundamental theorems; projective equivalence; the group of collineations in the plane and in space; non-Euclidean geometries. (Dantzig.)

MATH. 226 s. *Differential Geometry* (2)—Two lectures. Prerequisite, Math. 156 s or its equivalent.

Principles of vector analysis; skew curves; kinematical applications; geometry on a surface; general theory of surfaces; curvature and space structure; Riemannian geometries. (Dantzig.)

MATH. 227 s. *Infinite Processes* (2)—Two lectures. Prerequisites, Math. 222 f or its equivalent.

Convergence of infinite series and products; Fourier series; orthogonal functions, asymptotic series. (Lancaster.)

MATH. 228 s. *Elliptic Functions* (2)—Two lectures. Prerequisite, Math. 221 f or its equivalent.

The theories of Legendre and Jacoby; the Weierstrass theory; doubly periodic functions; elliptic integrals; applications to algebra, geometry, and mechanics. (Martin.)

MATH. 231 s. *Partial Differential Equations with Applications to Mathematical Physics* (2)—Two lectures. Prerequisites, Math. 143 f, Math. 144 s, and Math. 153 f, or their equivalent.

Partial differential equations of the first and second order; linear equations; total differential equations; equations of the Monge-Ampere type; the Laplace equation; harmonics; applications to electricity, heat, elasticity, and hydrodynamics; potential theory. (Titt.)

MATH. 235 s. *Modern Algebra* (2)—Two lectures. Prerequisite, Math. 152 s or its equivalent.

Sets; classes; groups; isomorphism; rings; fields; Galois theory; ordered and well-ordered sets; ideals; linear algebras. (Dantzig.)

MATH. 240 y. *Graduate Seminar* (2)—One session.

Required of all graduate students. Intended as a clearing house of problems arising in the graduate courses. Reports on progress of dissertations and a critical discussion of results achieved.

(Staff.)

SELECTED TOPICS COURSES

In addition to the preceding, a number of courses will be offered from time to time by the various members of the staff in their respective fields of specialization. These courses are intended primarily for candidates for an advanced degree, and aim at developing materials for dissertations; they will, however, be open to any qualified student.

MATH. 242. *Selected Topics in Modern Geometry.* (Dantzig, Alrich.)

MATH. 243. *Selected Topics in Modern Analysis.* (Martin, Lancaster.)

MATH. 244. *Selected Topics in Dynamics.* (Martin.)

MATH. 245. *Selected Topics in Mathematical Physics.* (Titt.)

MATH. 246. *Selected Topics in Applied Mathematics.* (Yates.)

MILITARY SCIENCE AND TACTICS

PROFESSOR OF MILITARY SCIENCE AND TACTICS, LIEUTENANT COLONEL JOSEPH D. PATCH, U. S. A.; ASSISTANT PROFESSORS MAJOR CHARLES H. JONES, MAJOR S. D. HERVEY, CAPTAIN WILLIAM H. MAGLIN; WARRANT OFFICER WILLIAM H. MCMANUS; SERGEANT GEORGE J. UHRINAK.

*BASIC COURSE

Freshman Year—1 lecture; 2 drill periods.

M. I. 1 y. *Basic R. O. T. C.* (2).

The following subjects are covered:

First Semester

National Defense Act, including basic organization and the R. O. T. C.; military courtesy, command and leadership; military hygiene and first aid; marksmanship.

Second Semester

Physical drill, command and leadership, automatic rifle; military history and policy; military hygiene and first aid; citizenship; international situation.

Sophomore Year—1 lecture; 2 drill periods.

M. I. 2 y. *Basic R. O. T. C.* (4).

The following subjects are covered:

First Semester

Scouting and patrolling, mapreading, military history, leadership.

Second Semester

Military history, musketry, combat principles of the squad and section, leadership.

**ADVANCED COURSE

Junior Year—3 lectures; 2 drill periods.

M. I. 101 y. *Advanced R. O. T. C.* (6).

The following subjects are covered:

First Semester

Aerial photograph reading, machine guns, howitzer weapons, combat principles, leadership.

* Required of qualified students.

** Elective for qualified students.

Second Semester

Combat principles of rifle, machine gun, and howitzer platoons, pistol marksmanship, review of rifle marksmanship, leadership.

Senior Year—3 lectures; 2 drill periods.

M. I. 102 y. *Advanced R. O. T. C.* (6).

The following subjects are covered:

First Semester

Combat principles (including organization of larger combat units), command and leadership, weapons (tanks), chemical agents and uses, mechanization.

Second Semester

Company administration, military history and policy, military law, Officers' Reserve Corps regulations.

MODERN LANGUAGES

PROFESSOR FALLS; ASSOCIATE PROFESSOR KRAMER; ASSISTANT PROFESSORS DARBY, PRAHL; MISS WILCOX, MR. SCHWEIZER, MR. LIOTARD, MR. EVANGELIST, MR. PATTON.

All students whose major is in Modern Languages are required to take *Greek Literature in English Translations* (Comp. Lit. 101 f), *Latin Literature in English Translations* (Comp. Lit. 102 s), and a *Conference Course in Reading* (French, German, Spanish 120). The following courses are recommended: *General European History* (H. 1 y), *Introduction to Philosophy* (Phil. 1 f or 1 s), *The Old Testament as Literature* (Comp. Lit. 104 s), *Prose and Poetry of the Romantic Age* (Eng. 113 f and 114 s), *Romanticism in France and Germany* (Comp. Lit. 105 f and 106 s). For a major in German, *Anglo-Saxon and Beowulf* (Eng. 102 f and 103 s).

Specific requirements for the majors in the different languages are as follows: French—French 9 y, 10 y, 15 y, 120, and two additional year-courses in literature in the 100 group; German—10 y, 15 y, 120, and two additional year-courses in the 100 group; Spanish—Spanish 6 y, 15 y, 120, and two additional year-courses in the 100 group.

A. French

FRENCH 1 y. *Elementary French* (6)—Three lectures. Students who offer two units in French for entrance, but whose preparation is not adequate for second-year French, receive half credit for this course.

Elements of grammar; composition; pronunciation and translation.

FRENCH 2 s. *Elementary Conversation* (1)—One lecture. Prerequisite, the grade of A or B in the first semester of French 1 y. Students who are interested in French, and who have done well in the first semester of the elementary year-course, should take this course in conjunction with the second semester of French 1 y.

FRENCH 3 y. *Second-Year French* (6)—Three lectures. Prerequisite, French 1 y or equivalent.

Study of grammar continued; composition; conversation; translation of narrative and technical prose. In the organization of classes, certain sections are set aside for the reading of scientific French texts.

FRENCH 4 f. *Grammar Review* (2)—Two lectures. Designed particularly for students who enter with three or more units in French, who expect to do advanced work in the French language or literature, but who are not prepared to take French 10 y. Properly qualified students may elect this course at the same time as French 6 y, 7 y, 8 y, 15 y.

FRENCH 5 s. *Intermediate Conversation* (2)—Two lectures. Prerequisite, the grade of A or B in the first semester of French 3 y. Students who expect to take advanced work in French literature, and who have completed the first semester of French 3 y with the grade of A or B, should take this course in conjunction with the second semester of French 3 y.

Practical exercises in conversation; discussion in French of simple texts in prose and verse.

FRENCH 6 y. *The Development of the French Novel* (6)—Three lectures.

Introductory study of the history and growth of the novel in French literature; of the lives, works, and influence of important novelists. Reports.

FRENCH 7 y. *The Development of the French Drama* (6)—Three lectures.

Introductory study of the French drama of the seventeenth, eighteenth, and nineteenth centuries. Translation and collateral reading. Reports. (Not given in 1938-1939.)

FRENCH 8 y. *The Development of the Short Story in French* (6)—Three lectures.

A study of the short story in French literature; reading and translation of representative examples. (Not given in 1938-1939.)

FRENCH 9 y. *French Phonetics* (2)—One lecture. Prerequisite, French 1 y.

FRENCH 10 y. *Intermediate Grammar and Composition* (6)—Three lectures. Prerequisite, French 3 y.

(French 9 y and 10 y are required of students preparing to teach French.)

FRENCH 15 y. *Introduction to French Literature* (6)—Three lectures. Prerequisite, French 3 y.

An elementary survey introducing the student to the chief authors and movements in French literature. This course is given in French.

For Advanced Undergraduates and Graduates

A more intensive survey of modern French literature is offered by means of rotating courses roughly divided by centuries.

FRENCH 102 y. *French Literature of the 17th Century* (4)—Two lectures. (Wilcox.)

FRENCH 103 y. *French Literature of the 18th Century* (4)—Two lectures. (Not given in 1938-1939.) (Falls.)

FRENCH 104 y. *French Literature of the 19th Century* (4)—Two lectures. (Not given in 1938-1939.) (Wilcox.)

FRENCH 105 y. *French Literature of the 20th Century* (4)—Two lectures. (Falls.)

FRENCH 110 y. *Advanced Composition* (6)—Three lectures. Prerequisite, French 10 y.

(This course is required of students preparing to teach French.) (Falls.)

FRENCH 120. *Conference Course in Reading* (credits allowed: majors, 4 semester hours; minors, 2 semester hours.)

A two-year course open to majors and minors in French. It proposes: (1) to fix the attention of the student upon his field of concentration as a whole rather than upon the detailed knowledge of the subject-matter of such courses as he has taken in the field; (2) to develop in the student the ability to read independently. Conferences with qualified members of the department take the place of formal lectures. This course prepares majors and minors in French for the comprehensive examination in modern French literature at the end of the senior year.

Attention is also called to Comparative Literature 105 f, *Romanticism in France*.

For Graduates

FRENCH 201 y. *Research* (2-4)—Credits determined by work accomplished. (Staff.)

FRENCH 202 y. *Diderot and the Encyclopaedists* (4)—Two lectures. (Not given in 1938-1939.) (Falls.)

FRENCH 203 y. *Aspects and Conceptions of Nature in French Literature of the 18th Century* (4)—Two lectures. (Not given in 1938-1939.) (Falls.)

FRENCH 204 y. *Georges Duhamel, Poet, Dramatist, Novelist* (4)—Two lectures. (Falls.)

FRENCH 205 y. *French Literature of the Middle Ages and the Renaissance* (4)—Two lectures. (Not given in 1938-1939.) (Darby.)

FRENCH 210 y. *Seminar* (2-4)—One meeting weekly. (Required of all graduate students in French.)

B. German

GERMAN 1 y. *Elementary German* (6)—Three lectures. Students who offer two units in German for entrance, but whose preparation is not adequate for second-year German, receive half credit for this course.

Elements of grammar; composition; pronunciation and translation.

GERMAN 2 s. *Elementary Conversation* (1)—One lecture. Prerequisite, the grade of A or B in the first semester of German 1 y. Students who are interested in German, and who have done well in the first semester of the elementary year-course, should take this course in conjunction with the second semester of German 1 y.

GERMAN 3 y. *Second-Year German* (6)—Three lectures. Prerequisite, German 1 y or equivalent.

Reading of narrative and technical prose, grammar review and oral and written practice. In the organization of classes, certain sections are set aside for the reading of scientific German texts.

GERMAN 4 f. *Grammar Review* (2)—Two lectures. Designed particularly for students who enter with three or more units in German and who expect to do advanced work in the German language or literature, but who are not prepared to take German 10 y. Properly qualified students may elect this course at the same time as German 6 f or 8 f.

GERMAN 5 s. *Intermediate Conversation* (2)—Two lectures. Prerequisite, the grade of A or B in the first semester of German 3 y. Students who expect to take advanced work in German literature, and who have completed the first semester of German 3 y with the grade of A or B, should take this course in conjunction with the second semester of German 3 y.

Practical exercises in conversation; discussion in German of simple texts in prose and verse.

GERMAN 6 f. *Advanced German* (3)—Three lectures. Prerequisite, German 3 y or equivalent.

Rapid reading of novels and short stories from recent German literature. (Not given in 1938-1939.)

GERMAN 7 s. *Advanced German* (3)—Three lectures.
Continuation of German 6 f. (Not given in 1938-1939.)

GERMAN 8 f. *Advanced German* (3)—Three lectures. Prerequisite, German 3 y or equivalent.

Rapid reading of dramas from recent German literature. This course alternates with German 6 f. (Not given in 1938-1939.)

GERMAN 9 s. *Advanced German* (3)—Three lectures.
Continuation of German 8 f. (Not given in 1938-1939.)

GERMAN 10 y. *German Grammar and Composition* (4)—Two lectures. Prerequisite, German 3 y.

A thorough study of the more detailed points of German grammar with ample practice in composition work. (This course is required of students preparing to teach German.)

GERMAN 15 y. *Introduction to German Literature* (6)—Three lectures. Prerequisite, German 3 y or equivalent.

An elementary survey of the history of German literature; a study of representative authors and works.

For Advanced Undergraduates and Graduates

GERMAN 101 f. *German Literature of the 18th Century* (3)—Three lectures. (Prah.)

The earlier classical literature.

GERMAN 102 s. *German Literature of the 18th Century* (3)—Three lectures. (Prah.)

The later classical literature.

GERMAN 103 f. *German Literature of the 19th Century* (3)—Three lectures. (Prah.)

Romanticism and Young Germany. (Not given in 1938-1939.)

GERMAN 104 s. *German Literature of the 19th Century* (3)—Three lectures. (Prah.)

The literature of the Empire. (Not given in 1938-1939.)

GERMAN 105 f. *Contemporary German Literature* (3)—Three lectures. (Prah.)

A study of the lives, works, and influence of outstanding authors of the present. (Not given in 1938-1939.)

GERMAN 106 s. *Contemporary German Literature* (3)—Three lectures. (Prah.)

Continuation of German 105 f. (Not given in 1938-1939.)

GERMAN 120. *Conference Course in Reading* (credits allowed: majors, 4 semester hours; minors, 2 semester hours).
A two-year course open to majors and minors in German. It proposes: (1) to fix the attention of the student upon his field of concentration as a whole rather than upon the detailed knowledge of the subject-matter of such courses as he has taken in the field; (2) to develop in the student the ability to read independently. Conferences with qualified members of the department take the place of formal lectures. This course prepares majors and minors in German for the comprehensive examination in modern German literature at the end of the senior year.

Attention is also called to Comparative Literature 106 s, *Romanticism in Germany*, and Comparative Literature 107 f, *The Faust Legend in English and German Literature*.

For Graduates

GERMAN 201 y. *Research* (2-4)—Credits determined by work accomplished. (Staff.)

GERMAN 202 y. *The Modern German Drama* (4)—Two lectures.

Study of the naturalistic, neo-romantic, and expressionistic drama against the background of Ibsen and other international figures. (Not given in 1938-1939.) (Prah.)

GERMAN 203 y. *Schiller* (4)—Two lectures.

Study of the life and works of Schiller, with emphasis on the history of his dramas. (Prahl.)

GERMAN 210 y. *Seminar* (2-4)—One meeting weekly. (Required of all graduate students in German.)

C. Italian

ITALIAN 1 y. *Elementary Italian* (6)—Three lectures. Recommended particularly for advanced students in French and Spanish. Not open to freshmen and sophomores. (Not to be counted in fulfillment of the general language requirements.)

Drill in pronunciation and in the elements of the language. Reading of short stories from modern authors.

D. Spanish

SPANISH 1 y. *Elementary Spanish* (6)—Three lectures. Students who offer two units in Spanish for entrance, but whose preparation is not adequate for second-year Spanish, receive half credit for this course.

Elements of grammar; composition; pronunciation and translation.

SPANISH 2 s. *Elementary Conversation* (1)—One lecture. Prerequisite, the grade of A or B in the first semester of Spanish 1 y. Students who are interested in Spanish, and who have done well in the first semester of the elementary year-course, should take this course in conjunction with the second semester of Spanish 1 y.

SPANISH 3 y. *Second-Year Spanish* (6)—Three lectures. Prerequisite, Spanish 1 y or equivalent.

Reading of narrative works and plays; grammar review; oral and written practice.

SPANISH 4 f. *Grammar Review* (2)—Two lectures. Designed particularly for students who enter with three or more units in Spanish, who expect to do advanced work in the Spanish language or literature, but who are not prepared to take Spanish 6 y. Properly qualified students may elect this course at the same time as Spanish 15 y.

SPANISH 5 s. *Intermediate Conversation* (2)—Two lectures. Prerequisite, the grade of A or B in the first semester of Spanish 3 y. Students who expect to take advanced work in Spanish literature, and who have completed the first semester of Spanish 3 y with the grade of A or B, should take this course in conjunction with the second semester of Spanish 3 y.

Practical exercises in conversation; discussion in Spanish of simple texts in prose and verse.

SPANISH 6 y. *Advanced Composition and Conversation* (4)—Two lectures. Prerequisite, Spanish 3 y or equivalent.

Introduction to phonetics; oral and written composition.

(This course is required of students preparing to teach Spanish.)

SPANISH 15 y. *Introduction to Spanish Literature* (6)—Three lectures. An elementary survey introducing the student to the chief authors and movements in Spanish literature.

For Advanced Undergraduates and Graduates

SPANISH 103 f. *The Spanish Drama* (3)—Three lectures. The drama of the Golden Age. (Not given in 1938-1939.) (Darby.)

SPANISH 104 s. *The Spanish Drama* (3)—Three lectures. Continuation of Spanish 103 f. The drama since Calderon. (Not given in 1938-1939.) (Darby.)

SPANISH 105 y. *Cervantes* (6)—Three lectures. The life and times of Cervantes; principal prose works. (Darby.)

SPANISH 107 f. *The Spanish Novel* (3)—Three lectures. Classic novels and short stories of the Golden Age and of the eighteenth century. (Not given in 1938-1939.) (Darby.)

SPANISH 108 s. *The Spanish Novel* (3)—Three lectures. Continuation of Spanish 107 f. A study of the development of the modern novel. (Not given in 1938-1939.) (Darby.)

SPANISH 120. *Conference Course in Reading* (credits allowed: majors, 4 semester hours; minors, 2 semester hours).

A two-year course open to majors and minors in Spanish. It proposes: (1) to fix the attention of the student upon his field of concentration as a whole rather than upon the detailed knowledge of the subject-matter of such courses as he has taken in the field; (2) to develop in the student the ability to read independently. Conferences with qualified members of the department take the place of formal lectures. This course prepares majors and minors in Spanish for the comprehensive examination in modern Spanish literature at the end of the senior year.

For Graduates

SPANISH 201 y. *Research* (2-4)—Credits determined by work accomplished. (Staff.)

SPANISH 202 y. *The Golden Age in Spanish Literature* (6)—Three lectures.

Detailed study of the classical authors. (Not given in 1938-1939.) (Darby.)

SPANISH 203 f. *Spanish Poetry* (3)—Three lectures.

The epic, the ballad and popular poetry, early lyrics, poetry of the Golden Age. (Darby.)

SPANISH 204 s. *Spanish Poetry* (3)—Three lectures.

Continuation of Spanish 203 f. Poetry of the 18th, 19th, and 20th centuries. (Darby.)

SPANISH 210 y. *Seminar* (2-4)—One meeting weekly. (Required of all graduate students in Spanish.)

MUSIC

MR. RANDALL, MRS. BLAISDELL.

MUSIC 1 y. *Music Appreciation* (2)—One lecture.

A study of all types of classical music with a view to developing the ability to listen and enjoy. Lecture recitals will be presented with the aid of performers and records. A study of the orchestra and the instruments that it employs. A study of musical form. The development of the opera and oratorio. Great singers of the past and present. Well-known musicians occasionally appear as guest lecturers and performers.

MUSIC 2 y. *History of Music* (2)—One lecture.

A comprehensive course in the history of music covering the development of all forms of music from ancient times through the renaissance; the classic and the romantic schools; and the more modern composers.

MUSIC 3 y. *Chorus* (1).

This course is offered for those interested in part-singing. After voice trials, students who have ability to read and sing music of the grade of easy songs are admitted. Members of the Women's Chorus and the Men's Glee Club indicated hereafter are combined at times for mixed chorus singing.

(A) Women's Chorus. Study of part-singing for women's voices. Credit is awarded for each year's regular attendance at weekly rehearsals and participation in public performances of the chorus.

(B) Men's Glee Club. Study of part-singing for men's voices. Credit is awarded for each year's regular attendance at weekly rehearsals and participation in public performances of the Glee Club.

MUSIC 4 y. *Orchestra* (1).

The purpose of the University Orchestra is study of the classics. Works of the standard symphonists from Haydn and Mozart to Wagner and the modern composers are used. Students who play orchestral instruments are eligible for membership. At least one rehearsal of two hours duration is held each week, and all players are expected to take part in public performances.

MUSIC 5 y. *Harmony* (4)—Two lectures.

This course includes a study of major and minor scales, intervals, harmonic progressions, primary and secondary triads in root position and first and second inversions, the dominant seventh chord in its root position and inversions.

The above theory is taught to give the student a basis for ear training, dictation, melody writing, and melody harmonization.

PHILOSOPHY

PROFESSOR MARTI.

PHIL. 1 f or s. *Introduction to Philosophy* (3)—Three lectures.

Not open to freshmen.

A study of the development of philosophical thought from the early Greeks to the modern era.

PHIL. 11 s. *Modern European Philosophy* (3)—Three lectures. Prerequisite, Phil. 1 f or s.

A continuation of Phil. 1 f or s. Alternates with Phil. 12 s.

PHIL. 12 s. *American Philosophy* (3)—Three lectures. Prerequisite, Phil. 1 f or s.

A continuation of Phil. 1 f or s. Alternates with Phil. 11 s. (Not given in 1938-1939.)

PHIL. 21 f. *Aesthetics* (3)—Three lectures. Prerequisite, Phil. 1 f or s, and prerequisite or, by special permission, corequisite: Art 1 f or s, or Music 1 y or 2 y, or a 100 course in literature.

An historical and systematic introduction to the philosophy of art. Alternates with Phil. 22 f and 23 f. (Not given in 1938-1939.)

PHIL. 22 f. *Logic* (3)—Three lectures. Prerequisite, Phil. 1 f or s, and satisfactory preparation in mathematics or science.

An introductory course, designed especially for science majors. Alternates with Phil. 21 f and 23 f.

PHIL. 23 f. *Ethics* (3)—Three lectures. Prerequisite, Phil. 1 f or s.

A study of the implications of problems of the good life. Alternates with Phil. 21 f and 22 f. (Not given in 1938-1939.)

PHIL. 31 f. *Readings in Philosophy* (1)—One hour of discussion. Prerequisite, Phil. 1 f or s.

One or several relatively easy philosophical works will be read, and discussed in class. The topic will be changed, from semester to semester, although the same work may be studied again, after three or four semesters. Not more than two credits allowed to any one student.

PHIL. 32 s. *Readings in Philosophy* (1)—One hour of discussion. Prerequisite, Phil. 1 f or s. Similar to Phil. 31 f. Phil. 31 f not a prerequisite.

PHIL. 33 f. *Readings in Philosophy* (1)—One hour of discussion. Prerequisite, Phil. 1 f or s. (Not given in 1938-1939.)

PHIL. 34 s. *Readings in Philosophy* (1)—One hour of discussion. Prerequisite, Phil. 1 f or s. (Not given in 1938-1939.)

For Advanced Undergraduates and Graduates

PHIL. 101 f. *Systems of Philosophy: KANT* (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor.

The system of one philosopher, or the development of one movement, will be studied throughout the semester. The topic will be changed, from semester to semester, although, after three or four semesters, the same system may be chosen again. (Marti.)

PHIL. 102 s. *Systems of Philosophy: FICHTE* (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor.

Continuation of Phil. 101 f. (Marti.)

PHIL. 103 f. *Systems of Philosophy* (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor.

Similar to Phil. 101 f. (Not given in 1938-1939.) (Marti.)

PHIL. 104 s. *Systems of Philosophy* (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor.

Similar to Phil. 101 f. (Not given in 1938-1939.) (Marti.)

PHYSICS

PROFESSOR EICHLIN; DR. DICKINSON, MR. SMITH.

PHYS. 1 y. *General Physics* (8)—Three lectures; one laboratory. Required of students in the premedical and pre dental curricula. This course satisfies the minimum requirement for a science major. Prerequisites, Math. 8 f or 11 f and Math. 10 s, or Math. 21 f and 22 s.

A study of the physical phenomena in mechanics, heat, sound, magnetism, electricity, and light. Fee, \$5.00 per semester.

PHYS. 2 y. *General Physics* (10)—Four lectures; one laboratory. Required of all students in the engineering curricula, and of those with chemistry, mathematics, and physics majors. Elective for other students. Prerequisites, Math. 21 f, Math. 22 s, and Math. 23 y. The last may be taken concurrently. Fee, \$5.00 per semester.

A study of mechanics, heat, sound, magnetism, electricity, and light.

PHYS. 3 y. *Elementary Physics* (6)—Three lectures. This introductory course is designed to meet the need of students who desire to become acquainted with the fundamental principles of physics. Instruction will be given by lectures, recitations, and experimental demonstrations. This course, with such additional work as may be deemed necessary by the Department, will be accepted as the equivalent of Phys. 1 y. Fee, \$3.00 per semester.

For Advanced Undergraduates and Graduates

PHYS. 101 f. *Precision of Measurements* (3)—Three lectures. Prerequisites, Phys. 1 y or 2 y, and Math. 23 y.

A discussion of the principles underlying the treatment of experimental data, as to precision of observations, errors, interpolation, curve analysis, etc., with emphasis on the planning of investigations involving measurements. The course is intended as an introduction to quantitative experimental work. (Eichlin.)

PHYS. 102 s. *Quantitative Physical Measurements* (3)—Two lectures; one laboratory. Prerequisite, Phys. 101 f.

This course, supplementing Phys. 101 f, is designed to familiarize the student with the manipulation of various types of apparatus used in experimentation in physical problems, and the adaptation and analysis of data so obtained. Fee, \$5.00. (Eichlin.)

PHYS. 103 y. *Advanced Physics* (6) — Three lectures. Prerequisite, Phys. 1 y.

This course, supplementing Phys. 1 y, is an advanced study of physical phenomena in optics, spectroscopy, conduction of electricity through gases, photoelectricity, etc., with a comprehensive review of basic principles involved. It is intended to familiarize the student in a general survey with some of the recent developments in physics. (Smith.)

PHYS. 104 y. *Advanced Experiments* (6)—One lecture; two laboratories. Prerequisite, Phys. 103 y.

This course, supplementing Phys. 1 y, is intended to provide the student with experience in experimental physics. (Not given in 1938-1939.) Fee, \$5.00 per semester. (Dickinson.)

PHYS. 105 f. *Heat and Thermodynamics* (3)—Two lectures; one laboratory. Prerequisite, Phys. 2 y.

The classical phenomena of heat and radiation phenomena are developed on the basis of the kinetic molecular theory and the quantum theory. The first and second laws of thermodynamics are applied to physical processes. Fee, \$5.00. (Dickinson.)

PHYS. 106 s. *Theoretical Mechanics* (3)—Three lectures. Prerequisite, Phys. 2 y.

An analytical treatment of the fundamental principles of kinematics and dynamics is presented, with problems and laboratory exercises to illustrate these principles. The use of generalized coordinates is illustrated. The equations of La Grange are applied to selected topics in the field of dynamics. (Dickinson.)

PHYS. 107 f. *Optics* (3)—Two lectures; one laboratory. Prerequisite, Phys. 2 y.

A study is made of selected topics in the refraction, reflection, interference, diffraction, and polarization of light. The principles are employed

on a detailed study of optical systems of telescope, microscope, spectro-
scope, and interferometer. Fee, \$5.00. (Dickinson.)

PHYS. 108 s. *Electricity and Magnetism* (3)—Two lectures; one lab-
oratory. Prerequisite, Phys. 2 y.

A study is made of elementary and mathematical theory of electrostatics,
magnetostatics, magnetism, electrical currents, etc.

An experimental study of electrical instruments and their use in physical
measurements is included. Fee, \$5.00. (Dickinson.)

PHYS. 109 y. *Electric Discharge* (6)—Two lectures; one laboratory.
Prerequisites, at least two courses of the 105 f-108 s group.

The discrete nature of matter, electricity, and radiation is emphasized
from an empirical point of view. The determination of the fundamental
electronic and molecular constants is treated in detail. The process of
electrical discharge through gas and vacuum is ramified to include discus-
sion of radioactivity, photoelectricity, thermionics, and atomic structure.
Fee, \$5.00 per semester. (Dickinson.)

Graduates

PHYS. 201 f. *Atomic Structure* (3)—Three lectures.

Development of theories on the structure of the atom through discussion
of optical and X-ray spectra, atomic models as applied to the periodic table,
and related topics. (Eichlin.)

PHYS. 202 s. *Advanced Spectroscopy* (3)—Three lectures. Prerequisite,
Phys. 201 f.

Continuation of Phys. 201 f. (Eichlin.)

PHYS. 203 f. *Quantum Theory* (3)—Three lectures.

Discussion of the application of the principles of the quantum theory to
black body radiation, spectroscopy, collision processes, valence, etc.
(Eichlin.)

PHYS. 204 s. *Nuclear Physics* (3)—Three lectures.

Discussion of the constitution of the nucleus, natural radioactivity dis-
integration processes, neutron, positron, nuclear energy states, artificial dis-
integration, etc. (Eichlin.)

PHYS. 205 f. *Fundamental Concepts of Modern Physics* (3)—Three lec-
tures.

Comprehensive survey of the history of physics; the electromagnetic
theory of radiation; interaction of radiation and matter; introduction to the
quantum mechanics. (Not given in 1938-1939.) (Eichlin.)

PHYS. 206 s. *Fundamental Concepts of Modern Physics* (3)—Three lec-
tures. Prerequisite, Phys. 205 f.

Continuation of Phys. 205 f. (Not given in 1938-1939.) (Eichlin.)

PHYS. 207 f. *Electrodynamics* (3)—Three lectures.

A mathematical study of electrostatics and electromagnetics with appli-
cations to diffraction, dispersion, electro- and magneto-optics. (Not given
in 1938-1939.) (Dickinson.)

PHYS. 208 s. *Physical Optics* (3)—Three lectures.

A mathematical study of the electromagnetic theory of light, with appli-
cations to interference, diffraction, dispersion, polarization. (Not given in
1938-1939.) (Dickinson.)

PHYS. 209 y. *Seminar* (2).

Presentation of reports and discussion of current developments in physics
and of original investigations on special problems. (Staff.)

PHYS. 210 y. *Research*.

The investigation of special problems in physics. (Staff.)

POLITICAL SCIENCE

PROFESSOR HOWARD; ASSOCIATE PROFESSOR STEINMEYER; LECTURERS
LASSON, LARSON; DR. BONE, DR. KLINE.

POL. SCI. 1 f or s. *American National Government* (3)—Three lectures.
Open to freshmen.

A study of the organization and functions of the national government
of the United States.

POL. SCI. 4 f or s. *State and Local Government* (3)—Three lectures.
Prerequisite, Pol. Sci. 1 f or s.

A study of the organization and functions of state and local government
in the United States, with special emphasis upon the Government of Mary-
land.

POL. SCI. 7 f. *Comparative Government* (2)—Two lectures. Prerequi-
site, Pol. Sci. 1 f or s.

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

POL. SCI. 8 s. *Comparative Government* (2)—Two lectures. Prerequisite,
Pol. Sci. 1 f or s.

A comparative study of the dictatorial governments of Europe, with
special emphasis upon Italy, Germany, and the U. S. S. R.

For Advanced Undergraduates and Graduates

POL. SCI. 101 f. *International Relations* (3)—Three lectures. Prerequi-
site, Pol. Sci. 1 f or s, or consent of instructor.

The course deals with the major factors underlying international rela-
tions; the influence of geography, climate, nationalism, imperialism, etc.
(Not given in 1938-1939.) (Steinmeyer.)

POL. SCI. 102 s. *International Law* (3)—Three lectures. Prerequisite, Pol. Sci. 1 f or s.

A study of the principles governing international intercourse in time of peace and war, as illustrated in texts and cases. (Steinmeyer.)

POL. SCI. 103 f. *International Organization* (3)—Three lectures. Prerequisite, Pol. Sci. 1 f or s, or consent of instructor.

The course deals with the forms and functions of the various cooperative international organizations, with special reference to the League of Nations and the Permanent Court of International Justice. (Steinmeyer.)

POL. SCI. 104 s. *Recent Far Eastern Politics* (3)—Three lectures. Prerequisite, Pol. Sci. 1 f or s, or consent of instructor.

The background and interpretation of recent political events in the Far East and their influence on world politics. (Steinmeyer.)

POL. SCI. 105 f. *Problems of World Politics* (3)—Three lectures. Prerequisite, Pol. Sci. 1 f or s, or consent of instructor.

The course deals with governmental problems of an international character, such as causes of war, problems of neutrality, propaganda, etc. Students are required to report on readings from current literature. (Steinmeyer.)

POL. SCI. 106 s. *British Empire* (3)—Three lectures. Prerequisite, Pol. Sci. 7 f.

A survey of the constitutional development of the British Dominions, with particular attention to the present inter-imperial relationship. (Not given in 1938-1939.) (Steinmeyer.)

POL. SCI. 111 f. *Principles of Public Administration* (3)—Three lectures. Prerequisite, Pol. Sci. 4 f or s.

A functional study of public administration in the United States, with special emphasis upon organization and the relation of administration to the other branches of government. (Howard.)

POL. SCI. 112 s. *Problems of Public Administration* (3)—Three lectures. Prerequisite, Pol. Sci. 4 f or s.

A detailed study of selected current problems in the field of national and state government, with particular emphasis upon their administrative aspects. (Howard.)

POL. SCI. 113 f. *Public Personnel Administration* (3)—Three lectures. Prerequisite, Pol. Sci. 111 f, or consent of instructor.

A study of public personnel practices in the various jurisdictions of the United States and their comparison with practices in certain European countries. (Not given in 1938-1939.) (Howard.)

POL. SCI. 114 s. *Municipal Government and Administration* (3)—Three lectures. Prerequisite, Pol. Sci. 4 f or s.

A detailed study of selected problems of municipal government, such as housing, health, zoning, fire and police, recreation, and planning. Course includes a visit to Baltimore to observe the agencies of city government at work. (Bone.)

POL. SCI. 121 f. *Political Parties and Public Opinion* (3)—Three lectures. Prerequisite, Pol. Sci. 1 f or s.

A descriptive and critical examination of the party process in government: nominations and elections, party expenditures, political leadership, the management and conditioning of public opinion. (Bone.)

POL. SCI. 123 f. *Government and Business* (3)—Three lectures. Prerequisite, Pol. Sci. 1 f or s.

A general survey of governmental activities affecting business, with special emphasis upon recent developments; federal and state assistance to, and regulation of business in their historical and legal aspects; government ownership and operation. (Bone.)

POL. SCI. 124 s. *Legislatures and Legislation* (3)—Three lectures. Prerequisite, Pol. Sci. 4 f or s.

A comprehensive study of the legislative process, bicameralism, the committee system and the lobby, with special emphasis upon the legislature of Maryland. The course includes a visit to Washington to observe Congress at work. (Bone.)

POL. SCI. 125 f. *Constitutional Law* (3)—Three lectures. Prerequisite, Pol. Sci. 1 f or s.

A study of constitutional law in the United States as interpreted by the Supreme Court. Special attention is given to the American federal system, the amending clause, and the powers of President, Congress, and courts. (Lasson.)

POL. SCI. 128 s. *Administrative Law* (3)—Three lectures. Prerequisite, Pol. Sci. 1 f or s.

A study of the powers and procedure of administrative bodies; the validity of administrative regulations and the conclusiveness of administrative decisions. (Howard.)

POL. SCI. 131 f. *History of Political Theory* (3)—Three lectures. Prerequisite, Pol. Sci. 1 f or s, or consent of instructor.

A survey of the principal political theories set forth in the works of writers from Plato to Bentham. (Bone.)

POL. SCI. 132 s. *Recent Political Theory* (3)—Three lectures. Prerequisite, Pol. Sci. 1 f or s, or consent of instructor.

A study of recent political ideas, with special emphasis upon theories of democracy, socialism, communism, fascism, etc. (Larson.)

For Graduates

POL. SCI. 201 f or s. *Research in Political Science* (2-4)—Credit apportioned according to work accomplished. (Staff.)

POL. SCI. 203 y. *Seminar in Federal-State Relations* (4)—Reports on topics assigned for individual research in the field of recent federal-state relations. (Howard.)

POL. SCI. 205 y. *Seminar in Public Opinion* (4)—Reports on topics assigned for individual research in both the national and international aspects of public opinion and propaganda. (Staff.)

POULTRY HUSBANDRY

PROFESSORS JULL, BYERLY; ASSOCIATE PROFESSORS GWIN, QUIGLEY.

POULTRY 1 f. *Poultry Production* (3)—Two lectures and one two-hour laboratory.

This is a general course designed to acquaint the student with modern methods of poultry husbandry. Principles of incubation, brooding, egg production, marketing, and breed improvement are discussed.

POULTRY 1 s. *Poultry Management* (3)—Two lectures and one two-hour laboratory.

Material will be presented in this course to acquaint the student with modern methods of feeding, housing, sanitation, and organization necessary to the profitable operation of a poultry establishment.

POULTRY 2 f. *Poultry Biology* (1 or 2)—One lecture and one two-hour laboratory. Prerequisite, Poultry 1 f and s or equivalent.

The elementary anatomy of the fowl, selection for egg production and for breed standards are studied. Judging team for intercollegiate competitions are selected from members of this class.

For Advanced Undergraduates and Graduates

POULTRY 101 s. *Poultry Genetics* (2)—Three one-hour lectures, demonstration, quizz periods. Prerequisites, Poultry 2 f and G. and S. 101 f.

The inheritance of morphological and physiological characters of poultry are presented. Inheritance of factors related to egg and meat production and quality are stressed.

POULTRY 102 f. *Poultry Nutrition* (2)—One two-hour laboratory; one one-hour lecture, demonstration, quizz. Prerequisite, Poultry 1 f and 1 s.

The nutritive requirements of poultry and the nutrients which meet those requirements are presented. Feed cost of poultry production is emphasized.

POULTRY 103 s. *Poultry Disease Prevention* (3).

(See Veterinary Science V. S. 107 s.)

POULTRY 104 y. *Poultry Products* (4)—Two one-hour lecture, demonstration, quizz periods, weekly. Prerequisite, Poultry 1 f and 1 s.

This course includes material on egg and meat quality, commercial grades, relation of transportation and distribution to quality and methods of marketing, especially as related to quality.

POULTRY 105 s. *Preservation of Poultry Products* (3).

(See Bacteriology, Bact. 111 f.)

POULTRY 106 f. *Poultry Physiology* (1 or 2)—One two-hour laboratory; one lecture. Prerequisite, Poultry 101 s.

The physiology of development and incubation of the embryo, especially physiological pathology of the embryo in relation to hatchability, is presented. Physiology of growth and the influence of environmental factors on growth and development are considered.

POULTRY 107 y. *Poultry Industrial and Economic Problems* (4)—Two lectures weekly.

This course presents the relation of poultry to agriculture as a whole and its economic importance. Consumer prejudices and preferences, production, transportation, storage, and distribution problems are discussed. Trends in the industry, surpluses and their utilization, poultry by-products, and disease problems, are presented.

POULTRY 109 f and s. *Poultry Literature* (2-8).

Readings on individual topics are assigned. Oral and written reports required. Methods of analysis and presentation of scientific material are taught. Seniors are limited to one semester hour of such work each semester.

For Graduates

POULTRY 201 f. *Advanced Poultry Genetics* (3)—Three lectures. Prerequisite, Poultry 102 s or equivalent.

This course serves as a foundation for research in poultry genetics. Linkage, crossing-over, inheritance of sex, the expression of genes in development, inheritance of resistance to disease and the influence of the environment on the expression of genetic capacities are considered.

POULTRY 202 f. *Advanced Poultry Nutrition* (3)—Two lectures; one laboratory. Prerequisite, Poultry 102 f or equivalent.

Deficiency diseases of poultry are considered intensively. Vitamin, mineral, and protein deficiencies are given special consideration. Synthetic diets, metabolism, and the physiology of digestion, growth curves and their significance, and feed efficiency in growth and egg production are studied.

POULTRY 203 s. *Physiology of Reproduction of Poultry* (3)—One two-hour laboratory; two one-hour lectures.

The role of the endocrines in reproduction, especially with respect to egg production, is considered. Fertility, sexual maturity, broodiness, molting, egg formation, ovulation, deposition of egg envelopes and the physiology of oviposition are studied.

POULTRY 204 y. *Seminar* (2).

Reports of current researches by staff members, graduate students, and guest speakers are presented.

POULTRY 205 y. *Research in Poultry*.

Practical and fundamental research with poultry may be conducted under the supervision of staff members toward the requirements for the degrees M. S. and Ph. D.

PSYCHOLOGY

PROFESSORS JENKINS, SPROWLS; ASSISTANT PROFESSORS CLARK, ————; LECTURER HALL; DR. GHISELLI.

Psychological Testing Bureau

The staff of the Department of Psychology will maintain a bureau for vocational and educational guidance on the basis of adequately standardized psychological tests. The services of the bureau will be available without charge to students.

PSYCH. 1 f or s. *Introduction to Psychology* (3)—Two lectures and one discussion. Open to sophomores. Seniors receive but two credits.

A general introduction to typical fields in which psychologists are at work, including experimental psychology, differential psychology, social psychology, and mental hygiene.

PSYCH. 2 f. *Applied Psychology I* (3)—Two lectures and one discussion. Prerequisite, Psych. 1 f or s.

Application of controlled observation to practical psychological problems in methods of studying, in vocational orientation, and in the professions.

PSYCH. 3 s. *Applied Psychology II* (3)—Two lectures and one discussion. Prerequisite, Psych. 1 f or s.

Application of controlled observation to practical psychological problems in business and industry, including industrial selection, methods of production, advertising, selling, and market research.

PSYCH. 4 f. *Psychology for Students of Commerce* (3)—Two lectures and one discussion. Open only to students in economics or business administration.

Topics in applied psychology which relate to practical problems in business and industry, viewed from the standpoint of controlled observation. (Jenkins.)

PSYCH. 10 f or s. *Educational Psychology* (3)—Two lectures and one discussion. Open to juniors and seniors only. Required of students in Education.

Experimental studies of basic psychological problems encountered in education; individual differences, learning, motivation, transfer of training, etc.

For Advanced Undergraduates and Graduates

PSYCH. 110 f or s. *Advanced Educational Psychology* (3)—Two lectures and one discussion. Prerequisite, Psych. 10 f or s.

More advanced treatment of the solution of basic psychological problems in education by methods of controlled observation. (Sprowls.)

PSYCH. 120 f. *Psychology of Individual Differences* (3)—Two lectures and one discussion. Prerequisite, Psych. 1 f or s.

The occurrence, nature, and causes of psychological differences between individuals; methods of measuring these differences. (Clark.)

PSYCH. 121 s. *Experimental Social Psychology* (3)—Two lectures and one discussion. Prerequisite, Psych. 1 f or s.

Results of researches on behavior in social settings; experimental studies of the effects of group membership, of the family, and of current social forces. (Jenkins.)

PSYCH. 125 f. *Child Psychology* (3)—Two lectures and one discussion. Prerequisite, Psych. 1 f or s.

Experimental and statistical analyses of child behavior and of the early stages of human development. (———.)

PSYCH. 130 f or s. *Mental Hygiene* (3)—Two lectures and one clinic. Prerequisite, Psych. 1 f or s. Repeated in second term.

The more common deviations of personality; typical methods of adjustment. (Sprowls, Hall.)

PSYCH. 131 s. *Abnormal Psychology* (3)—Two lectures and one clinic. Prerequisite, Psych. 130 f or s.

The nature, occurrence, and causes of psychological abnormality with emphasis on the clinical rather than theoretical aspects. (Sprowls, Hall.)

PSYCH. 140 f. *Psychological Problems in Market Research* (3)—Two lectures and one discussion. Prerequisite, Psych. 3 s or permission of instructor.

Use of methods of controlled observation in determining public reactions to merchandise, and in measuring the psychological influences at work in particular markets. (Jenkins.)

PSYCH. 141 s. *Psychology in Advertising and Selling* (3)—Two lectures and one discussion. Prerequisite, Psych. 3 s or permission of instructor.

Experimental and statistical studies of psychological aspects of advertising, including attention, memory, comprehension, and motivation. (Ghiselli.)

PSYCH. 150 s. *Psychological Tests and Measurements* (3)—Two lectures and one laboratory period. Prerequisite, Psych. 120 f or permission of instructor.

Survey of typical psychological tests used in vocational orientation and in industry; actual practice in administering such tests. (———.)

PSYCH. 160 f. *Psychological Aspects of Industrial Production* (3)—Two lectures and one discussion. Prerequisite, Psych. 3 s or permission of instructor.

Controlled observation applied to psychological problems in industrial production, including psychological effects of conditions and methods of work. (Ghiselli.)

PSYCH. 161 s. *Psychology of Personnel* (3)—Two lectures and one discussion. Prerequisite, Psych. 3 s or permission of instructor.

Typical problems and methods of approach to psychological problems involved in vocational orientation, employee morale, and employee motivation. (Clark.)

PSYCH. 190 y. *Technics of Investigation in Psychology* (3)—Three periods of practice and discussion. Prerequisite, Psych. 150 s.

Actual practice in various methods of obtaining data and in treating these results for interpretations. Required of all majors. (Ghiselli.)

For Graduates

PSYCH. 200 y. *Research in Psychotechnology* (4-6)—Credit apportioned to work accomplished. (Staff.)

PSYCH. 210 y. *Seminar in Educational Psychology* (6)—An advanced course for teachers and prospective teachers. Open only to graduates.

Systematic approach to advanced problems in educational psychology based upon specific experimental contributions. (Sprowls.)

PSYCH. 240 y. *Seminar in Current Psychotechnological Problems* (6)—An advanced course for students pursuing major graduate studies.

A systematic analysis of recent contributions in selected psychotechnological fields. (Jenkins, Clark.)

PSYCH. 250 y. *Participation in Testing Clinic* (4-6)—Credit apportioned to work accomplished.

Actual practice in the administration and interpretation of psychological tests in the course of the routine operation of the testing clinic.

(———, Ghiselli.)

SOCIOLOGY

PROFESSOR MANNY; ASSOCIATE PROFESSOR JOSLYN; ASSISTANT PROFESSORS DODSON and CLOWES; DR. JACOBI, DR. WITTLER, MR. ASADORIAN.

SOC. SCI. 1 y. *Introduction to the Social Sciences* (6)—One lecture; two discussions. Open to freshmen and sophomores only.

This course serves as an orientation to advanced work in the social sciences. In the first semester, the basis, nature, and evolution of society and social institutions are studied. During the second semester the major problems of modern citizenship are analyzed in terms of knowledge contributed by economics, history, political science, psychology, and sociology.

SOC. 1 f or s. *Principles of Sociology* (3)—Three discussions. Prerequisite, sophomore standing.

An analysis of society and the social processes; the relation of the individual to the group; social products; social change.

SOC. 2 f or s. *Cultural Anthropology* (2)—Two lectures. Prerequisite, sophomore standing.

An analysis of the cultures of several primitive and modern societies, the purpose of which is to ascertain the nature of culture and the processes related to it. Museum exhibits will be utilized.

For Advanced Undergraduates and Graduates

SOC. 101 f. *Rural Sociology* (2)—Two lectures. Each graduate student will be required to prepare an extra term paper.

The structure and functions of rural communities, ancient and modern; the evolution of rural culture; rural institutions and their problems; the psychology of rural life; composition and characteristics of the rural population; relation of rural life to the major social processes; the social aspects of rural planning. (Dodson.)

SOC. 102 s. *Urban Sociology* (2)—Two lectures. Each graduate student will be required to prepare an extra term paper.

The origin and growth of cities; composition and characteristics of city populations; the nature and significance of urbanization; the social structure and functions of the city; urban personalities and groups; cultural conflicts arising out of the impact of urban environment. (Joslyn.)

SOC. 103 f. *Criminology and Penology* (3)—Three lectures. Prerequisite, Soc. Sci. 1 y or Soc. 1 f or s.

The nature and extent and cost of crime; causative factors; historical methods of dealing with criminals; apprehension of alleged criminals; the machinery of justice; penal institutions; other means of caring for convicted persons; the prevention of crime. (Jacobi.)

SOC. 104 s. *Social Interaction* (3)—Three discussions. Prerequisite, Soc. 1 f or s or Psych. 1 f or s.

The development of human nature and personality as products of social experience and interaction; the behavior of public audiences, groups, crowds, and mobs; the development and functioning of such psycho-social forces as imitation, styles, fads, leadership, public opinion, propaganda, nationalism, etc. (Manny.)

SOC. 105 f. *Social Organization* (2)—Two lectures. Prerequisite, Soc. 1 f or s.

Social groupings above the family in size as found among primitive and modern civilizations including neighborhoods, communities, special interest organizations, etc.; leadership and followership in organization activities; interorganizational conflict and cooperation. (Joslyn.)

Soc. 107 s. *Social Pathology* (3)—Three lectures. Prerequisite, Soc. 1 f or s, or consent of instructor.

Causative factors and social complications in individual and group pathological conditions; historic methods of dealing with dependent, defective, and delinquent classes. (Joslyn.)

Soc. 109 f. *Introduction to Social Work* (3)—Three lectures. Prerequisite, Soc. 107 s, or consent of instructor.

Brief historical review of the evolution of social work. Present day types of social work, institutional treatment, public and private agencies; the theory and technic of social case work; recent developments arising out of the depression; visits to representative social agencies. This course is intended primarily for persons intending to take advanced professional training in this field. (Joslyn.)

Soc. 110 s. *The Family* (2)—Two lectures. Prerequisite, Soc. 1 f or s.

Anthropological and historical backgrounds; biological, economic, psychological, and sociological bases of the family; the role of the family in personality development; family and society; family disorganization; family adjustment and social change. (Jacobi.)

Soc. 111 f. *Recent Social Thought* (2)—Two lectures. Prerequisites, Soc. 1 f or s, and consent of instructor. Intended mainly for sociology majors and minors.

Critical study of the leading schools of sociological thought in various countries since 1800. (Not offered in 1938-1939.) (Joslyn.)

Soc. 113 f. *Dynamics of Population* (2)—Two lectures. Prerequisite, Soc. 1 f or s, and G. and S. 111 f, or consent of instructor.

Causes of population growth and decline; major population migrations; population pressure and international problems; eugenic factors; statistical analyses of population trends in the United States. (Joslyn.)

Soc. 115 f. *The Village* (2)—Two lectures. Each graduate student will be required to prepare an extra term paper.

The evolution of the American village; present day social structure and functions of the village; an analysis of village population; the relationship of the village to urban and open-country areas; village planning. (Not offered in 1938-1939.) (Manny.)

Soc. 117 f. *The Sociology of Leisure* (2)—Two lectures. Prerequisite, Soc. 1 f or s. Each graduate student will be required to prepare an extra term paper.

This course deals with the sociological implications of leisure time and its uses, particularly in contemporary American life. The group aspects of recreation, including both commercialized and voluntary forms, community organization and planning for leisure-time activities, and related subjects are included. (Manny.)

Soc. 150 s. *Field Practice in Social Work* (2)—Open only to sociology majors upon consent of instructor. Enrollment restricted to available opportunities.

Supervised field work of various types undertaken during the summer months and suited to the needs of the individual students. (Manny.)

For Graduates

Soc. 201 f or s. *Sociological Research* (2-4)—Credit proportional to work accomplished.

Individual research projects involving either field work or analysis of compiled data. (Staff.)

Soc. 202 f or s. *Seminar in Sociological Theories* (2).

Assigned topics for discussion, dealing primarily with major sociological theories and problems. Designed for major students in the department of sociology. (Staff.)

SOCIAL WORK

NOTE: The following courses are offered in Baltimore under the joint auspices of the University of Maryland and the Baltimore Council of Social Agencies. Until further notice, enrollment in these courses is restricted to currently employed personnel of Maryland social agencies, and constitutes part of the "in-service" training program of these agencies. To obtain graduate credit from the University of Maryland, students must meet all requirements for admission to the Graduate School of the University. For further details, see special circular.

SOCIAL WORK 201 f or s. *Introduction to Social Casework I* (2)—Two lectures.

A discussion of case material, to give the student a general introduction to the basic processes of social casework, with special emphasis on the individual and his social situation.

SOCIAL WORK 202 s. *Social Casework II* (2)—Two lectures. Prerequisite, Social Work 201 or a similar introductory casework course.

A further analytical study of casework methods.

SOCIAL WORK 205 f or s. *Diagnosis as a Part of Casework Treatment* (2)—Two lectures. Prerequisite, completion of one year's work in a graduate school of social work, or its equivalent.

Case material illustrating various types of treatment will be used. Emphasis will be placed on a study of the early period in treatment, so that the student may develop an ability to establish and to understand the relationship with the client, to bring out and evaluate material important for diagnosis, and to meet the real and psychological needs of the client which must be met prior to diagnosis.

SOCIAL WORK 210 s. Casework Seminar (2)—Two discussions. Prerequisite, Social Work 205 or its equivalent and experience as a case worker.

Special emphasis will be placed on the understanding of the relationship between client and worker and its significance in treatment. Illustrative material will be selected from the participants' active cases.

SOCIAL WORK 220 f or s. A Dynamic Approach to Problems of Human Behavior (2)—Two lectures.

The course includes such topics as behavior, its motivation, factors modifying behavior, the structure of the personality and of the psyche, the modification of the personality in various developmental phases, the evidence of maladjustment, and an effort to relate maladjustments to experiences and personality patterns. Special reference will be made to the implications of the foregoing for social work in its theory and practice.

SOCIAL WORK 221 f. Social Psychiatric Treatment I (2)—Two lectures. Prerequisite, Social Work 220 or its equivalent, and permission of instructor.

Lectures and discussion of cases showing the application of psychiatry in social casework.

SOCIAL WORK 222 s. Social Psychiatric Treatment II (2)—Two lectures or discussions. Prerequisites, Social Work 220 or its equivalent, and current employment in a position calling for social psychiatric casework under trained supervision.

The course is concerned with the philosophy of psychiatric treatment in terms of limitations in the selection of clients; the difficulties presented by the clients; the difficulties arising from the workers' own attitudes; the therapeutics of talking; the problems of transference, the meaning of the phenomenon and treatment of it; the values and pitfalls of interpretation, and the approach to a conclusion of treatment. Sixteen hours are given to lectures, discussions, and illustrative case material, and 14 hours to study of cases supplied by the students from their current case loads.

SOCIAL WORK 230 f and 231 s. Medical Problems in Social Work I and II (2 per semester)—Two lectures.

These courses attempt to give the social worker a general understanding of the various medical problems, especially concerning chronic diseases, with which he will come in contact, such as malnutrition, tuberculosis, heart disease, syphilis, etc. Different conditions are taken up each semester, hence students may enter in either semester.

SOCIAL WORK 250 s. Public Welfare Administration (2)—Two lectures. Open to senior workers, supervisors, and executives who have had some formal training in social work.

The history, function, organization, and administration of local, state, and federal public welfare associations.

SOCIAL WORK 260 s. Principles of Social Group Work (2)—Two lectures.

In this course, the principles of progressive education and the implications from sociology, educational and clinical psychology are related to the task of group leadership. Aims and methods of group work are analyzed and evaluated in terms of actual field situations, and consideration is given to the relation of experiences in organized groups to the personality development and social adjustment of the participants.

SOCIAL WORK 270 f and 271 s. Labor Problems I and II (2 per semester)—Two lectures. Either semester may be taken separately.

These courses deal with the rise and development of the American labor movement. Treatment is given to the development of trade unionism in this country, with a brief comparison of the problems and objectives of American organized labor with those of labor groups in certain European countries. Special attention is given to wage rates, hours of labor, conditions of work, collective bargaining, and labor disputes. Legislation enacted to meet the problems of insecurity affecting labor, as well as to develop collective bargaining, will be treated in some detail. In this latter connection, consideration will be given to relief legislation, public works programs, the Social Security Act, the National Labor Relations Act, and proposed wages and hours legislation.

SPEECH

PROFESSOR RICHARDSON; ASSISTANT PROFESSORS EHRENSBERGER, PROVENSEN; MR. STRAUSBAUGH, MISS IVERSON.

SPEECH 1 y. Reading and Speaking (2)—One lecture.

The principles and techniques of oral expression, visible and audible; the preparation and delivery of short original speeches; impromptu speaking; reference readings, short reports, etc. Opportunities of speech clinic open to students. Required of all four year students. Each semester of this course will be repeated in the following semester.

SPEECH CLINIC—No credit.

Speech examinations; training in speech and voice; remedial work in minor speech difficulties. The work of the clinic is conducted in individual conferences and in small group meetings. Hours are arranged by consultation with the respective instructors.

SPEECH 2 y. Fundamentals of Speech (4)—Two lectures.

Studies in the bases and mechanics of speech. Emphasis on voice and diction. This course does not deal with public speaking exclusively; it is concerned with the whole speech function in private as well as public manifestations. It is given primarily for students who expect to do extensive work in speech. Any student electing this course may take it concurrently with or after completing Speech 1 y.

SPEECH 3 f. *Advanced Public Speaking* (2)—Two lectures.

Advanced work on basis of Speech 1 y, with special applications and adaptations. At each session of the class a special setting is given for the speeches—civil, social, and political organizations, etc., and organizations in the fields of the prospective vocations of the different students. When a student has finished this course he will have prepared and delivered one or more speeches which would be suitable and appropriate before any and all bodies that he would probably have occasion to address in after-life.

SPEECH 4 s. *Advanced Public Speaking* (2)—Two lectures.
Continuation of Speech 3 f.

SPEECH 5 f. *Oral Technical English* (2)—Two lectures.

The preparation and delivery of speeches, reports, etc., on both technical and general subjects. This course is especially adapted to the needs of engineering students. Required of all sophomore engineering students.

SPEECH 6 y. *Advanced Oral Technical English* (2)—One lecture.

This course is a continuation of Speech 5 f. Special emphasis upon engineering projects that fall within the student's own experience. Class discussion and criticism of all speeches and reports. Required of all junior engineering students.

SPEECH 7 y. *Advanced Oral Technical English* (2)—One lecture.

Advanced work on the basis of Speech 6 y. Work not confined to class room. Students are encouraged to deliver addresses before different bodies in the University and elsewhere. Senior seminar. For senior engineering students only.

SPEECH 9 f. *Extempore Speaking* (1)—One lecture.

Much emphasis on the selection and organization of material. Class exercises in speaking extemporaneously on assigned and selected subjects. Newspaper and magazine reading essential. Training in parliamentary law.

SPEECH 10 s. *Extempore Speaking* (1)—One lecture.
Continuation of Speech 9 f.

SPEECH 11 f. *Argumentation* (2)—Two lectures.

This course stresses not formal debating, but forms of persuasion which will be useful in business and professional life. It deals, to a great extent, with ways in which human beliefs and behavior may be influenced by logical discussion.

SPEECH 12 s. *Argumentation* (2)—Two lectures.
Continuation of Speech 11 f.

SPEECH 13 f. *Oral Reading* (1)—One lecture.

A study of the technique of vocal expression. The oral interpretation of literature. The practical training of students in the art of reading.

SPEECH 14 s. *Oral Reading* (1)—One lecture.
Continuation of Speech 13 f.

SPEECH 15 f. *Advanced Oral Reading* (1)—One lecture. Prerequisite, Speech 13 f or 14 s or the equivalent (if work is entirely satisfactory).
Advanced work in oral interpretation.

SPEECH 16 s. *Advanced Oral Reading* (1)—One lecture. Prerequisite, Speech 13 f or 14 s (if work is entirely satisfactory) or the equivalent.
Continuation of Speech 15 f.

For Advanced Undergraduates

SPEECH 101 y. *Radio Speaking* (2)—Two lectures.

A laboratory course dealing with the various aspects of modern broadcasting. Practice in program planning, continuity writing, announcing, news reporting, etc. Actual participation in broadcasting at station WJSV in Washington. This course is under the supervision of the Columbia Broadcasting System and the speech department. Admission by audition or consent of the instructor. Laboratory fee, \$2.00 per semester.

VETERINARY SCIENCE

PROFESSORS WELSH, BRUECKNER; ASSOCIATE PROFESSOR DEVOLT;
ASSISTANT PROFESSOR DAVIS.

For Advanced Undergraduates and Graduates

V. S. 101 f. *Comparative Anatomy and Physiology* (3)—Three lectures.
Structure of the animal body; abnormal as contrasted with normal; interrelationship between the various organs and parts as to structure and function; comparative study of herbivora, carnivora, and omnivora.

V. S. 102 s. *Animal Hygiene* (3)—Three lectures.
Care and management of domestic animals, with special reference to maintenance of health and resistance to disease; prevention and early recognition of abnormal conditions; general hygiene; sanitation; infections; epizootics; enzootics; internal and external parasites; first aid.

V. S. 103 f. *Hematology* (2)—Two laboratories.
Physiologic, pathologic, and diagnostic significance of changes in blood; taking samples; estimating the amount of hemoglobin; color index; numerical count of erythrocytes and leucocytes; study of red cells, and leucocytes in fresh and fixed stained preparations; differential count of leucocytes; vital staining; sources and development of the formed elements of blood; pathological forms and counts.

V. S. 104 s. *Urinalysis* (2)—Two laboratories. Junior year. Bact. 1 desirable.

Physiologic, pathologic, and diagnostic significance of kidney excretions, use of clinical methods including microscopic examination for casts, cells, blood, parasites, bacteria, and interpretation of results.

V. S. 105 f. *Pathological Technic* (3)—Three laboratories. Junior year. Bact. 1 desirable.

Examination of fresh material; fixation; decalcification; sectioning by free hand and freezing methods; celloidin and paraffin embedding and sectioning; general staining methods.

V. S. 106 s. *Pathological Technic* (continued) (2-5)—Laboratory course. Junior year. Prerequisite, consent of instructor.

Special methods in pathological investigations and laboratory procedures as applied to clinical diagnosis.

V. S. 107 f. *Poultry Hygiene* (2)—Two lectures. Senior year. Prerequisites, Bact. 1 f or s, and Poultry Physiology (Poultry 106 s).

Study of causes, symptoms, dissemination, life cycle, seasonal appearance, methods of control and eradication of various bacterial, protozoan and virus diseases of poultry, including internal and external parasites. (DeVolt and Davis.)

For Graduates

V. S. 201 f or s. *Animal Disease Problems* (2-6). Prerequisite, degree in veterinary medicine from an approved veterinary college or consent of instructor. Laboratory and field work by assignment.

V. S. 202 y. *Animal Disease Research* (2-6). Prerequisite, degree in veterinary medicine from an approved veterinary college or consent of instructor.

ZOOLOGY

PROFESSOR TRUITT; ASSOCIATE PROFESSOR PHILLIPS; ASSISTANT PROFESSOR BURHOE; DR. NEWCOMBE, DR. HARD, MR. ROBERTSON, MR. SHAY, MR. STULL, MISS WEBSTER.

ZOOL. 1 s. *General Zoology* (4)—Two lectures; two laboratories.

An introductory course, which is cultural and practical in its aim. It deals with the basic principles of animal development, structure relationships, and activities, a knowledge of which is valuable in developing an appreciation of the biological sciences. Typical invertebrates and a mammalian form are studied. Fee, \$5.00.

ZOOL. 2 f. *Elements of Zoology* (3)—Two lectures; one demonstration.

A course for students desiring a general knowledge of the principles underlying the growth, development, and behavior of animals, including man. Fee, \$3.00.

ZOOL. 3 f. *Invertebrate Morphology* (4)—Two lectures; two laboratories. Required of students whose major is zoology, and of premedical students.

This course consists in a study of the structure and relationships of selected invertebrate groups. Fee, \$5.00.

ZOOL. 4 s. *Comparative Vertebrate Morphology* (4)—Two lectures; two laboratories.

A comparative study of selected organ systems in certain vertebrate groups. Required of students whose major is zoology, and of premedical students. Fee, \$5.00.

ZOOL. 5 s. *Economic Zoology* (2)—Two lectures. Prerequisite, one course in zoology.

The content of this course centers around the problems of preservation, conservation, control, and development of economic wild life, with special reference to Maryland. The lectures are supplemented by assigned readings and reports.

Combined with Zool. 6s, this course should form a part of the basic training for professional foresters, game proctors, and conservationists.

ZOOL. 6 s. *Field Zoology* (3)—One lecture; two laboratories. Prerequisites, one course in zoology and one in botany.

This course consists in collecting and studying both land and aquatic forms of nearby woods, fields, and streams, with emphasis on the higher invertebrates and certain vertebrates, their breeding habits, environment, and modes of living. Intended for teachers of biology, and also for those who have a special interest in nature study and outdoor life. Fee, \$5.00.

ZOOL. 12 f. *Animal Histology* (3)—One lecture; two laboratories. Prerequisite, one course in zoology.

A study of animal tissues and the technic involved in their preparation for microscopic examination. Fee, \$5.00.

ZOOL. 15 f. *Human Anatomy and Physiology* (4)—Two lectures; two laboratories. Prerequisite, one course in zoology.

For students who desire a general knowledge of human anatomy and physiology. Emphasis is placed upon the physiology of digestion, circulation, respiration, and reproduction. Required of students whose major is physical education, and of those preparing to teach general science or biology. Fee, \$5.00.

ZOOL. 16 s. *Human Physiology* (3)—Two lectures; one laboratory. Not open to freshmen.

Similar to Zool. 15 f. Primarily for home economics students. Fee, \$5.00.

ZOOL. 20 s. *Vertebrate Embryology* (3)—One lecture; two laboratories. Prerequisite, one course in zoology. Consent of instructor must be obtained before registration. Required of students whose major is zoology.

The development of the chick to the end of the fourth day and early mammalian embryology. Fee, \$5.00.

Advanced Undergraduates and Graduates

ZOOL. 101 f and s. *Mammalian Anatomy* (6)—Three laboratories. Registration limited. Permission of the instructor must be obtained before registration.

A course in the dissection of the cat or other mammal. Recommended for premedical students, and those whose major is zoology. Fee, \$5.00 per semester. (Hard.)

ZOOL. 103 f and s. *General Animal Physiology* (6)—Two lectures; one laboratory. Prerequisites, one year of chemistry and one course in vertebrate anatomy. Registration limited to twelve, and permission of instructor must be obtained before registration.

The first semester work deals with the fundamentals of cellular and general physiology; the second semester is devoted to an application of these principles to the higher animals. Fee, \$5.00 per semester. (Phillips.)

ZOOL. 105 y. *Aquiculture* (4)—One lecture; one laboratory. Prerequisite, one course in zoology.

Course deals with the practices employed in rearing aquatic animals and the properties of natural waters which render them suitable for environmental purposes. Fee, \$5.00 per semester. (Truitt.)

ZOOL. 106y. *Journal Club* (2)—One session. Not open for credit to juniors.

Reviews, reports, and discussions of current literature. Required of all students whose major is zoology. (Staff.)

ZOOL. 108 f. *Animal Geography* (3)—Two lectures; one laboratory. Prerequisite, one course in zoology.

This course deals with the distribution, classification, and environmental relations of animals. Several field trips are scheduled. Fee, \$5.00. (Newcombe.)

ZOOL. 120 s. *Animal Genetics* (3)—Two lectures; one laboratory. Permission of the instructor must be obtained before registration.

The fundamental principles of heredity and variation. While primarily of interest to students of biology, this course is of value to those interested in the humanities. Required of students whose major is zoology who do not have credit for G. and S. 101 f. Fee, \$5.00. (Burhoe.)

ZOOL. 121 s. *Animal Ecology* (3)—One lecture; two laboratories. Prerequisite, one course in zoology.

Animals are studied in relation to their natural surroundings. Certain environmental factors affecting growths, behavior, and distribution are analyzed by observations and experiments conducted in the field, and also in the laboratory under controlled conditions. Special field excursions are made to the mountains and seashore. Fee, \$5.00. (Newcombe.)

For Graduates

ZOOL. 200 y. *Marine Zoology* (6)—One lecture; two laboratories. Problems in salt water animal life of the higher Phyla. Fee, \$5.00 per semester. (Truitt.)

ZOOL. 201 y. *Microscopical Anatomy of Vertebrates* (6)—One lecture; two laboratories.

A detailed study of the morphology and activity of cells composing vertebrate tissues. Recent advances in the field of cytology are covered in lectures, assigned readings, and reports. Opportunity is given for individual research. Fee, \$5.00 per semester. (Hard.)

ZOOL. 203 y. *Advanced Embryology* (6)—One lecture; two laboratories. Mechanics of fertilization and growth. A review of the important contributions in the field of experimental embryology and development of animals. Opportunity is given for individual research. Fee, \$5.00 per semester. (Burhoe.)

ZOOL. 204 y. *Advanced Animal Physiology* (6)—One lecture; two laboratories.

The principles of general and cellular physiology as found in animal life. Fee, \$5.00 per semester. (Phillips.)

ZOOL. 205 y. *Biology of Aquatic Organisms* (6)—One lecture; two laboratories.

Biotic, physical, and chemical factors of the aquatic environment, including certain fundamental principles of oceanography. Special reference is made to the Chesapeake Bay region. Fee, \$5.00 per semester. (Newcombe.)

ZOOL. 206 y. *Research*—Credit to be arranged. Fee, \$5.00 per semester. (Staff.)

CHESAPEAKE BIOLOGICAL LABORATORY

This laboratory, located in the center of the Chesapeake Bay country, is on Solomons Island, Maryland. It is sponsored cooperatively by the Maryland Conservation Department, Goucher College, Washington College, Johns Hopkins University, the University of Maryland, Western Maryland College, and the Carnegie Institution of Washington, in order to afford a center for wild life research and study where facts tending toward a fuller appreciation of nature may be gathered and disseminated. The program projects a comprehensive survey of the biota of the Chesapeake region.

The laboratory is open from June until September, inclusive; and during the summer of 1938 courses will be offered in the following subjects: Algae, Economic Zoology, Diatoms, Protozoology, Ichthyology, and Invertebrate Zoology.

These courses, of three credit hours each, are for advanced undergraduates and graduates. They cover a period of six weeks. Not more than two courses may be taken by a student, who must meet the requirements of the Department of Zoology as well as those of the laboratory before matriculation. Each class is limited to five matriculants. Students working on special research problems may establish residence for the entire summer period.

Laboratory facilities, boats of various types fully equipped (pumps, nets, dredges, and other apparatus), and collecting devices are available for the work without extra cost to the student.

For full information consult special announcement, which may be obtained by applying to R. V. Truitt, Director, College Park, Maryland.

SECTION IV DEGREES, HONORS, STUDENT REGISTER

DEGREES CONFERRED, 1936-1937

HONORARY CERTIFICATES OF MERIT

EDWIN WARFIELD, JR.

PAUL LEWIS GUNBY, SR.

JESSE PEYTON KING

THE GRADUATE SCHOOL

Doctor of Philosophy

Dissertation:

ROLFE LYMAN ALLEN

A. B. University of Maryland, 1934 "The legislation for the confiscation
M. A. University of Maryland, 1935 of British and loyalist property
during the Revolutionary War."

GEORGE FREDERICK ALRICH

E.E. Lafayette College, 1910 "Hyperconformal transformations."
M.S. Lehigh University, 1912

EARL JENNINGS ANDERSON

B.S. Washington State College, 1932 "The association of certain chemical
M.S. Washington State College, 1934 and histological characters with
susceptibility in strawberry roots
to black root rot as influenced by
soil treatment."

JOHN OLIVER BURTON

B.S. Hamline University, 1927 "The secondary ionization constant
M.S. University of Maryland, 1933 of malonic acid from 0 to 60° C.
and the heat of ionization of the
acid malonate ion."

CHARLES JELLEFF CARR

B.S. in Pharmacy, University of "The metabolism of the sugar alco-
Maryland, 1933 hols and their anhydrides."
M.S. University of Maryland, 1934

GUSTAV EDWARD CWALINA

B.S. in Pharmacy, University of "A phytochemical study of Ipomoea
Maryland, 1931 Pes-Caprae (L) sweet."
M.S. University of Maryland, 1933

CHESTER ARTHUR DAVIS

B.A. North Texas State Teachers
College, 1924

M.A. University of Wisconsin, 1926

K. PIERRE DOZOIS

B.S. University of Montana, 1927

M.S. Pennsylvania State College,
1930

JOHN E. FABER, JR.

B.S. University of Maryland, 1926

M.S. University of Maryland, 1927

CASTILLO GRAHAM

B.S. Mississippi A. & M. College,
1927

M.S. University of Maryland, 1930

DONALD COOPER GROVE

B.S. in Pharmacy, University of
Maryland, 1930

M.S. University of Maryland, 1933

WILLIAM HOWARD HUNT

B.S. in Pharmacy, University of
of Maryland, 1932

M.S. University of Maryland, 1934

MARION LEE JACOBS

B.S. in Pharmacy, University of
of Nebraska, 1925

M.S. University of Nebraska, 1926

VIRDELL EVERARD MUNSEY

B.S. University of Maine, 1924

M.S. George Washington University,
1931

PAUL ANDREW PARENT

B.S. Catholic University, 1931

M.S. University of Maryland, 1935

Dissertation:

"The opposition to early federal-
ism."

"Studies of the electrophoretic mi-
gration velocity of various micro-
organisms."

"Measurement, production and pres-
ervation of the hemolytic activity
of guinea pig complement."

"Biology and control of the plum
curculio (*Conotrachelus numphar*
Herbst) with special reference to
certain phenological data."

"A phytochemical investigation of
trillium erectum."

"A pharmacological study of *Usti-
lago*."

"A study of new solvents in alka-
loidal assaying."

"An investigation of the application
of the neutral wedge photometer
to the measurement of carotenoid
pigments in flour and macaroni
products."

"The separation of aluminum from
beryllium with the aid of sodium
hexametaphosphate."

Dissertation:

ROBB VERNON RICE

A.B. State University of Montana,
1931

B.S. in Pharmacy, State University
of Montana, 1933

M.S. in Pharmacy, State University
of Montana, 1934

EDWIN GREENWOOD STIMPSON

A.B. University of Maryland, 1930

"The preparation and properties of
some 2, 2, 2-trialkyl ethanols."

"A nutritive study of *Vigna Sinen-
sis* (black-eyed pea variety)."

Master of Arts

EDWIN HARRY BARNES

ROSA LEAH ST. CLAIR BRISTOW

CRYSTAL ELLIOTT

LEA KATHRYN ENGEL

HENRIETTA GOODNER

VIRGINIA COOKE HIGGINS

MARGARET LOUISE HOWARD

WILBUR ARTERS JONES

MICHAEL JOSEPH KELLEY

ALMA ESSEX MARSHALL

CATHRYN ELIZABETH MCFARLAND

LEONA SARA MORRIS

LAURA NEVIUS

MARY ESTHER SMITH

LOWELL MARTIN SOWERS

LUCILLE LA TOURE STINNETT

ALICE ELIZABETH TAYLOR

JOHN CHARLES THOMPSON

EDMUND HENRY UMBERGER

WALTER R. VOLCKHAUSEN

MABEL BARNES WILKINSON

GERTRUDE A. C. WILLIAMS

MAY-LOUISE WOOD

GENEVIEVE ASENATH YONKERS

VERNA MARGARITE ZIMMERMAN

Master of Science

HOWARD FRANKLIN ALLARD

WILLIS HARFORD BALDWIN

JOHN MORTON BELLOWES, JR.

DOROTHY FRANCES BURCH

SPENCER BLISS CHASE

CHARLES CLAYTON CROFT

MARY RUTH CROSS

KATHERINE CUNNINGHAM

GIULIO D. D'AMBROGI

HERBERT JOSEPH FLORESTANO

SYLVAN ELLIS FORMAN

HERBERT GERSHBERG

BERNARD HEINEMANN

EDGAR HARRISON HOLLIS

HENRY GILBERT INGERSOLL

WALTER FULTON JEFFERS

WILLIAM BRADFORD LANHAM, JR.

CHARLES SAMUEL LOWE

JACOB BARRY MANDEL

HOWARD ANTHONY MILLER

CARROLL BLUE NASH

RODNEY ANDREEN OLSON

ARNOLD ZACHARY PFEFFER

PAUL ROUTZAHN POFFENBERGER

ALFRED BENJAMIN RABY

ELSIE MAY SOCKRIDER

MARVIN LUTHER SPECK

HOWARD LIVINGSTON STIER

NORMAN RICHARD URQUHART

DAVID H. WALLACE

COLLEGE OF AGRICULTURE

Bachelor of Science

WALTER HAMILTON ARMIGER	DAVID CHARLES NELLIS
CLAIRE LOUISE BOEKHOFF	ROBERT LOUIS NEZBED
ANNE ROSALEEN BOURKE	WILLIAM ANTHONY NOLTE
HENRY EDWARD BUTLER	ARDLE PATRICK O'HANLON
ROBERT TAYLOR CRUMP	LOUIS FRANCIS ORTENZIO
EDMOND THOMAS DALY	ELIZABETH JANET OSWALD
ROY CARLTON DAWSON	ALFRED BUHR PETTIT
*HAROLD MOON DEVOLT	PRICE GODMAN PIQUETT
EDWARD JAMES FLETCHER	ALTON EUGENE RABBITT
MARY WASHINGTON FRAZER	EDWARD R. SHEGOUE
JOHN JOSEPH GORMLEY	ELMER CLARK STEVENSON
JOHN WILLIAM GUCKEYSON	*THERON LEE ROY TERBUSH
RODNEY TRAVIS HILL	VIRGINIA ELEANOR THOMAS
LEWIS FRANKLIN HOBBS, JR.	J. CALVIN VORIS
WILLIAM SCOTT COMERER JAMES	KENNETH ROBERT WAGAMAN
AMIEL KIRSHBAUM	DAYTON O'LANDER WATKINS
JOHN CORNELL LOVELL	CLAY M. WEBB, JR.
BURTON MARVEN MCFADDEN	AARON WADDINGTON WELCH
IRVING PHILIP MENDELSON	VICTOR GASSAWAY WILLIS, JR.

COLLEGE OF ARTS AND SCIENCES

Bachelor of Arts

HELEN COURTNEY AMISS	MARK WILLIAM DESKIN
THOMAS BURCH ATHEY, JR.	LORETTA MARIE DOLAN
JOHN WELDON BELL	HARRY ALBERT DOSCH, JR.
BRIAN MILLER BENSON	JOHN ERNEST DOWNIN
SOPHIA DEBORAH BILLIG	HARLEY DANIEL DRAKE, JR.
CHARLES BITTINGER, JR.	EDWARD DRESHER
WARREN LEE BONNETT	WILLIAM WILLIAMS EDWARDS
JOHN EDWARD BOOTHE, JR.	CHARLES F. ELLINGER
WALTER BROOKS BRADLEY	DOROTHY ELIZABETH EVANS
A. FREEBORN BROWN, III	GENEVIEVE EVERETT
*WILLIAM OSCAR BUCKINGHAM	EARL WEECH FARR, JR.
REGINALD BURROUGHS, JR.	HUGH G. FARRELL
MILDRED FRANCES CLEMENTS	ISADORE FISCHER
BERNARD ALOYSIUS CUMMINGS	GERALD ELTON FOSBROKE
DOROTHY MAY CUTLER	ROSELLA BOWEN GENGNAGEL
DANIEL RIES DANIEL	DONNIE GODWIN
LULA VONCILE DAVIS	FERDINAND W. GOLDSTEIN
CARMEL DEMARCO	

* Degree conferred September, 1936.

RAYMOND BERNARD GRAEVES, JR.
 WILLIAM RALPH GRAY
 ROBERT OTTO HAMMERLUND
 JOHN GEORGE HART
 JOHN STEPHEN HEBB, III
 ELMER ALBERT HENNIG
 FLORENCE RAYMOND HILL
 ROBERT LESLIE HUGHES, JR.
 RICHARD MORTON HUNT
 ALFRED WARFIELD IRELAND, JR.
 GLADYS VIRGINIA JOHNS
 PYKE JOHNSON, JR.
 DORIS HAVENS JOHNSTON
 MARGUERITE ELIZABETH JONES
 FRANCIS X. JORDAN
 BETTY JANE KEMPER
 ANNA LURA KEPLINGER
 ALVIN S. KLEIN
 *THEODORE CLARK LANGLEY
 MELVIN COURTNEY LANKFORD
 MARY WARD LEWIS
 DOROTHY EVELYN LINDNER
 RICHARD A. LOESER
 ERNST DRAKE LUNDELL
 LAWRENCE VINCENT LUTES
 MARY FRANCES MACCUBBIN
 RICHARD HENDERSON MCCAFFREY
 EUNICE MILLER
 PAUL FRANKLIN MOBUS
 CHARLES EVERETT MORGAN

ROBERT ANDREWS NEWMAN
 GEORGIA ANNE NORDEEN
 JESSE DALE PATTERSON
 DOROTHY V. ROBY
 JANET ARDEN ROSEN
 DOROTHY ESTHER SAVAGE
 WILLIAM RANDOLPH SCHNEIDER
 GERALDINE JANE SCHUH
 WALTER KENNETH SCOTT
 ABRAHAM SEIDENBERG
 MELVIN STANLEY SILBERG
 MAURICE BENJAMIN SINSHEIMER, JR.
 FRANCIS EDWARD SMITH, JR.
 FRANK S. SMITH
 HERBERT LEE SMITH, JR.
 RUTH EUTELKA SOMERVILLE
 CLARENCE TEMPLE THOMASON
 KATHRYN ELLEN THOMPSON
 CARL EDWARD TUERK
 *MILES TAWES TULL
 VIRGINIA LOCKWOOD VENEMANN
 JEROME WASSERMAN
 ALBERT GREGORY WATERS
 STANLEY BOYKIN WATSON
 GEORGE WENDELL WHITE, JR.
 IRIS ELIZABETH WILSON
 GORDON WOOD
 ELWYN CHAPPEL WOODWARD
 JOHN P. ZEBELEAN, JR.
 RICHARD EDWARD ZIMMERMAN

Bachelor of Science

JOHN LAWRENCE AVERY	EUGENIA TERESA GACZYNSKI
CLYDE WILKINSON BALCH	*LEX BAILEY GOLDEN
LUCILLE KATHRYN BENNETT	RAY HERBERT GREENFIELD
DAVID PETER BERMAN	JAY LEON HELFGOTT
FRANCIS MILES BOWER	NORMAN LESTER HOBBS
WALTER PHILIP BRIAN	*CHARLES BULLARD HOOKER
JOHN LOUIS CAPALBO	ELIZABETH LOUISE HOOTON
HAROLD S. COLE	VITA R. JAFFE
EDWIN O. DAUE, JR.	GEORGE BERNARD KELLY, JR.
RAYMOND DAVIS, JR.	SCHUYLER GEORGE KOHN
GORDON FREDERICK DITTMAR	KEACIEL KRULEVITZ
WAYNE PHILIP ELLIS, JR.	JOSEPH SIDNEY LANN

* Degree conferred September, 1936.

ARTHUR IRVING LEVY
 FRANK FORD LOKER
 LOUISE CATHERINE MARCHÉ
 JOSEFINA MARTÍNEZ CORTÉZ
 OLIN RICHARD MELCHIONNA
 JAMES MCCLAIN OSBORN
 JUSTIN DAVIS PADDLEFORD
 MORTIMER PANOFF
 KARLTON WAYNE PIERCE
 FRANK LEO POLLACK
 LEONARD POSNER
 MARION BALLARD RICHMOND
 CHRISTIAN F. RICHTER, JR.

T. EDGIE RUSSELL, JR.
 *THOMAS FREDERICK SCHEELE
 STANLEY EUGENE SCHWARTZ
 GEORGE ALOYSIUS SESSO
 LEO J. SKLAR
 THOMAS RICHARD SWEENEY
 RAYMOND KIEF THOMPSON
 *ALBERT WALTER WEBB
 *SEYMOUR WIEDERLIGHT
 JESSE LEE WILKINS
 MAX DAVID ZANKEL
 FREDERICK ALBERT ZIHLMAN

SCHOOL OF DENTISTRY

Doctor of Dental Surgery

HARRY AKS	VICTOR LEMOINE HEUSER
SOL BARSKY	ABRAHAM HIRSHORN
CURTIS MUSE BEETHAM	VIVIAN MEYER JEHIEL JACOBS
BERNARD ROBERT BERKOWITZ	DONALD BEEBE BOOTH JONES
IRVING BERMAN	PETER THEODORE KANELOS
WILBUR DARWIN BURTON, JR.	CHARLES BEN KUPERS
JOSEPH BYER	HAROLD HARRY LAVINE
ANTHONY VICTOR CAPUTO	MELVIN RALPH LEONARD
WILLIAM RAYMOND CASEY	HAROLD JACK LESSOW
*ALFONSE CENTANNI	DAVID AARON LEVIN
ALBERT THOMAS CLEWLOW	GUILFORD LEVITAS
M. RUBIN COLBY	BERNARD MELVIN LEWIS
HENRY DAVIS	MILTON SETH LUBARSKY
MARK ORSAMUS DAVIS, JR.	SIMON GEORGE MARKOS
KENNETH FORSYTHE DOWNES	BOLESLAW WALTER MIKSINSKI
JOSEPH LAWRENCE DOWNS	ROBERT GREER MILLER
RICHARD JAMES EAMICH	JOSEPH ANTHONY MIRABELLA, JR.
FREDERICK MELVIN EDWARDS	PAUL BOYD MOOREFIELD
LOUIS BENJAMIN FINKELSTEIN	ERNEST LINWOOD MYERS, JR.
ISADORE EDWARD FOX	CHRIS ANTHONY NACRELLI
HERBERT FRIEDBERG	*WALTER JOSEF NELSON
JAMES AMBROSE FULMER, JR.	BENJAMIN LEONARD POSTER
MORRIS RALPH GARE	GORDON SCOTT PUGH
RAYMOND JOSEPH GAUDREAU	JOSEPH EMILE RALPH
GEORGE HAROLD GLICK	ROBERT ALTON REED
JESSE JEROME GREENBERG	BERNARD HENRY REILLY
GAETAN GEORGES GRÉGOIRE	JOTHAM GAY REYNOLDS
JOHN CONRAD HECK	RICHARD EDGEWORTH RICHARDSON

* Degree conferred September, 1936.

HARRY EWELL RIGGIN
 FRANKLIN JOHN ROH
 IRVING HARVARD ROSEN
 JOSEPH ZEOLI SALVATORE
 ALONZO LEPAGE SEIDLER
 *ERNEST GUSTAVE SEYFERT
 JACK SHOBIN
 MAURICE DAVID SHURE
 WILLIAM HERMAN SILVERSTEIN

WILLIAM BOWER SIMINGTON
 MORRIS DAVID SIMON
 ISAAC WALTER SLOAN
 DARWIN ROBERT SWINEHART
 ELMER LOUIS SYDNEY
 GILBERT YOFFE
 RAYMOND EDWARD ZEINER
 ALFONCE WALTER ZERDY

COLLEGE OF EDUCATION

Bachelor of Arts

JANET TROUTON ANDERSON	DONALD FOSTER MELCHIOR
EVELYN MARGUERITE BRADFORD	DOROTHY MINKER
ELIZABETH DEBELL BROWN	*ANNA MARY NICHT
JANET LOUISE CARTEE	EDNA PENMAN NOLAN
AMY MILDRED COCHRAN	ELEANOR CAROLYN NORDEEN
MARY ELIZABETH CURRAN	SAMUEL J. POLACK
ANNE SHMUNER DANTZIG	ISABEL E. RESNITSKY
*MARGARET GLENDORA DOWNS	SARAH MARGARET SMITH
WILLIAM MARSHALL FATKIN	*EDITH LOUISE STILES
*LEONARD SHARP GRIFFITHS	LOIS LENORA TALCOTT
ADDIE JAMES HOWARD	DORCAS ROSALIA TEAL
RUTH KREITER	MARGARET WILLIAMS

Bachelor of Science

JEAN BARNSLEY	*ROBERT CREECY HENLEY
JOHN SHARPLEY BAYLEY	MARJORIE ADELE HIGGINS
EDITH URSULA BELL	LUCILE VIRGINIA LAWS
BERTRAND SAMUEL BERMAN	MARION LEE
*HELEN DOTY BICKMORE	MICHAEL LOMBARDO
ANNA BAKER BONNER	CHARLES EDWARD LUGAR
VIOLA MARIAN BUHROW	LOIS G. MOLYNEAUX
ROSEMARY JACOB BURTNER	ANGELA BIRMINGHAM MURPHY
*JOHN G. BYERS	ELIZABETH MARGARET NORRIS
VIRGINIA PENDLETON CARPENTER	*MARGARET LEONA NOWELL
JEANETTE FRANCES CHATHAM	HARRY E. PARKER, JR.
SIDNEY S. COHEN	MARY PENCE
MARY BRANDON CRISP	PAUL EMIL PFEIFFER
ROBERT EDWARD DAVIS	JAMES FRANKLIN PUSEY
*ELIZABETH S. DOWNING	HELEN BRYAN RAMSBURG
BLANCHE ELIZABETH FORSYTH	*KATHRYN G. REIDY
HELENE LUVE GRANBERY	MICHAEL JOSEPH RYAN, JR.
HARRY B. GRETZ	ALICE JEANNE SOLLIDAY

* Degree conferred September, 1936.

CARL GERHARD STALFORT
 JOHN THEADORE STONE
 ELSIE ANNE STRATMANN
 OLIVE WRIGHT SUDLER
 BEATRICE SUGAR
 HARRY ROY SWANSON
 LORNA LEE SWEEN

CLARA MAE TARBETT
 ELLA KATHERINE WEAVER
 EDITH M. WILLIAMS
 CHARLES FREDERICK YAEGER, JR.
 CAROLYN ROBERTA YOUNG
 JAMES FRANKLIN ZIMMERMAN
 CHARLES MARTIN ZULICK

**Bachelor of Science
 Industrial Education**

JAMES THOMAS BLACKISTON
 ALICE ANNA EKAS
 CHARLES RAYMOND GROSS
 E. KENNETH GROVE

LILLIAN KARPA
 JULIA MARGUERITE NEILSON
 FRANK SILVERMAN
 GEORGE PHILIP VOGEL

Teachers' Diplomas

JOHN SHARPLEY BAYLEY
 EDITH URSULA BELL
 SOPHIA DEBORAH BILLIG
 ANNA BAKER BONNER
 EVELYN MARGUERITE BRADFORD
 ELIZABETH DEBELL BROWN
 VIOLA MARIAN BUHROW
 *JOHN G. BYERS
 JEANETTE FRANCES CHATHAM
 MARY BRANDON CRISP
 MARY ELIZABETH CURRAN
 ANNE SHMUNER DANTZIG
 DOROTHY ELIZABETH EVANS
 WILLIAM MARSHALL FATKIN
 MARTHA LOUISE GILES
 HARRY B. GRETZ
 *ROBERT CREECY HENLEY
 MARJORIE ADELE HIGGINS
 MARION W. HUGHES
 WALTER FULTON JEFFERS
 GLADYS VIRGINIA JOHNS
 RUTH KREITER
 MARION LEE
 VIRGINIA ELIZABETH LEISHEAR
 MICHAEL LOMBARDO
 CHARLES EDWARD LUGAR

MARY FRANCES MACCUBBIN
 DONALD FOSTER MELCHIOR
 DOROTHY MINKER
 LOIS G. MOLYNEAUX
 *ANNA MARY NICHT
 ELIZABETH MARGARET NORRIS
 MARY PENCE
 PAUL EMIL PFEIFFER
 SAMUEL J. POLACK
 JAMES FRANKLIN PUSEY
 ISABEL E. RESNITSKY
 *EDITH LOUISE STILES
 ELSIE ANNE STRATMANN
 OLIVE WRIGHT SUDLER
 LORNA LEE SWEEN
 LOIS LEONORA TALCOTT
 CLARA MAE TARBETT
 DORCAS ROSALIA TEAL
 VIRGINIA ELEANOR THOMAS
 VIRGINIA LOCKWOOD VENEMANN
 ELLA KATHERINE WEAVER
 MARGARET WILLIAMS
 CAROLYN ROBERTA YOUNG
 JAMES FRANKLIN ZIMMERMAN
 CHARLES MARTIN ZULICK

* Degree conferred September, 1936.

COLLEGE OF ENGINEERING

Civil Engineer

ULPIANO CORONEL ZEVALLOS

MILTON ALLENDER PYLE

Electrical Engineer

HARRY WARREN WELLS

Bachelor of Science

ROBERT WOODBURY BECKHAM
 HERMAN WILLIAM BERGER, JR.
 MARTIN LUTHER BROTEMARKLE
 WRIGHT GADDESS CALDER
 WILLSON CARPENTER CLARK
 HERMAN PONSFORD DIAL
 WILLIAM JOHN DONAHUE, JR.
 HAROLD A. EGGERS
 CHARLES WHEELER FELTON, JR.
 PHILIP FIRMAN
 CHARLES SHIRLEY FURTNEY
 RALPH GLENN GALL
 EDWARD HARRY DRAKE GIBBS
 GEORGE EDEL GILBERT
 *JOSEPH MONTGOMERY HARRIS
 JOHN WELDEN HEISS
 HOULDER HUDGINS
 LOUIS R. HUEPER
 BENJAMIN THOMAS HYNSON
 ROBERT AUSTIN JACKSON
 CHARLES FRANCIS JANES
 HAROLD LEON KELLY, JR.
 WILLIAM CARLTON LEASURE

ALEXANDER ANDREW LOPATA
 FRANCIS W. LUDLOW
 ARTHUR WILBUR MANN
 ALLEN MARANS
 WILLIAM AUGUSTUS MCCOOL
 PHILIP CHARLTON MCCURDY
 THOMAS S. McDONALD
 JOHN A. McLEAN, JR.
 ROBERT JOHN MCLEOD
 EMERSON D. F. OGLE
 CHARLES BERNARD ORCUTT
 *WILLIAM APPLETON PATES
 NORMAN PARKS PATTERSON
 DORAN STONE PLATT, JR.
 *ELLIS POLLOCK ROOT
 GLEN WILLARD ROSE
 JOHN SEMPLE SHINN
 FRANCIS DODGE SHOEMAKER
 GILBERT EARLE TEAL
 WILLIAM S. TIBBETS
 PRESLEY ALLEN WEDDING
 ALVIN HURD WILLIS

COLLEGE OF HOME ECONOMICS

Bachelor of Science

ELIZABETH LOUISE BENTON
 EMMA LOUISE BOOTH
 *BARBARA ELINOR CORNELL
 BERNICE ANNE ELLIS
 MARY FRANCES GARNER
 MARTHA LOUISE GILES
 KATHARINE ELEANOR GOLL
 EDITH WAGSTAFF HAZARD
 ELIZABETH CHESTER JEFFERS

VIRGINIA ELIZABETH LEISHEAR
 MARY FLORENCE MILLER
 MARGARET AILEEN PRICE
 JOAN WARREN RYMER
 RUTH IRENE SNYDER
 HELEN SOMERS
 ELIZABETH SPITLER
 MARGARET ELEANOR STARR
 LOIS ELAINE STEARNS

* Degree conferred September, 1936.

HELEN ANNA STOLZENBACH
KATHERINE CRAIG VOLLAND
FLORA EDITH WALDMAN

JANET STEWART WEIDEMANN
VIVIAN EDITH WULF

SCHOOL OF LAW

Bachelor of Laws

†IRVING J. APPLEFELD
CHARLES EDWARDS ATHEY
JAMES STEPHEN BECKER
WILLIAM FRANCIS BENDER
JOSEPH GERALD BLOOM
†ALLEN EUGENE BUZZELL
†EBERLE WILLIAM CARR
WILLIAM R. CARSCADEN
DEWITT FORMAN CLARKE
BERNARD SOLOMON COHEN
JOSEPH PAUL COOLAHAN
†RICHARD EDMUND CULLEN
†EARL MARTIN DIXON
SHERLEY EWING
MILTON GERSON
†CLIFFORD HOLMES GRAVES
THOMAS MEREDITH HOUFF
ALFRED THEODORE JACOBSON
†WILLIAM SMITH JAMES
MAURICE A. KAPLAN
FRANK BARTHOLOMEW KEECH
EDWARD JOHN LIPIN
PAUL TOBIN MAGINNIS
EDWARD WIEGAND MATTINGLY
HARRY ALGIRE MCFAUL

AMOS I. MEYERS
CHARLES DAVIS MOORE
FRANCIS ROBERT MORAN
JAMES COOKE MORTON, JR.
PHILIP JOHN PICARIO
CHARLES JOSEPH POTTS
†GORDON GILBERT POWER
JOHN CARROLL POWER
JAMES HARFORD PYLE
LEE BISHOP REYNOLDS
†JAMES WILSON ROUSE
JOHN GOULD ROUSE, JR.
EDWARD ANTHONY SCHAUB, JR.
HENRY LYON SINSKEY, JR.
CARL FREDERICK STISSEL
HENRY PAUL STRUZINSKI
†WILLIAM RANDOLPH TUCKER
J. EDWARD TYLER, III
D. MERLE WALKER
*ROBERT WARREN WARFEL
JOHN WARHOL, JR.
JOHN THOMAS WELSH
LAWRENCE E. WESNER
ROBERT HOPE WILLIAMS, JR.

Certificate of Proficiency

ANTHONY JOSEPH MRAZ

SCHOOL OF MEDICINE

Doctor of Medicine

THOMAS GILBERT ABBOTT
R. STANLEY BANK
ERNEST BARNETT
EUGENE SYDNEY BERESTON
LEONARD BRILL
LESTER LEON BURTNICK

CARL EDWIN CARLSON
J. R. CASANOVA DÍAZ
ROLAND ARNOLD CHRISTENSEN
JOSEPH MICHAEL COCIMANO
STUART GRAY COUGHLAN
LOUIS EUGENE DAILY

*Degree conferred September, 1936.
†With honor.

CHARLES MAGNO D'ALESSIO
THOMAS VINCENT D'AMICO
ELI DAVIDSON
NESHON EDWARD DERADORIAN
EVERETT SCHNEPPE DIGGS
WILLIAM MONROE EISNER
EMANUEL SIMON ELLISON
HELEN ROBINSON ENSOR
PHILIP MICHAEL FELDMAN
JOHN HANNON FINN
ISAAC PHILLIPS FROHMAN
SIDNEY RICHARD GEHLERT, JR.
JOHN LAWRENCE GILLESPIE
HERBERT GOFFIN
SIGMUND GOLDBERG
WILLIAM CECIL GORDON
ROBERT JOSEPH GORE
ELVIN EDWARD GOTTDIENER
FRANK GREENWALD
CHARLES SOLOMON HAHN
GROVER CLEVELAND HEDRICK, JR.
BENJAMIN HIGHSTEIN
LEO HOCHFELD
EUGENE WELCH HODGSON
CHARLES WILBUR HOFFMAN, JR.
WILLIAM COOLIDGE HUMPHRIES
SAMUEL JACKSON
ALAN JACOBSON
CLARENCE FREDERICK JOHNSTON, JR.
JAMES PORTER JONES
JAMES EARL KADAN
GORDON ARTHUR KAGEN
D. FRANK OLEWILER KALTREIDER, JR.
ISADORE KAPLAN
JACK ALLEN KAPLAN
NATHAN KAPLAN
ALBERT HERBERT KATZ
ISADORE KATZ
IRVIN BERNARD KEMICK
IRVIN PHILIP KLEMKOWSKI
LESTER NORMAN KOLMAN
MITCHELL FRANK KUNKOWSKI
LOUIS WORON LESKIN
LEONARD WARREN LEVINE
LEONARD JULES LEVINSON

ELMER GEORGE LINHARDT
EPHRAIM THEODORE LISANSKY
WILLIAM BROUGHTON LONG, JR.
CHESTER JAMES LUBINSKI
STEPHEN CASIMIR MACKOWIAK
FRANK VINCENT MANIERI
IRENE THELMA MARINO
OTTO GEORGE MATHEKE, JR.
MILTON JOSEPH MEYER
EDWIN STEPHEN MULLER
JOSEPH ENNALLS MUSE
PHILIP MYERS
MAURICE NATARO
RICHARD SPURGEON OWENS, JR.
ISIDORE EARL PASS
AUGUST CONSTANTINE PAVLATOS
LAWRENCE PERLMAN
PASQUALE HUMBERT PICCOLO
FREDERICK PHILLIP POKRASS
ELTON RESNICK
SAMUEL THOMPSON REDGRAVE
REVELL, JR.
HENRY LEWIS RIGDON
ISADORE MORRIS ROBINS
MARTIN HERMAN ROBINSON
REUBEN ROCHKIND
EPHRAIM ROSEMAN
MORRIS RUBIN
GILBERT ELMORE RUDMAN
JOHN PAUL SAKOWSKI
NORMAN ELLIS SARTORIUS, JR.
CLARENCE PARKE SCARBOROUGH, JR.
JACOB EDWARD SCHMIDT
JOHN KING BECK EMORY SEEGAR, JR.
JOSHUA SEIDEL
MILTON C. F. SEMOFF
SYDNEY SEWALL
ABRAHAM ALBERT SHAPIRO
MEYER ROBERT SHEAR
MORTON MARVIN SPIELMAN
MANUEL STAPEN
BERNHARDT JOSEPH STATMAN
*JOSEPH LOUIS STECHER
ALBERT STEINER
THOMAS JOHN SULLIVAN

* Degree conferred September, 1936.

MASON TRUPP
*GEORGE LOUIS VIEWEG, JR.
GEORGE JONES WEEMS
HENRY WOLFE WEISS
FRANK DIXON WHITWORTH
MABEL GIDDINGS WILKIN

RICHARD JONES WILLIAMS
ROBERT RODERIC WILLIAMS
ELDRIDGE HENRY WOLFF
JACK HENRY WOODROW
FRANK ANTHONY ZACK
ISRAEL ZELIGMAN

SCHOOL OF NURSING

Graduate in Nursing

MARY VIRGINIA BANES
WANDA DELPHINE BOSLEY
CATHERINE ELIZABETH CARPENTER
SARAH CORNELIUS
MILDRED ELISBETH CRAMER
ESTHER MARY DALLMUS
NAOMI GRACE HERSH
MINA GERALDINE HOOE
MARJORIE LUCILE KAUTZ
MARY KLUKA
SALLIE FRANCES KNIGHT
EDITH EVELYN LEWIS
EVELYN LUCILLE MATTSON
MURIEL HILL MCARTHUR
LOUISE MANNING MOYE
BEATRICE PATRICIA O'CONNOR
WILLYE FRANCES PARKS
ROSE PENNINGTON

BEATRICE LORRAINE PILGRIM
LENA WINIFRED QUARTERMAN
CAROLYN ROBERTA RAYME
MARY LAURIE RUDISILL
FRANCES VIRGINIA SAPPINGTON
DUSETTA ELIZABETH SCARBOROUGH
CHARLOTTE EILEEN SHAFFER
EVELYN FREELove SHERRILL
MARY IMOGENE SKINNER
JANE ISABELLE SLICK
ELEANOR FRANCES STAUFFER
ROSE ELIZABETH STRICKLAND
EDNA EARL SUTTON
DOROTHY MERLE TOOM
MARGARET CATHERINE TURNER
HELEN KATHRYN WAGNER
MABYL JANE WILSON

SCHOOL OF PHARMACY

Bachelor of Science in Pharmacy

BENJAMIN FRANK ALLEN
MORRIS JOSHUA ALLIKER
REUBEN ROBERT ALPERSTEIN
SYLVAN E. BECK
ABRAHAM BLIDEN
RICHARD C. BRUNE
JEROME JERRY CERMAK
HERSHEL COHEN
SAMUEL DAMICO
LEROY OLDHAM DAWSON
*WILLIAM ANTHONY DODD
*ARNOLD H. EICHERT
SYLVAN PHILIP EINBINDER
ALBERT ABRAHAM ELLERIN

HARRY ENTEN
JULIUS WALTER FERET
HERMAN JESSE FISH
*SAMUEL LOUIS FOX
CHARLES STEELE FRIEDMAN
SHIRLEY M. GLICKMAN
WILLIAM MELVIN HANNA
SYLVAN ALLAN HOFFMAN
*FRANCIS JOSEPH JANUSZESKI
FELIX H. KAMINSKI
JEROME JAY KARPA
ELMER ROBERT KELLOUGH, JR.
*BENJAMIN BERNARD LAKEN
ABRAHAM MAURICE LEVY

* Degree conferred September, 1936.

FRANK FERDINAND LEVY
A. M. LIBOWITZ
FRANK JOSEPH LIEB
ALEXANDER M. MAYER
FRANCIS ROWLAND MCGINITY
HENRY MERKEL
MILTON MILLER
SOLOMON MILLER
CHARLES MINDELL
EMMA LOUISE MORGENSTERN
GORDON ANTHONY MOUAT
LEO MILTON MUSACCHIO
IRVIN LOUIS MYERS
JOHN FREDERICK NEUTZE
FRANK LEWIS PURDUM
IRVING WOLF RABINOWITZ
LEONARD RAPOPORT
JOHN ANTHONY RAUDONIS
ISRAEL AARON ROSENFELD

EDWARD VINCENT RUTKOWSKI
DANIEL ANTHONY SANTONI
EDWARD I. SAPPERSTEIN
ISADORE SBOROFKY
MELVIN GERALD SCHERR
FREDERICK ALBERT SCHUMM
WILLIAM WALTER SEECHUK
GERALD MELVIN SEMER
IRVIN ISRAEL SILVERMAN
SYLVAN TOMPAKOV
MILLARD TOLSON TRABAND, JR.
ALBERT FRANKLIN TURNER, JR.
*JOHN PETER URLOCK, JR.
WINFIELD ALEXANDER WALB
THEODORE JOHN WASILEWSKI
DAVID WEINER
RUTH R. WEISBERG
SOLOMON WINN
BERNARD LEON ZENITZ

HONORS, MEDALS, AND PRIZES, 1936-37

Elected Members of Phi Kappa Phi, Honorary Society

JANET TROUTON ANDERSON
JOHN WELDON BELL
ELIZABETH LOUISE BENTON
FRANCIS MILES BOWER
VIOLA MARIAN BUHROW
WILLSON CARPENTER CLARK
CHESTER ARTHUR DAVIS
LULA VONCILE DAVIS
LEA KATHRYN ENGEL
GENEVIEVE EVERETT
GERALD ELTON FOSBROKE
DONNIE GODWIN
JOHN GEORGE HART
ROBERT AUSTIN JACKSON
VITA R. JAFFE
CHARLES FRANCIS JANES
ALEXANDER ANDREW LOPATA
ALLEN MARANS

WILLIAM AUGUSTUS MCCOOL
ROBERT JOHN MCLEOD
DONALD FOSTER MELCHIOR
ROBERT ANDREWS NEWMAN
ISABEL E. RESNITSKY
ROBB VERNON RICE
JANET ARDEN ROSEN
GERALDINE JANE SCHUH
STANLEY EUGENE SCHWARTZ
ABRAHAM SEIDENBERG
ELIZABETH SPITLER
EDWIN GREENWOOD STIMPSON
LORNA LEE SWEEN
CLARA MAE TARBETT
KATHERINE CRAIG VOLLAND
FLORA EDITH WALDMAN
ALVIN HURD WILLIS
RICHARD EDWARD ZIMMERMAN

Elected Members of Sigma Xi, Honorary Scientific Fraternity

EARL JENNINGS ANDERSON
CHARLES JELLEFF CARR
GUSTAV EDWARD CWALINA

JOHN EDGAR FABER, JR.
CASTILLO GRAHAM
DONALD COOPER GROVE

* Degree conferred September, 1936.

OLIVER GLENN HARNE
WILLIAM JAMES HART
DAVID FAIRCHILD HOUSTON
FRANK LEE HOWARD
WILLIAM HOWARD HUNT
ROBERT ANTHONY LITTLEFORD

GEORGE FRANCIS MADIGAN
VIRDELL EVERARD MUNSEY
PAUL ANDREW PARENT
ROBB VERNON RICE
EDGAR BENNETT STARKEY
EDWIN GREENWOOD STIMPSON

Citizenship Medal, Offered by Dr. H. C. Byrd, Class of 1908
JOHN WILLIAM GUCKEYSON

Citizenship Prize, Offered by Mrs. Albert F. Woods
FLORA EDITH WALDMAN

Athletic Medal, Offered by the Class of 1908
JOHN JOSEPH GORMLEY

Maryland Ring, Offered by Charles L. Linhardt
JOHN WILLIAM GUCKEYSON

Goddard Medal, Offered by Mrs. Annie K. Goddard James
CHARLES FRANCIS JANES

Sigma Phi Sigma Freshman Medal
MARY ELIZABETH HARROVER

Delta Delta Delta Sorority Medal
LYDIA MACMULLEN EVANS

Medal and Junior Membership, Offered by the American Institute
of Chemists
FRANCIS MILES BOWER

Dinah Berman Memorial Medal, Offered by Benjamin Berman
THOMAS PARKER WHARTON

Mortar Board Cup
LULA VONCILE DAVIS

The Diamond Back Medals
CARLISLE HUBBARD HUMELSINE
JESSE DALE PATTERSON
JANET STEWART WEIDEMAN
ROBERT ELWOOD BAKER
CHRISTINE KEMPTON

The Terrapin Medals

PAUL SMITH WISE
WILLIAM JAMESON MCWILLIAMS
DOROTHY MERRIAM HOBBS

The Old Line Medals

PYKE JOHNSON, JR.
NORMAN PARKS PATTERSON
HELEN SOMERS

Governor's Drill Cup

COMPANY C, COMMANDED BY CADET CAPTAIN IRVING PHILIP MENDELSON

Reserve Officers' Association Award

CADET CAPTAIN IRVING PHILIP MENDELSON

Military Medal, Offered by the Class of 1899

CADET FRANCIS ZALESAK

Alumni Military Cup

SECOND PLATOON, COMPANY A, COMMANDED BY
CADET FIRST LIEUTENANT NORMAN PARKS PATTERSON

The Scabbard and Blade Award, to the Commander of the Winning Platoon

CADET FIRST LIEUTENANT NORMAN PARKS PATTERSON

Squad Competition Gold Medals

CADET CORPORAL HARVEY WILSON KREUZBERG, JR.
CADET WILLIAM BRYAN ROWE, JR.
CADET ROBERT WILLIAM FARKAS
CADET ROBERT AUGUST BRAND, JR.
CADET THOMAS LUDLOW COLEMAN
CADET LAWRENCE JOHN MATTINGLY
CADET RICHARD WESTLEY CARROLL
CADET GEORGE CARLTON REMSBERG, JR.

William Randolph Hearst Rifle Match Medals

CADET RAYMOND DAVIS, JR.
CADET WILLARD CECILLIUS JENSEN
CADET WARREN PRUDEN DAVIS
CADET ROBERT LEE MATTINGLY
CADET AARON WADDINGTON WELCH

National Society of Pershing Rifles Medals

CADET THOMAS WISE RILEY, Gold Medal
CADET JOHN GEKLER RECKORD, Silver Medal
CADET WILLIAM HENRY MCMANUS, JR., Bronze Medal

WAR DEPARTMENT AWARDS OF COMMISSIONS
AS SECOND LIEUTENANTS

The Infantry Reserve Corps

ALBERT PAUL BACKHAUS	ROBERT WELLINGTON JONES
HERMAN WILLIAM BERGER, JR.	GEORGE BERNARD KELLY, JR.
JOHN EDWARD BOOTHE, JR.	HAROLD LEON KELLY, JR.
FRANCIS MILES BOWER	JOSEPH SIDNEY LANN
MARTIN LUTHER BROTEMARKLE	ROBERT JOHN MCLEOD
WRIGHT GADDESS CALDER	IRVING PHILIP MENDELSON
WILLSON CARPENTER CLARK	CHARLES EVERETT MORGAN
CHARLES HARVEY COOKE	EUGENE FREDERICK MUELLER, JR.
CHARLES HERSEY CULP	JUSTIN DAVIS PADDLEFORD
RAYMOND DAVIS, JR.	JESSE DALE PATTERSON
HERMAN PONSFORD DIAL	NORMAN PARKS PATTERSON
HARRY ALBERT DOSCH, JR.	ALFRED BUHR PETTIT
PHILIP FIRMIN	PAUL EMIL PFEIFFER
EDWARD JAMES FLETCHER	KARLTON WAYNE PIERCE
CHARLES SHIRLEY FURTNEY	JAMES WILMER PRICE, JR.
JOHN JOSEPH GORMLEY	ALFRED EVERETT SAVAGE
RAYMOND BERNARD GRAEVES, JR.	WALTER KENNETH SCOTT
ROBERT OTTO HAMMERLUND	JOHN SEMPLE SHINN
THOMAS DANIEL HARRYMAN	MAURICE BENJAMIN SINSHEIMER, JR.
JOHN GEORGE HART	CLARENCE TEMPLE THOMASON
ELMER ALBERT HENNIG	CLAY M. WEBB, JR.
NORMAN LESTER HOBBS	AARON WADDINGTON WELCH
CARLISLE HUBBARD HUMELSINE	SAMUEL GORDON WOOD
ALFRED WARFIELD IRELAND, JR.	MAX DAVID ZANKEL

HONORABLE MENTION

College of Agriculture

First Honors—HENRY EDWARD BUTLER, AARON WADDINGTON WELCH,
CLAY M. WEBB, JR., ALFRED BUHR PETTIT.

Second Honors—J. CALVIN VORIS, ANNE ROSALEEN BOURKE, DAVID CHARLES
NELLIS.

College of Arts and Sciences

First Honors—LULA VONCILE DAVIS, ABRAHAM SEIDENBERG, GERALDINE
JANE SCHUH, GENEVIEVE EVERETT, JOHN WELDON BELL,
FRANCIS MILES BOWER, DONNIE GODWIN, VITA R. JAFFE,
RICHARD EDWARD ZIMMERMAN, STANLEY EUGENE
SCHWARTZ, JOHN GEORGE HART, JANET ARDEN ROSEN,
GERALD ELTON FOSBROKE, MORTIMER PANOFF.

Second Honors—ROBERT ANDREWS NEWMAN, PYKE JOHNSON, JR., JOSEPH
SIDNEY LANN, DAVID PETER BERMAN, RICHARD A. LOESER,
HAROLD S. COLE, JESSE DALE PATTERSON, WILLIAM RALPH
GRAY, ELMER ALBERT HENNIG, CHARLES EVERETT MORGAN,
JEROME WASSERMAN, SCHUYLER GEORGE KOHN, ISADORE
FISCHER, MILDRED FRANCES CLEMENTS.

College of Education

First Honors—JANET TROUTON ANDERSON, CLARA MAE TARBETT, DONALD
FOSTER MELCHIOR, ISABEL E. RESNITSKY, VIOLA MARIAN
BUHROW, LORNA LEE SWEEN.

Second Honors—LOIS G. MOLYNEAUX, SAMUEL J. POLACK, MARGARET
WILLIAMS, EDITH M. WILLIAMS, ELSIE ANNE STRATMANN,
EVELYN MARGUERITE BRADFORD, ANGELA BIRMINGHAM
MURPHY.

College of Engineering

First Honors—ROBERT AUSTIN JACKSON, WILLIAM AUGUSTUS MCCOOL,
ALEXANDER ANDREW LOPATA, ALLEN MARANS.

Second Honors—CHARLES FRANCIS JANES, ROBERT JOHN MCLEOD, ALVIN
HURD WILLIS, WILLSON CARPENTER CLARK.

College of Home Economics

First Honors—ELIZABETH SPITLER, FLORA EDITH WALDMAN.

Second Honors—KATHERINE CRAIG VOLLAND, ELIZABETH LOUISE BENTON.

School of Dentistry

University Gold Medal for Scholarship
DARWIN ROBERT SWINEHART

Certificates of Honor

ALBERT THOMAS CLEWLOW	HENRY DAVIS
RICHARD EDGEWORTH RICHARDSON	ALFONCE WALTER ZERDY
ALONZO LEPAGE SEIDLER	

School of Law

Prize of \$100.00 for the Highest Average Grade for the Entire Course,

Day School

ALLEN EUGENE BUZZELL

Prize of \$100.00 for the Highest Average Grade for the Entire Course,

Evening School

CLIFFORD HOLMES GRAVES

Alumni Prize of \$50.00 for Best Argument in Honor Case in
the Practice Court

JAMES COOKE MORTON, JR.

George O. Blome Prizes to Representatives on Honor Case in
the Practice Court

EBERLE WILLIAM CARR
EARL MARTIN DIXON

CLIFFORD HOLMES GRAVES
JAMES COOKE MORTON, JR.

School of Medicine

University Prize Gold Medal
WILLIAM BROUGHTON LONG, JR.

Certificates of Honor

MORRIS RUBIN
MORTON MARVIN SPIELMAN

R. STANLEY BANK
MABEL GIDDINGS WILKIN

JACOB EDWARD SCHMIDT

The Dr. A. Bradley Gaither Memorial Prize of \$25.00 for the Best Work
in Genito-Urinary Surgery during the Senior Year

MASON TRUPP

School of Nursing

The Janet Hale Memorial Scholarship, Given by the University of Maryland
Nurses' Alumnae Association, to Pursue a Course in Administration,
Supervisory, or Public Health Work at Teachers College,
Columbia University, to the Student Having
the Highest Average in Scholarship

JANE ISABELLE SLICK

The Elizabeth Collins Lee Prize to the Student Having
the Second Highest Average in Scholarship

MINA GERALDINE HOOE

The Mrs. John L. Whitehurst Prize for the
Highest Average in Executive Ability

NAOMI GRACE HERSH

The Edwin and Leander M. Zimmerman Prize for Practical Nursing and for
Displaying the Greatest Interest and Sympathy for the Patients

MINA GERALDINE HOOE

The University of Maryland Nurses' Alumnae Association Pin, and Member-
ship in the Association, for Practical Nursing and Executive Ability

ELEANOR FRANCES STAUFFER

School of Pharmacy

Gold Medal for General Excellence

BERNARD LEON ZENITZ

The William Simon Memorial Prize for Proficiency in Practical Chemistry

LEONARD RAPOPORT

The L. S. Williams Practical Pharmacy Prize

FRANK JOSEPH LIEB

The Conrad L. Wich Botany and Pharmacognosy Prize

BERNARD LEON ZENITZ

Certificates of Honor

LEONARD RAPOPORT

FRANK JOSEPH LIEB

SYLVAN E. BECK

REGIMENTAL ORGANIZATION, RESERVE OFFICERS' TRAINING CORPS, 1937-1938

COLONEL BENJAMIN C. McCLESKEY, Commanding
 LIEUTENANT COLONEL ROBERT L. WALTON, Second-in-Command
 CAPTAIN JOSEPH P. HAIMOVICZ, Regimental Training and Liaison Officer
 CAPTAIN ROBERT E. BAKER, Regimental Adjutant

FIRST BATTALION

MAJOR GEORGE A. BOWMAN, Commanding
 SECOND LIEUTENANT ALVIN B. PECK, Battalion Adjutant

COMPANY "A"

Captain Ralph A. Collins
 1st Lieut. John R. Browning
 2nd Lieut. Ralph R. Ravenberg

COMPANY "B"

Captain Samuel W. Reeves,
 III.
 2nd Lieut. John C. Lynham
 2nd Lieut. Herbert W. Baker

COMPANY "C"

Captain Charles L. Downey
 2nd Lieut. Frank T. DeArmey
 2nd Lieut. John J. Egan

SECOND BATTALION

MAJOR BENJAMIN B. SHEWBRIDGE, Commanding
 SECOND LIEUTENANT JOHN E. MOORE, Battalion Adjutant

COMPANY "D"

Captain Raymond S. Put-
 man
 1st Lieut. Harold W. Smith
 2nd Lieut. Henry T. Con-
 verse

COMPANY "E"

Captain Frederick M.
 Bishoff
 2nd Lieut. Paul R. Peffer
 2nd Lieut. Perry I. Hay

COMPANY "F"

Captain Robert L. Mattingly
 2nd Lieut. Ross W. Shearer
 2nd Lieut. John S. Jacobs

THIRD BATTALION

MAJOR D. BRUCE McFADDEN, Commanding
 *FIRST SERGEANT WARREN P. DAVIS, Acting Battalion Adjutant

COMPANY "G"

Captain John L. Schutz
 2nd Lieut. James B. Berry
 2nd Lieut. Joseph E. Keller

COMPANY "H"

Captain William C. Bryant
 2nd Lieut. Charles C.
 Heaton
 2nd Lieut. Robert B. Barnett

COMPANY "I"

Captain Ralph W. Keller
 2nd Lieut. Fred D. Sisler
 2nd Lieut. Donald R. Rich-
 ardson

FOURTH BATTALION

MAJOR KENNETH G. BELT, Commanding
 *FIRST SERGEANT JAMES M. LANIGAN, Acting Battalion Adjutant

COMPANY "K"

Captain William J. Mc-
 Williams
 1st Lieut. Warren D. Hughes
 2nd Lieut. Edwin D. Long

COMPANY "L"

Captain H. Malcolm Owens
 1st Lieut. Charles H. Pierce
 2nd Lieut. John F. Wolf

COMPANY "M"

Captain William B. Mullett
 1st Lieut. Clay W. Shaw
 2nd Lieut. Leon R. Yourtee

CADET BAND

*FIRST SERGEANT WALTER L. MILLER

Band under the direction of Master Sergeant Otto Siebeneichen, Retired, formerly with the Army Band, Washington Barracks, Washington, D. C.

*Non-Commissioned Officers.

NON-COMMISSIONED OFFICERS

COMPANY "A"

John A. Farrall

Ned H. Oakley
 Lewis N. Tarbett

Sigmund Gerber

FIRST BATTALION COMPANY "B"

First Sergeants
 John G. Freudenberger

Platoon Sergeants
 John J. DeArmey
 Fred A. Soule

Sergeant Guides
 Robert E. Krafft
 James W. Ireland
 Robert L. Hart

COMPANY "C"

Byron L. Carpenter

John H. Beers
 Van S. Ashmun

SECOND BATTALION

COMPANY "E"

First Sergeants
 Robert Gottlieb

Platoon Sergeants
 Harold H. Essex
 Fred H. Denney

Sergeant Guides
 Frank H. Cronin

COMPANY "F"

Lewis A. Jones

Herman P. Hall
 Cecil L. Harvey

Thomas L. Wilson

THIRD BATTALION COMPANY "H"

First Sergeants
 Don P. Strausbaugh

Platoon Sergeants
 Fred W. Perkins
 Chas. W. Weidinger

Sergeant Guides

COMPANY "I"

Elgin W. Scott

George D. Allen

Sidney S. Stabler

FOURTH BATTALION

COMPANY "L"

First Sergeants
 Benjamin Alperstein

Platoon Sergeants
 Elliott B. Robertson
 Thomas J. Capossela

Sergeant Guides
 Luther E. Mellen

COMPANY "M"

Frederic M. Hewitt

George E. Seeley
 William B. Yates

COMPANY "D"

Harvey W. Kreuzberg

Elies Elvove
 Fred T. Bishopp

COMPANY "G"

John W. Stevens

William F. Howard

John J. Gude

COMPANY "K"

Francis J. Zalesak

William B. Davis
 Robert J. O'Neill

Richard E. Kern

Register of Students, 1937-1938
COLLEGE OF AGRICULTURE

SENIOR CLASS

Baynes, William C., Washington, D. C.	Johnston, Fred A., Takoma Park
Bialek, Lillian, Washington, D. C.	Keller, Charles E., Middletown
Bowie, Oden, Mitchellville	Kuhn, Albin O., Woodbine
Buchholz, James H., Catonsville	Leighty, Raymond V., Arlington, Va.
Caplan, Raphael F., Millers	Lewis, Glen W., Lantz
Carter, Henry H., Rockville	Lung, Ernest H., Smithsburg
Carver, Ann E., Perryville	Marche, William T., Hyattsville
Clark, Ralph E., Dundalk	Price, James W., Jr., Catonsville
Connelly, John V., Hartford, Conn.	Ravenburg, Ralph R., Edgewater
Converse, Henry T., Jr., Beltsville	Ruble, Kyle, Poolesville
Devakul, Debriddhi, Baugkok, Siam	Schutz, J. Logan, Washington, D. C.
Downey, Charles L., Williamsport	Seabold, G. William, Jr., Glyndon
Fisher, Elwood G., Washington, D. C.	Shaffer, Charles H., Jr., Washington, D. C.
Franzoni, Joseph D., Washington, D. C.	Shaw, Clay W., Stewartstown, Pa.
Garletts, Merle A., Selbysport	Sisler, Fred D., Washington, D. C.
Gayhart, Harold E., Beltsville	Skinner, Calvin L., Sudlersville
Gibbs, William E., Hyattsville	Smith, Harold W., Baltimore
Gilbertson, Warren H., Bladensburg	Steiner, Wilmer W., Washington, D. C.
Goldsmith, John S., Allen	Stoddard, David L., Hyattsville
Gottwals, Abram Z., Goldsboro	Wall, Dorothy S., Catonsville
Grodjesk, Bernice, Jersey City, N. J.	Williams, Donald H., Washington, D. C.
Guill, John H., Jr., Takoma Park	Wintermoyer, J. Paul, Hagerstown
Haynes, Anne M., Trenton, Tenn.	Wise, S. Betty, Relay
Haynes, Sally T., Trenton, Tenn.	Yeager, Sara A., Baltimore
Henkin, Allen E., Washington, D. C.	

JUNIOR CLASS

Astle, Charles C., Rising Sun	Miller, Thomas E., Washington, D. C.
Brown, Allan H., University Park	Muma, Martin H., Cumberland
Brownell, James F., Washington, D. C.	Nicholls, Robert D., Boyds
Burnet, James H., Charlottesville, Va.	Pailthorp, Robert W., Takoma Park
Cohen, Charlotte F., E. Orange, N. J.	Peaslee, Joseph K., Washington, D. C.
Crane, Julian C., College Heights	Phillips, Clarence W., Princess Anne
DeCecco, James N., Vienna	Potter, Lloyd A., Bethesda
Eck, Clarence A., Overlea	Remsberg, George C., Jr., Middletown
Faith, Lawrence S., Hancock	Schmier, Charles N., Woodlawn
Galbreath, Paul M., Street	Secrest, John P., Brentwood
Gupton, Ewing L., Berwyn	Shearer, Ross W., College Park
Harris, George J., Lonaconing	Shoemaker, Robert A., Woodbine
Hepburn, Edward W., Worton	Steinberger, Janet I., Baltimore
Heubeck, Elmer, Jr., Baltimore	Stevenson, Frank V., Takoma Park
Hite, Norborne A., Port Deposit	Sutton, Richard S., Kennedyville
Jarrell, William E., Ridgely	Talcott, Ellen E., Washington, D. C.
Johnson, Edwin R., Germantown	Ward, Stevenson A., Havre de Grace
Jones, Kenneth F., Newport, Del.	Weber, N. Bond, Oakland
Kramer, Amihud, Baltimore	Wheatley, Marion L., Vienna
Lapidus, Stanley I., Baltimore	Willingham, Patricia M., Hyattsville
Lowe, Laban R., Pylesville	Winkler, Fred B., Chevy Chase
Lynt, Richard K., Jr., Washington, D. C.	Witt, Detlef J., Anacostia, D. C.
Martin, Oscar C., Jr., Rockville	Wood, E. Wade, Washington, D. C.
Matthews, Harry B., Jr., Salisbury	Wood, Edward P., College Park
McFarland, Frank R., Jr., Cumberland	Yates, William B., Cambridge
Miller, Lee A., Hyattsville	

SOPHOMORE CLASS

Ahalt, Louis F., Middletown	Lichliter, Lawrence D., Washington, D. C.
Aist, Wilmer F., Jessup	Lips, Robert W., Baltimore
Baker, Alva S., Catonsville	Lipsitz, Benjamin, Baltimore
Beneze, George C., Annapolis	MacLeod, Mary F., Washington, D. C.
Biron, Bobbie, Salisbury	McGregor, James A., Worton
Bothe, Henry C., Baltimore	Meade, DeVoe K., Hyattsville
Brinckerhoff, Mary L., Lansdowne, Pa.	Menke, Margaret C., Washington, D. C.
Brosius, John W., Jr., Adamstown	Miller, Alan R., Washington, D. C.
Butler, Walter M., Jr., Poolesville	Morris, Joseph B., Port Deposit
Cotterman, Harold F., College Park	Nevares, Oscar W., Baltimore
Crist, Howard G., Jr., Glenelg	Oakley, Ned H., Washington, D. C.
Daugherty, Edward B., Jr., Delmar	Phelps, R. Nelson, McDonogh
Davis, George H., Berlin	Pohlhaus, Joseph N., Baltimore
Davis, Virginia E., Washington, D. C.	Punnett, Ruth S., Leonia, N. J.
Edmonds, Charles S., Clements	Redding, William V., Street
Ermold, John G., Ellicott City	Rice, Floyd E., Takoma Park
Fitzwater, E. Wayne, Swanton	Robbins, MacIntyre C., Washington, D. C.
Forsyth, Carroll M., Friendsville	Rudy, Arthur M., Middletown
Foster, Vernon R., Parkton	Ryan, Hilda H., Washington, D. C.
Fullington, Page D., Washington, D. C.	Saperstein, Paul, Baltimore
Gatch, Benton R., Baltimore	Sheibley, David F., Newport, Pa.
Gude, John J., Hyattsville	Stabler, Virginia N., Ashton
Hauver, Roland T., Myersville	Stevens, Robert L., Street
Hess, Kenneth S., Washington, D. C.	Stouffer, Frances J., Berwyn
Huffer, Sarah V., Boonsboro	Sturchio, Lawrence E., Newark, N. J.
James, Lynwood B., Chevy Chase	Swann, A. Hope, Leonardtown
Janes, William N., Oxon Hill	Talbott, Dorothy E., Clarksville
Jehle, John R., Hyattsville	Tarbett, Lewis N., Takoma Park
Kefauver, Fred S., Middletown	Taylor, Frank W., Ridgely
Keller, J. Hugh, Middletown	Waite, Malden D., Odenton
Kilby, Wilson W., Conowingo	Wallace, John A., Bethesda
Kluge, Gordon L., Washington, D. C.	Wardman, Joseph W., Washington, D. C.
Koontz, Robert K., Jr., Washington, D. C.	Whitall, Sarah O. M., Crownsville
Ladson, Marcia, Rockville	Winter, Joseph S., Washington, D. C.
Lee, Whiting B., Hyattsville	Zimmerman, Robert E., Ellicott City
Leise, Joshua M., Washington, D. C.	

FRESHMAN CLASS

Anderson, Harry W., Washington, D. C.	Clark, George E., Jr., Havre de Grace
Astle, Norris C., Rising Sun	Clendaniel, Charles E., Jr., Stewartstown, Pa.
Bailey, Howard M., Parkton	Cohen, Abraham, Washington, D. C.
Barber, Charles A., Jr., Washington, D. C.	Crist, Lee S., Glenelg
Bast, Charles R., Washington, D. C.	Cruikshank, Thomas C., Galena
Beattie, James M., Beltsville	Custis, John K., Washington, D. C.
Bierer, Donald S., Brooklyn, N. Y.	deAlba, Jorge, Washington, D. C.
Bollinger, Nevin C., Hyattsville	Detorie, Francis J., Washington, D. C.
Bosley, Glenn M., Sparks	DiGuilian, Charles A., Hillside
Boyle, James F., Washington, D. C.	Dodge, Harry P., Takoma Park
Brooks, Philip M., Chestertown	Donn, Marian S., Hollywood
Burall, Jesse E., Baltimore	Dowling, Vernon L., Annapolis
Burkom, Philip, Baltimore	Doying, Will B., Washington, D. C.
Burton, Ralph V., Baltimore	Elkins, William S., Silver Spring
Cabrera, Rafael L., Washington, D. C.	Ernst, Chester G., Clear Spring
Calhoun, John K., Westminster	Eyler, Laura H., Baltimore
Calver, Georgianna E., North Beach	Firmin, William E., Washington, D. C.
Carl, Edmund O., Washington, D. C.	Forbes, Ian, Washington, D. C.
Cawley, Wilbert H., Denton	
Chance, Charles M., Grasonville	

Garrett, John G., Baltimore
 Gladfelter, Armand L., Seven Valleys, Pa.
 Gordon, Jack L., Riverdale
 Gunnell, John F., Takoma Park
 Hall, Bruce M., College Park
 Harbaugh, Mildred B., Bagley
 Harcum, Eduard W., Mardela
 Harwood, Elliott B., Baltimore
 Hastings, Joseph W., Cambridge
 Hoffman, Frank H., Edmonston
 Hollis, Marvin F., Denton
 Hoshall, George W., Parkton
 Husted, James V., Silver Spring
 Jackson, Harry H., Brentwood
 Jacques, Samuel A., Smithsburg
 Jerome, Wayne B., Hancock
 Johnson, David O., Takoma Park
 Jones, Bradley H., Sharon
 Keeler, John, Washington, D. C.
 Kelly, David C., Fort Meade
 Kenney, Francis V., Chevy Chase
 Kolb, Robert W., Baltimore
 Krause, Eugene F., Gambrills
 Krause, Robert M., Gambrills
 Leister, Richard A., Washington, D. C.
 Levy, Stanley, Baltimore
 Libeau, Clayton P., Manassas, Va.
 Linsley, Herbert C., Bridgeport, Conn.
 Marshall, Donald P., Berlin
 Marshall, Earla B., Hyattsville
 Martin, Calvin S., Rockville
 Mason, Joseph L., Chevy Chase
 McCann, David R., Silver Spring
 Merritt, Joseph S., Jr., Dundalk
 Meyer, Robert C., Baltimore
 Miller, Harry G., Anacostia, D. C.
 Miller, Norman A., Jr., Hyattsville
 Miller Robert J., Baltimore
 Miller, Vernon H., Laurel
 Miller, William R., Washington, D. C.
 Moore, Stanley W., Sandy Spring
 Mullady, John T., Washington, D. C.
 Myers, John W. H., Baltimore
 Nicholson, Clark O., Dickerson
 Nordeen, Carl E., Jr., Mt. Rainier
 Oursler, Charles G., Spencersville

Pelczar, Henry W., Stemmers Run
 Pinkerton, William F., Halethorpe
 Porter, Bettie V., Silver Spring
 Rappleye, Robert D., Washington, D. C.
 Rea, William, Washington, D. C.
 Read, William A., Silver Spring
 Reed, Walter F., Dundalk
 Rehberger, Edward A., Jr., Baltimore
 Reiblich, Karl F., Woodlawn
 Reid, John T., Siebert
 Reid, Richard S., Kensington
 Rice, Dorothy T., Baltimore
 Ritzenberg, Albert, Washington, D. C.
 Roby, Thomas O., Silver Spring
 Ryan, John J., Ednor
 Sanner, Staley V., Frederick
 Schaffer, Joseph D., Laurel
 Scherer, Charles R., Towson
 Schilling, John M., Baltimore
 Scoville, Raymond M., Silver Spring
 Shelton, Emma, Chevy Chase
 Simonds, Warren O., Riverdale
 Skinner, James H., Barclay
 Smith, Donald F., Chevy Chase
 Smith, Wilson L., Jr., Stevenson
 Stalcup, Robert E., Brentwood
 Stiles, Frank C., Rockville
 Suit, William J., Washington, D. C.
 Treakle, Hugh C., Street
 Vogt, George B., Catonsville
 Waite, Alan K., College Park
 Wannan, Charles W., Jr., Washington, D. C.
 Warfield, Bernard D., Jr., Woodbine
 Waters, Perrie W., Rockville
 Watkins, Charles B., Baltimore
 Watson, William W., Catonsville
 Weber, Jack E., Oakland
 Wehrle, John S., Altoona, Pa.
 Weiss, Boyd F., Jr., Stroudsburg, Pa.
 Weyrich, William H., Jr., Washington, D. C.
 Whiteford, William G., Baltimore
 Wyvell, Janet E., Washington, D. C.
 Zentz, Monroe H., University Park

PART TIME

Bigoness, Laura M., Landover
 Brandt, Karl W., College Park
 Brown, James S., Grand Harbour, N. B.,
 Canada
 Carnie, Elinore W., Alexandria, Va.
 Cohill, Benjamin M., Hancock
 Conrad, Jean L., Annapolis
 Cunningham, Ruth J., Cambridge
 Fugitt, Donald J., Washington, D. C.
 Gleckler, Norman L., Riverdale

Gordon, Thomas W., Baltimore
 Ingalls, Boyd, Washington, D. C.
 Lewald, Ella M. T., Laurel
 Posey, Walter B., Upper Marlboro
 Reed, James M., Silver Spring
 Selby, Rosemary B., Bethesda
 Wells, Julian W., Beltsville
 Wilcox, Marguerite S., Washington, D. C.
 Zabel, John F., Washington, D. C.

UNCLASSIFIED

Bruns, Lawrence A., Relay
 Katsura, Saburo, Washington, D. C.

Newman, Ernest H., Beaver Heights

COLLEGE OF ARTS AND SCIENCES

SENIOR CLASS

Ackerman, Julius E., Baltimore
 Atkin, Maurice D., Washington, D. C.
 Baker, Herbert W., Edgemont
 Baker, Robert E., Washington, D. C.
 Barnett, Robert E., Washington, D. C.
 Beebe, Charles H., College Park
 Behm, Carl, Baltimore
 Belt, Kenneth G., Washington, D. C.
 Benton, Charles L., Jr., Linthicum Heights
 Berry, James B., Jr., Bennings, D. C.
 Binswanger, Charles A., Baltimore
 Boyer, Roswell R., College Park
 Brigham, David L., Ashton
 Bredekamp, Marriott W., Washington, D. C.
 Brodsky, Alex E., Baltimore
 Brown, Thomas C., Havre de Grace
 Burton, Robert J., Cumberland
 Carrico, Norman, Cumberland
 Cayton, William I., Brooklyn, N. Y.
 Cohen, Gertrude C., Passaic, N. J.
 Cooke, Charles H., Washington, D. C.
 Cooley, Eleanor G., Berwyn
 Corridon, Jack R., Washington, D. C.
 Coster, William F., Elmhurst, N. Y.
 Crastnopol, Philip, Newark, N. J.
 Creamer, Robert M., Baltimore
 Donohue, Mildred D., Baltimore
 Dow, Mary F., Amarillo, Texas
 Epstein, Edwin, Centreville
 Ernest, Lois E., Kensington
 Evans, Frank D., Chevy Chase
 Friedman, Marion, Baltimore
 Greer, Margaret A., Bel Air
 Gunther, Francis J., Washington, D. C.
 Haimovicz, Joseph P., Washington, D. C.
 Hamburger, Morton L., Baltimore
 Harcum, Bettie, Salisbury
 Hay, Perry I., Washington, D. C.
 Henderson, Joseph, Rockville
 Hoagland, Philip L., Washington, D. C.
 Hoenes, Sophia W., Baltimore
 Hoffman, Mary J., Relay
 Hughes, Warren A., Washington, D. C.
 Jackson, Frank H., Chevy Chase
 Jacobs, Bernice E., Baltimore
 Jacobs, Nathaniel J., Baltimore
 Johns, Malcolm L., Washington, D. C.
 Johnson, William R., Baltimore
 Jones, Robert W., College Park

Kardash, Theodore, Baltimore
 Keller, Joseph E., Washington, D. C.
 Kempton, Christine, Lanham
 Lansford, Wilson A., Bethesda
 Kramer, Bernard, Baltimore
 Lawson, J. Keith, Washington, D. C.
 Lehmann, Theodore, Baltimore
 Lewis, Barbara R., Washington, D. C.
 Liberato, Venancio Q., Riverdale
 Lindsay, Gorton P., Baltimore
 Linn, Lois B., University Park
 Littleford, Rita T., Washington, D. C.
 Long, Edwin D., Westover
 Lowitz, Irving R., Baltimore
 Marriott, Margaret, Washington, D. C.
 McCleskey, Benjamin C., College Park
 McGoury, Thomas E., Odenton
 McLaughlin, Arlene M., Baltimore
 McWilliams, William J., Indian Head
 Miller, Harry A., Washington, D. C.
 Miller, Mary E., Baltimore
 Molofsky, Bernice, Baltimore
 Moore, John E., Ellicott City
 Mullett, William B., Silver Spring
 Owens, James D., Linthicum Heights
 Park, C. A., Jr., Washington, D. C.
 Paterson, Jean, Towson
 Peffer, Paul R., Washington, D. C.
 Phillips, William S., Jr., Washington, D. C.
 Potts, B. Sheba, Baltimore
 Pratt, Stanford C., Washington, D. C.
 Richardson, Donald W., Washington, D. C.
 Richardson, Vaughn E., Willards
 Sachs, Harold, Washington, D. C.
 Sadle, Alexander, Washington, D. C.
 Schiff, Adelaide S., Allentown, Pa.
 Schwartz, Harry, Baltimore
 Shaffer, Betty B., Wilmington, Del.
 Shewbridge, Benjamin B., Baltimore
 Snyder, Roger W., Hagerstown
 Sokal, Mitchell, Brooklyn, N. Y.
 Spruill, William T., Brandywine
 Staire, John S., College Park
 Stein, Martin K., Baltimore
 Stevens, Evelyn M., Laurel
 Thies, William N., Washington, D. C.
 Thomas, Margaret G., Riverdale
 Thompson, Robert H., Washington, D. C.

Tolker, Ethel B., Silver Spring
 Townsend, Mary E., Frostburg
 Tunis, John O., Jr., Pompton Lakes, N. J.
 Wahl, Carleton W., Silver Spring
 Waldman, Sylvia R., Hyattsville
 Watson, George B., Towson
 Wells, Robert L., Gaithersburg
 Werner, Janet, Baltimore
 White, M. Maxine, Dickerson

White, Robert P., College Park
 Whiton, Alfred C., Brentwood
 Wilson, Ruby E., Mt. Rainier
 Wojtczuk, John A., Baltimore
 Wolf, John F., Hyattsville
 Wolfe, Elizabeth L., Stephens City, Va.
 Wood, George F., Washington, D. C.
 Woodell, John H., Baltimore
 Young, Edmond G., Baltimore

JUNIOR CLASS

Aarons, Ralph, Baltimore
 Allen, George D., Takoma Park
 Ansporn, Harry D., Washington, D. C.
 Anthony, E. Rumsey, Jr., Chestertown
 Aring, Bernice C., Baltimore
 Auerbach, Lawrence W., Brooklyn, N. Y.
 Barber, Elizabeth C., Gaithersburg
 Barthel, Robert A., Catonsville
 Beers, John H., Washington, D. C.
 Benbow, Robert P., Sparrows Point
 Bishopp, Fred T., Silver Spring
 Blalock, Georgia, Jonesboro, Ga.
 Blanck, Katherine V., Washington, D. C.
 Borlik, Ralph, Washington, D. C.
 Bowen, Charles V., Centreville
 Bowman, John D., Rockville
 Bowyer, Ernestine C., Washington, D. C.
 Bradley, Robert J., Hyattsville
 Broadwater, Norman I., Oakland
 Campbell, Gordon H., Washington, D. C.
 Cannon, Robert P., Salisbury
 Capossela, Thomas J., Washington, D. C.
 Carleton, Harold B., Washington, D. C.
 Carson, Mary K., Chevy Chase
 Checket, Irene R., Baltimore
 Clark, John T., Greensboro
 Clugston, Carolyn D., University Park
 Cohen, Harry, Baltimore
 Cole, William H., Towson
 Collins, Roberta E., Berwyn
 Comer, Florence R., Hyattsville
 Cooke, Alfred A., Hyattsville
 Cornell, Ellner A., Brentwood
 Crane, Warren E., Loch Arbour, N. J.
 Crocker, L. Eleanor, Baltimore
 Cronin, Mary E., Aberdeen
 Dantzig, Henry P., Hyattsville
 Davies, Thomas E., Blossburg, Pa.
 Davis, Gayle M., St. John, N. B., Canada
 Denney, Fred H., Bladensburg
 Domenici, Maurice R., Hagerstown
 Duley, Oscar R., Croome Station
 Dwiggin, Roscoe D., College Park
 Edlavitch, Robert, Hyattsville
 Edwards, John B., Hyattsville
 Eierman, George H. P., Baltimore
 Evans, Lydia M., Chevy Chase

Faul, R. Virginia, Washington, D. C.
 Frey, Louis M., Mt. Rainier
 Fulks, Moir M., Rockville
 Ganzert, Mary-Louise, Washington, D. C.
 Gilbertson, Kenneth G., Bladensburg
 Goldberg, Alvin, Brooklyn, N. Y.
 Goldman, Leon, Washington, D. C.
 Gough, James J., Chaptico
 Grave de Peralta, Jose I., Camaguey, Cuba
 Greenfield, Arthur, Yonkers, N. Y.
 Groff, William D., Jr., Owings Mills
 Grotlich, Louise K., Silver Spring
 Hall, N. Irene, College Park
 Hardy, Jerome S., Silver Spring
 Hart, Margaret F., Baltimore
 Heaton, Charles C., Baltimore
 Henry, Frances L., Washington, D. C.
 Hirsh, Harold L., Washington, D. C.
 Honigman, Alvin H., Baltimore
 Hoover, Lawrence G., Takoma Park
 Hortman, William F., Jr., Washington, D. C.
 Hunter, Frances E., Chevy Chase
 Ireland, Julius W., Baltimore
 Irwin, Robert C., Lyndhurst, N. J.
 Jacobs, John S., Washington, D. C.
 James, Helen M., Chevy Chase
 Jarboe, James P., Bel Alton
 Jewell, Benjamin A., Grasonville
 Johnson, Clifford E., Washington, D. C.
 Johnson, Vivian H., Baltimore
 Jones, Lewis A., College Park
 Keefer, Ruth L., Takoma Park
 Kern, Richard E., Braddock Heights
 Kraemer, Edwin, Hackensack, N. J.
 Krynitsky, John A., Chevy Chase
 Kundahl, Paul C., Germantown
 Laws, Victor H., Parsonsburg
 Leard, Mary D., Norfolk, Va.
 Lee, Richard E., Landover
 Levine, Ethel, Brooklyn, N. Y.
 Lewald, James H., Laurel
 Link, Etta C., Halethorpe
 Luddecke, Hugh F., Montclair, N. J.
 MacDonald, Charles R., Cumberland
 Maslin, Margaret L., Port Chester, N. Y.

Maxwell, Francis T., Towson
 McCarthy, John J., Washington, D. C.
 McClayton, M. Elaine, Baltimore
 McFadden, Duncan B., College Park
 McFarlane, Samuel B., Lonaconing
 McGoogan, Malcolm T., Fitzgerald, Ga.
 Mears, Thomas W., Washington, D. C.
 Mehl, Joseph M., Washington, D. C.
 Mellen, Luther E., Baltimore
 Meng, Ralph H., Perry Point
 Mermelstein, Daniel M., Baltimore
 Miller, J. William, Boonsboro
 Miller, Walter L., Washington, D. C.
 Miller, William L., Baltimore
 Neiman, Robert M., New York, N. Y.
 O'Neill, Richard J., Woodlawn
 Oppenheimer, Beverly C., Brooklyn, N. Y.
 Orofino, Caesar F., North Pelham, N. Y.
 Parks, John A., Jr., Cumberland
 Perdue, Herman E., Parsonsburg
 Person, Gladys M., Chevy Chase
 Pitzer, James E., Cumberland
 Pollard, Kitty L., Baltimore
 Prettyman, Dan T., Trappe
 Price, Robert, Catonsville
 Raisin, Herman S., Brooklyn, N. Y.
 Reeves, Samuel W., Ft. George G. Meade
 Reindollar, Helen L., Baltimore
 Rockkind, Joseph M., Baltimore
 Rosenstein, Louis N., Baltimore
 Sadowsky, Wallace H., North East

Samson, Elizabeth, Takoma Park
 Schneider, Howard, Yonkers, N. Y.
 Scott, Mary Jane, Hyattsville
 Seitz, Charles E., Glen Rock, Pa.
 Shelton, John A., Chevy Chase
 Sherwood, William T., Washington, D. C.
 Shmuner, Daniel P., Baltimore
 Silberg, I. Walter, Baltimore
 Simon, Fred L., Jr., Baltimore
 Spalding, Joseph P., Silver Spring
 Staken, Richard J., Jr., Midland
 Stedman, Samuel F., Catonsville
 Stegmaier, James G., Cumberland
 Stoddard, Sara L., Hyattsville
 Stup, Charles R., Frederick
 Survil, Anthony A., Baltimore
 Todd, Ira T., Crisfield
 Towson, William O., Baltimore
 Trundle, Lula S., Ashton
 Turner, Katherine L., Washington, D. C.
 Warfield, Gustavus A., College Park
 Weinblatt, Mayer, Baltimore
 Wharton, Edward M., College Park
 White, William M., Washington, D. C.
 Williams, Arthur E., Jr., Salisbury
 Winn, Solomon, Baltimore
 Wolf, Frances, Washington, D. C.
 Woodwell, Lawrence A., Kensington
 Young, Jerome L., Washington, D. C.
 Zalesak, Francis J., College Park
 Zimmerman, Loy M., Baltimore

SOPHOMORE CLASS

Abellera, Thomas R., Riverdale
 Abrams, Alan D., Beckley, W. Va.
 Acree, George W., Washington, D. C.
 Aiello, Catherine C., Hyattsville
 Aitcheson, William W., Berwyn
 Albert, Earl A., Waterbury, Conn.
 Allen, John J., Hagerstown
 Almony, Ruth E., White Hall
 Askin, Nathan, Baltimore
 Axtell, Harold A., Jr., Takoma Park
 Badenhoop, H. John, Baltimore
 Baldwin, Agnes C., Berwyn
 Ballard, Emilie M., Hyattsville
 Balmer, C. Blum, Lyndhurst, N. J.
 Barnes, Richard K., Sykesville
 Barre, L. Bernice, Washington, D. C.
 Barthel, William F., Catonsville
 Bastian, Charles W., Jr., Washington, D. C.
 Beamer, Francis X., Washington, D. C.
 Benson, Susan E., Relay
 Bernstein, Norman R., Washington, D. C.

Birmingham, Michael J., Jr., Sparrows Point
 Bloom, Morton I., Baltimore
 Blum, Alice M., Baltimore
 Blumenstein, Carl R., Washington, D. C.
 Blundon, Kenneth E., Forest Glen
 Bollinger, Phyllis G., College Park
 Bond, Marian W., Washington, D. C.
 Bond, William R., Relay
 Bonnett, Howard G., Washington, D. C.
 Booth, Muriel M., Baltimore
 Borden, Burton D., Washington, D. C.
 Bowers, Leslie L., Washington, D. C.
 Bowman, Leonard C., Leesburg, Va.
 Bragaw, Josephine M., Augusta, Ga.
 Brainerd, William F., III, Dundalk
 Brenner, Helen T., Baltimore
 Britton, Rose E., Washington, D. C.
 Brooks, William R., Pikesville
 Brown, Harriet R., Havre de Grace
 Brown, John W., Jr., Bethesda
 Brown, Robert B., Bethesda

Brown, Robert S., W. Hazleton, Pa.
Brown, William E., Jr., Brooklyn, N. Y.
Burk, Joseph, Linthicum Heights
Burns, Robert B., Havre de Grace
Burrage, Margaret D., Silver Spring
Carrico, Thomas C., Bryantown
Cary, Charles G., Riverdale
Case, Richard W., Berwyn
Chaney, Jack W., Annapolis
Chaney, Robert J., College Park
Chumbris, Angelos N., Washington, D. C.
Chumbris, Cleom G., Washington, D. C.
Clark, Caroline C., Washington, D. C.
Clarke, Elizabeth S., Washington, D. C.
Clayman, Stanley, Washington, D. C.
Cleaver, William F., Washington, D. C.
Clifford, James L., Jr., Baltimore
Close, Horace W., Washington, D. C.
Coe, Paul M., Washington, D. C.
Cole, William P., Towson
Coleman, Albert S., Washington, D. C.
Collison, Margaret, Takoma Park
Cook, H. Irvin, Hyattsville
Coombs, Albert H., Jr., Washington, D. C.
Council, Wilford A. H., Jr., Baltimore
Coyle, Margaret L., Upper Marlboro
Crisafull, Joseph, Washington, D. C.
Daneker, Million, Bel Air
Danforth, F. Elaine, Baltimore
Daudt, Louis R., Wilmington, Del.
Davidson, Oscar M., Baltimore
Davis, Aloyuise I., Havre de Grace
Davis, W. Bruce, Silver Spring
Deeley, Haskin U., Baltimore
Dennis, Dorothy C., Woodbury, N. J.
Dieffenbach, Albert W., Garrett Park
Dietrich, Clayton A., Baltimore
Dieudonne, Erasmus L., Jr., Bladensburg
Dillon, Harold, Baltimore
Dippel, Francis X., Baltimore
Dorfman, Sidney A., Washington, D. C.
Dorsey, Charlotte T., Hyattsville
Dunie, Mack W., Baltimore
Edmonds, William R., Baltimore
Edyvean, John H., Baltimore
Epperson, John W. W., Baltimore
Esmond, William G., Washington, D. C.
Ettin, Pearl, W. Englewood, N. J.
Farkas, Robert W., York, Pa.
Fawcett, Howard H., Cumberland
Fernald, Llewellyn K., Washington, D. C.
Fetty, John H., Takoma Park
Finlayson, Thomas R., Bethesda
Fitzgerald, Marie M., Washington, D. C.
Flax, George L., Washington, D. C.
Freedman, Leona S., Baltimore
Freemire, Elmer L., Takoma Park
Gardner, William L., Jessup
Gay, Martha E., Washington, D. C.

Gebhardt, Charles M., Silver Spring
Gifford, John F., Washington, D. C.
Gile, John H., Washington, D. C.
Goldstein, Armand M., Baltimore
Goller, Carl, Baltimore
Goodrich, Edward E., Hyattsville
Gratz, Ezra B. A., Brooklyn, N. Y.
Greenwood, Judith K., Washington, D. C.
Griffith, Mary L., College Park
Gubnitsky, Albert, Baltimore
Hagan, William B., Allen
Hall, Marjorie E., Washington, D. C.
Hambleton, Harry B., Washington, D. C.
Harlan, Edwin F., Riverdale
Harrington, Mary J., Washington, D. C.
Harris, Joseph, Baltimore
Harris, Joseph R., Jr., Bethesda
Harris, Samuel, Baltimore
Harrover, M. Elizabeth, Manassas, Va.
Hayman, Harry G., Jr., Salisbury
Hayman, John B., Pocomoke
Haynes, Joyce W., Silver Spring
Healey, James W., Hagerstown
Hellstern, Charlotte M., Hudson Heights,
N. J.
Henderson, Adrienne M., Chevy Chase
Himelfarb, Norman H., Washington, D. C.
Hirsch, Albert, Frederick
Hodson, Virginia E., Baltimore
Hoffman, Jean A., Hagerstown
Holt, Mary E., Washington, D. C.
Holzapfel, Norman M., Hagerstown
Houck, Roland V., Vineland, N. J.
Houff, Clifford G., Washington, D. C.
Hunter, Mary E., Chevy Chase
Hurley, John J., Landover
Hurley, Walter V., Hyattsville
Hutson, Paul G., Hagerstown
Hutton, Carroll S., Baltimore
Irvine, Ann H., Chicago, Ill.
Jackson, Lorraine V., College Park
Jett, Geraldine V., Chevy Chase
Johnson, Henry C., Washington, D. C.
Johnston, Margaret E., Washington, D. C.
Jones, Charles M., Cumberland
Jones, Rose I., College Park
Joseph, David R., Stamford, Conn.
Kammer, Charles E., Baltimore
Katz, Leonard R., Brooklyn, N. Y.
Kaufman, Daniel, Washington, D. C.
Kaufman, Ethel J., Brooklyn, N. Y.
Keagy, Raybern W., Washington, D. C.
Kemper, James D., Washington, D. C.
Keppler, Millicent M., Washington, D. C.
King, Elizabeth A., Washington, D. C.
King, James F., Baltimore
King, Vernon J., Lansdowne
Klinefelter, William E., Baltimore

Koenig, Ruth E., Baltimore
Kovitz, Armand, Baltimore
Kraft, Fulton, Washington, D. C.
Kraus, John W., Baltimore
Krepp, Martin W., Jr., Baltimore
Kummer, Stanley T., Baltimore
Langford, Bertha M., Washington, D. C.
Lawder, Robert C., Havre de Grace
Lawrence, George E., Hanover, Pa.
Lee, Richard M. C., Bethesda
LeFrak, Samuel J., Brooklyn, N. Y.
Lehman, Milton L., Baltimore
Leonard, James D., Chevy Chase
Levin, Harriett A., Baltimore
List, Leroy H., Baltimore
Lloyd, Edward M., Washington, D. C.
Lloyd, Eugene K., Jr., Rock Point
London, Wallace, Baltimore
Long, James W., Washington, D. C.
Long, Ruth E., Salisbury
Macdonald, Maitland, Washington, D. C.
Maddox, Franklin E., Jr., Glen Burnie
Magruder, Ruth T., Washington, D. C.
Marriott, Natalie, Washington, D. C.
Matthews, Edward A., Baltimore
McCauley, Harry R., Jr., Baltimore
McGinniss, Harry, Kensington
McManus, William H., Jr., Berwyn
Meakin, J. Leonard, Washington, D. C.
Mears, Frank D., Pocomoke
Meginniss, Stephen M., Baltimore
Meitzler, Elizabeth V., Frederick
Miller, Robert J., Washington, D. C.
Mintz, Milton D., Plainfield, N. J.
Mitchell, Alfred G., Baltimore
Molesworth, Carlton, Frederick
Mueller, J. Leo, Baltimore
Multz, Ben S., Capitol Heights
Neilson, Robert S., Baltimore
Nesbitt, Geraldine H., Baltimore
Newell, Robert T., Jr., Centreville
Nigro, James, Fort George G. Meade
Norman, Richard E., Hyattsville
Ostrow, Gertrude D., Washington, D. C.
Oswald, William B., Catonsville
Owens, Anna B., McDonogh
Owings, Noble L., Riverdale
Palmer, Carroll F., Washington, D. C.
Panciotti, Michael E., Sparrows Point
Papanicolas, James J., Washington, D. C.
Parks, Joseph A., Washington, D. C.
Parvis, Charles F., Baltimore
Paterson, Bess L., Towson
Payne, Frances E., Landover
Pearsall, Dorothy M., Washington, D. C.
Pearson, H. Ralph, St. Georges Island
Peregoff, Arthur, Frederick
Phillips, Jay M., Baltimore

Pickens, James L., Washington, D. C.
Pinas, Samuel R., Baltimore
Pollack, Ethel, Baltimore
Porter, Robert L., Ellerslie
Powell, Alwyn M., Baltimore
Prescott, Stedman, Rockville
Pyle, Mary E., Frederick
Rabak, Richard W., Washington, D. C.
Rangle, Raymond V., Baltimore
Raphel, Eugene V., Cumberland
Ray, Enos, Fair Haven
Reckord, John G., Baltimore
Remsburg, Charles G., Berwyn
Rice, Bernard, Baltimore
Rice, Helen F., Baltimore
Rieg, Mary, Washington, D. C.
Ringwald, Owen E., Hyattsville
Robie, William A., Billingsley
Rochlin, Martin, Baltimore
Rogers, Jerome S., Jr., Bethesda
Rogoff, Sidney, Nutley, N. J.
Rosen, Bernard L., Baltimore
Rosen, Martin, Fort Salonga, N. Y.
St. Clair, Betty D., College Park
Scates, Charles E., Washington, D. C.
Schenker, Samuel, Annapolis
Schoolfield, Nancy C., Pocomoke
Schwartz, Norton B., Spring Valley, N. Y.
Schwarz, John T., Sparrows Point
Seidel, David L., Takoma Park
Shaw, Edward L., Chevy Chase
Short, Katharine E., College Park
Siegel, Leo H., Nutley, N. J.
Silk, Claudia L., New Rochelle, N. Y.
Silverstein, David, Belmar, N. J.
Sindler, Millard S., Baltimore
Singer, Milton E., Baltimore
Skotnicki, Frank J., W. Hazleton, Pa.
Snyder, Eleanor S., Baltimore
Souder, William H., Washington, D. C.
Soule, Floyd A., Washington, D. C.
Springer, Earl V., Hagerstown
Steinbach, Morton, Baltimore
Steinberg, Douglas S., College Park
Sterling, Harold, Washington, D. C.
Stern, Harry W., Washington, D. C.
Stiefelmaier, Charles A., Clarksburg,
W. Va.
Stillings, Charles A., Baltimore
Stoddart, Adam T., Baltimore
Talcott, Worthington H., Washington,
D. C.
Tenny, Morgan L., Garrett Park
Terl, Armand, Baltimore
Thompson, Charles L., Baltimore
Thompson, Franklin L., Washington, D. C.
Tiller, Richard E., Washington, D. C.
Toomey, Edna P., Bladensburg

Tyser, Ralph J., Baltimore
 Usuda, Charles T., Bethesda
 Vaiden, Sara A., Baltimore
 Valenstein, Murray A., Baltimore
 Vollmer, Harry F., III, Baltimore
 Wade, John P., Jr., Washington, D. C.
 Wailes, Dorothea A., Baltimore
 Waingold, George, Cumberland
 Walterman, Edward, Greenfield Park, N. Y.
 Warfield, Mary D., College Park
 Waters, Robert W., Princess Anne
 Welsh, Helen O., Hyattsville

West, William V., Chevy Chase
 White, J. Gordon, Baltimore
 Williams, Don H., Washington, D. C.
 Wilson, Thomas L., Havre de Grace
 Wise, Gabrielle D., Relay
 Worgan, David K., Luke
 Wyatt, Henry F., Baltimore
 Yockelson, Bernard A., Washington, D. C.
 Young, Herbert S., Washington, D. C.
 Zeller, C. Doris, Baltimore
 Zurhorst, Mary O., Washington, D. C.

FRESHMAN CLASS

Abell, Joseph D., Leonardtown
 Abelman, Rita, Atlanta, Ga.
 Abrams, Amanda A., Hyattsville
 Abramson, Nathan, Flushing, N. Y.
 Aburn, Herbert O., Baltimore
 Adams, Donald L., Mt. Rainier
 Aiken, Bernard S., Cockeysville
 Albright, Erving E., Coxsackie, N. Y.
 Albright, Frank H., Coxsackie, N. Y.
 Allen, Charles B., Towson
 Altman, Andrew T., Washington, D. C.
 Altschuler, Leon, Washington, D. C.
 Amsterdam, Ben, Newark, N. J.
 Anchell, Melvin, Baltimore
 Angleberger, Grace E., Frederick
 Anspson, Bert W., Washington, D. C.
 Appelbaum, Bernard, Washington, D. C.
 Arnold, Bessie L., Takoma Park
 Ashman, Robert E., Baltimore
 Atwood, Robert M., Washington, D. C.
 Augustine, Frances M., Seat Pleasant
 Aymold, Bernard L., Baltimore
 Back, Dolores M., Baltimore
 Bageant, Audry G., Washington, D. C.
 Baker, Jane C., Chester, N. S., Canada
 Baldwin, Janet K., Berwyn
 Barnes, Wilbur J., Takoma Park
 Ball, William M., Berwyn
 Barr, Charles M., Easton
 Barthel, Carl C., Catonsville
 Beach, Dorothy M., Washington, D. C.
 Bedell, Helen I., Washington, D. C.
 Benton, Thomas R., Ammendale
 Berkowich, Betty B., Thurmont
 Berlin, Walter I., Baltimore
 Bierly, Jack S., Sabillasville
 Bindes, Louis L., Washington, D. C.
 Bjorge, Margaret, New London, Conn.
 Blake, Frank E., Washington, D. C.
 Blum, N. Frances, York, Pa.
 BonDurant, Edgar H., Mt. Rainier
 Borenstein, Frank C., Baltimore
 Bosley, Dorothy A., Baltimore

Bowers, Cecil D., Baltimore
 Bowling, James E., Newport
 Bradley, Eleanor J., Chevy Chase
 Brandes, Herbert G., Washington, D. C.
 Brandt, Frederick B., Washington, D. C.
 Brandt, John M., Jr., Baltimore
 Breitschwerdt, Lloyd C., Baltimore
 Brendle, William K., Baltimore
 Brice, Mary E. Millburn, N. J.
 Briggs, Gilbert P., Washington, D. C.
 Brill, Warren D., North Beach
 Brinckerhoff, John G., Lansdowne, Pa.
 Brooks, Eva B., Baltimore
 Brown, Kimbrough S., Washington, D. C.
 Buch, Eloise A. A., Baltimore
 Bugos, Paul E., Riverdale
 Bunevich, Milton, Washington, D. C.
 Burges, Sam H., Takoma Park
 Burgess, Betty R., Hyattsville
 Burke, Francis V., Silver Spring
 Burke, Robert, Hyattsville
 Burnside, James B., Washington, D. C.
 Burton, Jean E., Cheverly
 Butler, Harry F., Cumberland
 Byers, Shirley, Baltimore
 Cahn, Shirelyn, Upper Marlboro
 Campbell, Dorothy M., Riverdale
 Cann, Alice V., Baltimore
 Caplan, Jerome E., Baltimore
 Carey, Frank W., Jr., Dundalk
 Carlton, Jean F., Fair Haven
 Carson, Betsy J., Chevy Chase
 Cartee, Robert S., Hagerstown
 Cassel, Douglass W., Baltimore
 Chandler, Edmond T., Takoma Park
 Chapline, George M., Frederick
 Cherry, Jack F., Washington, D. C.
 Chertkof, Helen R., Baltimore
 Childress, Miriam R., Washington, D. C.
 Cissel, Elizabeth M., Washington, D. C.
 Clark, Charles H., Washington, D. C.
 Clark, Clara M., Takoma Park
 Clark, Kenneth J., Baltimore

Clark, Richard A., Fort Belvoir, Va.
 Clarke, Daniel E., Washington, D. C.
 Cohen, Helyn E., Elizabeth, N. J.
 Cohen, Morton G., Baltimore
 Cole, Milton S., Laurel
 Collins, Lyman I., Linthicum Heights
 Conway, Earl V., Oxon Hill
 Cook, Elmer E., Jr., Brooklyn
 Corridon, Donald C., Washington, D. C.
 Covey, Carlton, Easton
 Criner, Ploomie E., Washington, D. C.
 Crone, John L., Mt. Rainier
 Curtis, Elizabeth J., Ellicott City
 Custer, John D., Washington, D. C.
 Daiker, John A., Washington, D. C.
 Dammeyer, Robert E., Annapolis
 Daniels, Edward L., Baltimore
 Danilson, Harry T., Chevy Chase
 Dann, Clayton S., Chevy Chase
 Davies, Thomas A., Jr., Baltimore
 Davis, Frank I., Jr., Poolesville
 Davis, Joseph G., Pittsville
 Davis, Ralph F., Baltimore
 Day, Margaret W., Chevy Chase
 Day, Richard S., Baltimore
 DeCherniss, Billy P., Washington, D. C.
 Delaney, Atlee M., Charleston, W. Va.
 Dempsey, Harry J., Hyattsville
 Derrick, Daniel M., Washington, D. C.
 DeWitt, George A., Jr., Bethesda
 DeYoung, Joseph, Jr., Washington, D. C.
 Diggs, William B., Jr., Baltimore
 Dinowitz, Wilma, Washington, D. C.
 Dix, Gloria R., New York, N. Y.
 Dodson, Charles M., Mount Airy
 Dorr, Charles R., Washington, D. C.
 Dowd, James F., Baltimore
 Downey, Hugh P., Washington, D. C.
 Drawbaugh, David G., Hagerstown
 Dunkle, H. Bothwell, Maddox
 Durm, William B., Baltimore
 Dwyer, Frank A., Baltimore
 Ehudin, Herman, Baltimore
 Elder, Jack T., Riva
 Elliott, Frances A., Washington, D. C.
 England, William H., Jr., Washington, D. C.
 Epstein, Bernard, Baltimore
 Eschner, Paul F., Jr., Billingsley
 Esterson, Milton M., Baltimore
 Etzler, Doris M., Frederick
 Evans, Richard M., Washington, D. C.
 Evans, Ruth E., Baltimore
 Evering, George C., Baltimore
 Ewing, Lydia F., Takoma Park
 Farina, Yolanda L., Hyattsville
 Faris, James B., Washington, D. C.
 Feldman, Milton J., South Fallsburg, N. Y.

Fink, Morie, Beckley, W. Va.
 Fisch, Leahadele, South Orange, N. J.
 Fisher, Allan C., Cumberland
 Flanagan, Elizabeth L., Fort Meade
 Flippin, Ruth L., Baltimore
 Foote, Ellen C., Chevy Chase
 Forsberg, Robert A., Rockville
 Fox, Harvey E., Seat Pleasant
 Frenkil, Bernard L., Baltimore
 Frey, Ralph W., Jr., Mt. Rainier
 Frothingham, James R., Jr., Hyattsville
 Frye, Donald H., Laurel
 Fugitt, Howard D., Seat Pleasant
 Fuhrman, Marion J., Philadelphia, Pa.
 Furbershaw, Olga S., Washington, D. C.
 Gantz, Guy G., Jr., Hagerstown
 Garrett, Esther B., Annapolis
 Garrett, Marshall J., Washington, D. C.
 Gehman, Jonathan F., Brentwood
 Gillett, Donald M., Washington, D. C.
 Gilley, Virginia R., Washington, D. C.
 Glaze, Francis W., Jr., Hyattsville
 Goldbeck, Clara G., Chevy Chase
 Goldblatt, Hyman, Washington, D. C.
 Graves, Glen W., Baltimore
 Greenip, John F., Washington, D. C.
 Grier, Jack G., Towson
 Grover, Oscar D., Washington, D. C.
 Gude, Adolph E., Jr., Rockville
 Guerrant, William S., Jr., Washington, D. C.
 Gurkin, Mildred I., Newark, N. J.
 Guyther, Joseph R., Mechanicsville
 Haase, Thomas N., Baltimore
 Haines, William S., Westfield, N. J.
 Hamill, James E., Bethesda
 Handler, Chester J., Washington, D. C.
 Harbig, James T., New Holland, Ga.
 Hardy, James W., Washington, D. C.
 Harn, John N., Baltimore
 Harner, Charles R., Emmitsburg
 Harris, Herbert R., Washington, D. C.
 Hartman, James H., Jacksonville, Fla.
 Hasley, John R., Washington, D. C.
 Hayes, Edson A., Washington, D. C.
 Hazard, Alfred S., Takoma Park
 Hazatsky, Martin, Asbury Park, N. J.
 Heaster, Joy L., Salisbury
 Hebgen, Mildred A., Washington, D. C.
 Heider, Edward M., Washington, D. C.
 Henderson, Frances W., Washington, D. C.
 Henderson, Hugh M., Baltimore
 Henderson, Mary D., Rockville
 Herman, Robert, Baltimore
 Heyer, Anna K., Baltimore
 Heyer, Frank N., Baltimore
 Heygster, William H., Washington, D. C.
 Hicks, Clarence M., Washington, D. C.

Higbee, Lester W., Pleasantville, N. J.
Hitch, Robert N., Queenstown
Hodges, Julia L., Catonsville
Hodson, Annesley E., III, Baltimore
Hogan, James E., Baltimore
Hohouser, Henry S., Washington, D. C.
Hollander, Leah J., Baltimore
Hollingsworth, Treva F., Washington, D. C.
Horn, Arthur W. M., Hyattsville
Horowitz, Daniel J., Brooklyn, N. Y.
Howard, Eugene, Baltimore
Hudson, Marion C., Delmar, Del.
Hudson, Vann D., Baltimore
Hughes, Thomas D., Washington, D. C.
Hurwitz, Hyman, Annapolis
Hutchinson, Richard F., Chevy Chase
Hutson, Harry M., Cumberland
Ingraham, Wilson G., Washington, D. C.
Irvin, Mary E., Baltimore
Jachowski, Leo A., Jr., Washington, D. C.
Jansson, George A. W., Baltimore
Jarboe, Paul E., Mechanicsville
Jefferys, Wilbur T., Washington, D. C.
Johnson, Robert W., Jr., Baltimore
Johnson, Thomas L., Washington, D. C.
Johnson, William P., Glen Burnie
Jones, Bobby L., Relay
Joy, Bernard F., Washington, D. C.
Joyce, Charles V., Hyattsville
Judd, Mary D., Takoma Park
Kane, James L., Hyattsville
Kane, Mary E., Silver Spring
Kaplan, Harry E., Washington, D. C.
Kassan, Robert S., Baltimore
Kassel, Victor, Brooklyn, N. Y.
Keeney, Dan F., Walkersville
Kemp, Lois V., Baltimore
Kempton, Hildreth, Lanham
Kendall, Charles W., Dundalk
Kercher, Frances L., Paoli, Pa.
Kidd, Franklin F., Washington, D. C.
Kiernan, Harry D., New Haven, Conn.
King, Laura F., Savage
Kirkman, Harriet V., Catonsville
Kitchin, William M., Washington, D. C.
Kittel, Patricia I., Chevy Chase
Klawans, Bernard B., Annapolis
Kleiman, Albert, Baltimore
Klein, Charles F., Baltimore
Kneessi, Robert W., Riverdale
Kress, Bernice E., Baltimore
Kritzer, Katryna L., Hagerstown
Krogmann, Carl F., Washington, D. C.
Krouse, William E., Bethesda
Krugman, Leonard, Newark, N. J.
Ksanda, Charles F., Washington, D. C.
Kuhn, Helene L., Baltimore
Kytte, Stuart F., Washington, D. C.

Labovitz, Henry P., Baltimore
Landy, William C., Clifton, N. J.
Lank, Murrell C., Washington, D. C.
Lansdale, Miriam E., Washington, D. C.
Lansdale, Richard H., Jr., Sandy Spring
Larduskey, James L., Jr., Baltimore
Larson, John D., Jr., Bowie
Leatherman, Robert B., Hyattsville
Lee, Mary M., Bethesda
Lee, Mildred V., Baltimore
Lempke, Charles T., Washington, D. C.
Levin, Allan F., Akron, Ohio
Levine, Lawrence B., South Fallsburg,
N. Y.
Levine, Stuart C., Baltimore
Levy, Bernice F., Washington, D. C.
Lewis, Addison L., Havre de Grace
Lewis, Eula G., Washington, D. C.
Lewis, George W., Chevy Chase
Lewis, Howard I., Washington, D. C.
Lewis, John E., Silver Spring
Lewis, Thomas H., Bethesda
Lipsky, Irving R., Washington, D. C.
Longfield, Aaron N., Lampasas, Texas
Lowenthal, Jean E., New York, N. Y.
Luber, Laura E., Washington, D. C.
Lucas, Frances N., Berwyn
Luntz, John G., Govans
Madorsky, Irving, Washington, D. C.
Mahrer, Mary E., Wilmington, Del.
Makover, Jeanne A., Baltimore
Mandell, Marvin, Baltimore
Mangum, Lola M., Silver Spring
Marlow, Alice M., Bethesda
Martin, James A., Emmitsburg
Matheke, Joan B., Newark, N. J.
Mazur, Alexander, Shelton, Conn.
McCardell, Ethel C., Hagerstown
McCoy, Horace L., Jr., Chevy Chase
McDevitt, Richard C., Baltimore
McDonald, Francis J., Washington, D. C.
McGill, Caroline F., Thurmont
McInturff, George F., Washington, D. C.
McLaughlin, Lillian P., Baltimore
McMahon, William E., II, Washington,
D. C.
McNiel, John R., Washington, D. C.
Mead, James M., Washington, D. C.
Meanley, Brooke, Jr., Baltimore
Mehl, Charlson I., Washington, D. C.
Mendelson, Robert, Baltimore
Meriam, Martha P., Kensington
Meyerson, Norman, Brooklyn, N. Y.
Michaelson, Helen G., Mt. Vernon, N. Y.
Middleton, Frederic E., Jr., Bethesda
Miller, Ervin, Baltimore
Miller, Joshua I., Berwyn
Miller, King B., Jr., Princess Anne

Miller, Robert A., Branchville
Miller, Sonia V., Annapolis
Milloff, Bernard, Silver Spring
Minion, Allen V., Newark, N. J.
Mintzer, Jack M., Ocean City, N. J.
Mintzer, Lynwood F., Ocean City, N. J.
Mohle, Robert L., Berwyn
Moon, Arthur P., Takoma Park
Moore, George C., Jr., Queen Anne
Moore, Henry W., Washington, D. C.
Morris, Charles B., Delmar
Morris, Daniel L., Washington, D. C.
Morton, John, II, Mt. Airy
Mudd, Patrick C., Bryantown
Mueller, John L., Baltimore
Muniz, Jose A., Ponce, P. R.
Murphy, Julian G., Silver Spring
Neale, Robert R., Baltimore
Nichols, Irene, Washington, D. C.
Nichter, Harry R., Takoma Park
Nimetz, David, Washington, D. C.
Norcross, Theodore W., Jr., Chevy Chase
Nowell, Ellsworth B., Linthicum Heights
Ochsenreiter, Eugene C., Jr., Asheville,
N. C.
O'Donnell, John C., Oakland
Offutt, Harry D., Edgewood Arsenal
Osso, Philomena, Annapolis
Page, Thad S., Washington, D. C.
Palese, John M., Baltimore
Panitz, Leon J., Baltimore
Pappas, George H., Baltimore
Parker, Frances J., Catonsville
Peacock, Franklin K., Takoma Park
Pennella, Michael, Washington, D. C.
Peters, Emily R., Beltsville
Pfeil, Edgar T., Baltimore
Pierpont, William M., Baltimore
Pitcher, David L., Washington, D. C.
Pohlman, Thelma V., Landover
Pope, Joseph A., Washington, D. C.
Popham, William F., Edgewater
Powers, Lillian, Jersey City, N. J.
Preble, Merle R., College Park
Prinz, John W., Jr., Baltimore
Prostic, Abraham, Baltimore
Pulliam, James W., Washington, D. C.
Rawlings, David E., Kensington
Rawls, Estelle H., Kensington
Raymond, Betty T., Washington, D. C.
Reese, Elizabeth J., Washington, D. C.
Reynolds, Hope, Rising Sun
Rice, Alvin B., Greenwich, Conn.
Rice, Edward J., Brentwood
Rice, George W., Jr., Catonsville
Rice, Robert C., Jefferson
Richardson, Robert R., Washington, D. C.
Richmond, Naomi M., Cottage City

Riedel, Kathryn E., Hyattsville
Ritter, Ira M., Hagerstown
Ritter, Marshall H., Takoma Park
Ritter, Rhea M., Baltimore
Robertson, Alice C., Washington, D. C.
Robertson, Sherrard A., Washington, D. C.
Robinson, Geneva M., Bennings, D. C.
Rogers, John D., Richmond, Va.
Rolfes, Harry F., Brentwood
Roop, Dorothy M., Baltimore
Root, Elizabeth A., Ben Avon Heights, Pa.
Roper, Catherine B., Washington, D. C.
Rosenberg, Gus B., Baltimore
Rosenberg, Robert, Baltimore
Rosenfield, Ethel M., Baltimore
Rosenstock, LeRoy G., Westminster
Ross, Elizabeth, Washington, D. C.
Rowe, Dora M., Brentwood
Royster, Patsy A., Bethesda
Rozelle, Albert L., Washington, D. C.
Rubin, Ruth, Washington, D. C.
Rundell, Barbara J., Baltimore
Ruppersberger, Marjorie E., Baltimore
Sachs, Moses B., Baltimore
Sack, Margaret E., Baltimore
Salganik, Alvin C., Baltimore
Sämmler, Emily, Baltimore
Sanchiz, Jose C., Panama City, Panama
Sasser, William G., Takoma Park
Saum, Robert W., Lanham
Sawyer, Arthur W., Baltimore
Scarborough, Rowan L., Jr., Silver Spring
Schindel, Katherine, Catonsville
Schlesinger, Arthur, Washington, D. C.
Schmidt, June C., Randallstown
Schmitt, Edwin M., Chevy Chase
Schuler, Walter H., Washington, D. C.
Schultz, Selma, Lynbrook, N. Y.
Scopi, John D., Jr., Washington, D. C.
Scott, Donald C., Washington, D. C.
Seal, William A., Jr., Baltimore
Sedlak, Emery P., Riverdale
Seeger, William H., Jr., Silver Spring
Seitz, William N., Washington, D. C.
Senge, George W., Jr., Washington, D. C.
Senseman, Rodney L., Silver Spring
Seymore, George, Washington, D. C.
Sherline, David M., Garrett Park
Sherman, Andrew N., Baltimore
Shields, Leonard J., Atlantic City, N. J.
Shorb, Alfred F., Silver Spring
Silver, Betty J., Washington, D. C.
Silverman, Norman H., Washington, D. C.
Silverman, William J., Baltimore
Simpson, Doris V., Hagerstown
Simpson, Frances, Washington, D. C.
Skeen, Richard T., Baltimore
Skill, Elizabeth P., Homestead, Fla.

Skipton, Roy K., Mt. Rainier
 Slattery, Richard G., Washington, D. C.
 Sleight, Mildred A., Glen Burnie
 Smith, Francis A., North East
 Smith, Gregg C., Bethesda
 Smith, Kenneth A., Cumberland
 Smith, Warrington G., Phoenix
 Snyder, Peter F., Jr., Washington, D. C.
 Spelsberg, Walter K., Clarksburg, W. Va.
 Stapf, Shirley A., Baltimore
 Sterling, James T., Washington, D. C.
 Sterling, Raymond A., Washington, D. C.
 Stetson, Frank, Jr., Chevy Chase
 Stotler, Frances I., Baltimore
 Strachan, Lincoln S., Kitzmiller
 Stuart, LaRhett L., Washington, D. C.
 Stuver, Richard L., Washington, D. C.
 Swank, Lawrence E., Washington, D. C.
 Taliaferro, Thomas B., Heathsville, Va.
 Talmadge, Richard H., Nutley, N. J.
 Teubner, Raymond C., Ellicott City
 Thompson, Talmadge S., Silver Spring
 Thurston, Margaret J., Riverdale
 Thurston, William B., Relay
 Tilles, Norman D., Baltimore
 Todd, Gary T., Baltimore
 Tooma, Frederick A., Baltimore
 Tregellis, John S., Baltimore
 Trimble, Ernest C., Mt. Savage
 Truman, Zelma M., College Park
 Tucker, Rebecca A., Forest Hill
 Tulin, Molly B., Hartford, Conn.
 Turner, Alan C., Jr., Lusby
 Turner, Roy B., Jr., Washington, D. C.
 Turner, William F., Washington, D. C.
 Tuttle, Samuel D., Baltimore
 Ubides, Pedro F., Ponce, P. R.
 Valenti, Gino, Washington, D. C.
 Vance, Edwin S., Jr., Baltimore
 Voris, Anna M., Laurel
 Waesche, Harry L., Chevy Chase
 Wagner, Ernest G., Hyattsville
 Wallace, James C., Washington, D. C.

Wallace, Mary C., Barclay
 Wallenstein, Walter A., Washington, D. C.
 Walmsley, John S., Baltimore
 Warthen, Gerald B., Kensington
 Waters, Mary E., Laurel
 Waters, William R., Lanham
 Watson, Betty J., Forest Glen
 Watson, Mary E., Bradbury Park
 Weathersbee, David R., Washington, D. C.
 Webb, Mary J., Federalsburg
 Wehmhoff, Bruce M., Chevy Chase
 Wehr, Everett T., Malverne, N. Y.
 Weinberg, Harold H., Baltimore
 Weinman, Melvin, Baltimore
 Wellslager, John A., Baltimore
 Wessberg, Olof H., Colmar Manor
 Wette, Mary Anne M., Baltimore
 White, Rollie H., Washington, D. C.
 Whitten, John M., Annapolis
 Wiessner, Gilbert W., Baltimore
 Wightman, Joseph W., Jr., Mt. Rainier
 Wilcox, Stanley, Rockville
 Wiley, William W., Jr., Washington, D. C.
 Williams, Owen W., Granite
 Willis, Daniel P., Jr., Washington, D. C.
 Wilson, Howard D., College Heights
 Wilson, Irene L., Mt. Rainier
 Wilson, Stansbury M., Baltimore
 Wiseman, Leon R., Washington, D. C.
 Witlin, Louise F., Philadelphia, Pa.
 Witsell, Edward F., Washington, D. C.
 Woodring, Judy W., Chevy Chase
 Woodward, Charles W., Jr., Rockville
 Worthington, Leland G., Jr., Berwyn
 Worthington, Raymond L., New Milford, Conn.
 Yaffe, Stanley N., Baltimore
 Yagendorf, June L., Elizabeth, N. J.
 Young, Elton F., Washington, D. C.
 Zaino, Rocco M., Westbury, N. Y.
 Zedd, Ruth A., Norfolk, Va.
 Ziegler, Paul R., Baltimore
 Zilber, Morris L., Baltimore

PART TIME

Adams, Robert W., Washington, D. C.
 Blackman, Maulsby N., Woodside Park
 Bowmar, Hartley, Baltimore
 Donovan, Mary M., Washington, D. C.
 French, Samuel L., Rumbley
 Hanson, William C., Jr., Washington, D. C.
 Harris, Jean W., College Park
 Kiernan, Paul C., Washington, D. C.
 Lemmermann, Henry J., College Park
 Maris, Helen B., Riverdale
 McClay, Harriette N., Hyattsville
 Motyka, Agnes L., Washington, D. C.

Oxley, John E., Washington, D. C.
 Ready, Frank T., Landover
 Riddell, Jean M., Washington, D. C.
 Ross, Barbara G., Riverdale
 Saylor, Zella P., Hyattsville
 Seligson, David, Washington, D. C.
 Shulman, Samuel, Washington, D. C.
 Smith, Charles E., Washington, D. C.
 Stelzer, Frederick C., Jr., Derwood
 Walker, Ernest C., Takoma Park
 White, Kenneth S., College Park
 Willey, Edward J., Washington, D. C.

UNCLASSIFIED

Andrews, C. A., Jr., Tampa, Fla.
 Arnold, Ann G., Mt. Washington
 Ehrlich, Raphael H., Washington, D. C.
 Hammer, Ralph C., Cumberland
 Hornstein, Audrey A., Baltimore
 Hunt, Robert M., Washington, D. C.

Hyman, Harold, Meriden, Conn.
 Kellough, Elmer R., Jr., Cumberland
 Land, Robert H., Baltimore
 Plumer, Gertrude E., Huntingtown
 Race, Thornton C., Hagerstown
 Walten, Max, Washington, D. C.

SCHOOL OF DENTISTRY

SENIOR CLASS

Aaron, Alvin, Biddeford, Maine
 Asbell, Milton B., Camden, N. J.
 Bailey, Carl E., Baltimore
 Baker, Edward K., Jr., Pikesville
 Barker, John P., Laurel
 Barnes, Bradley B., Maplewood, N. J.
 Boro, Alex L., Severna Park
 Cabler, James T., Baltimore
 Cammarano, Frank P., New Haven, Conn.
 Carrigan, Harold J., Jersey City, N. J.
 Cohen, Sigmund, Baltimore
 Cooper, David, Atlantic City, N. J.
 Cramer, Paul E., Monessen, Penna.
 Cruik, Edwin D., Poolesville
 Donofrio, Richard S., Danbury, Conn.
 DuBoff, Leonard, West Hartford, Conn.
 Erlich, William, Baltimore
 Eskow, Alexander B., Perth Amboy, N. J.
 Falk, Wilbur N., Branford, Conn.
 Farrington, Charles C., Chelmsford, Mass.
 Finegold, Raymond, Belmar, N. J.
 Gemski, Henry J., New Haven, Conn.
 Giuditta, Nicholas A., Westfield, N. J.
 Goe, Reed T., Weston, W. Va.
 Habercam, Julian W., Baltimore
 Haggerty, Jack S., Sussex, N. J.
 Hartwell, Perley B., St. Johnsbury, Vt.
 Heil, Roland W., Baltimore
 Johnson, William B., Jr., Annapolis
 Johnston, Arthur J., Providence, R. I.
 Jonas, Charles S., Atlantic City, N. J.
 Kern, Louis D., Baltimore
 Kraus, George C., Baltimore

Lasley, Frank A., Jr., Staunton, Va.
 Lau, Irvin M., Jr., York, Penna.
 Levin, Leonard L., Norfolk, Va.
 Liberman, Sidney E., Baltimore
 Lyon, Eugene D., Baltimore
 Margulies, David B., Linden, N. J.
 Marsh, Edmond F., North Adams, Mass.
 Massucco, Lawrence P., Bellows Falls, Vt.
 Mathias, Craig P., Waynesboro, Pa.
 McCausland, Charles P., Baltimore
 McMillin, Clarence V., Landrum, S. C.
 Meadows, Stanley J., Brunswick
 Mendelsohn, Harry B., Norfolk, Va.
 Messner, Jack M., Washington, D. C.
 Morris, Hugh B., Baltimore
 Muller, Edward J., Jersey City, N. J.
 Myer, Edward H., Jr., Mahwah, N. J.
 Neal, Floyd W., Southington, Conn.
 Rich, Otto M., New Brunswick, N. J.
 Roitman, Irvin, Trenton, N. J.
 Ryan, William H., Frostburg
 Saltman, David, Holyoke, Mass.
 Silverman, Stanley G., Portsmouth, Va.
 Slavinsky, Edwin A., Baltimore
 Smyth, Lawrence C., Quincy, Mass.
 Stepan, Jerry J., Baltimore
 Stewart, Ford A., Baltimore
 Theodore, Raymond M., Baltimore
 Turok, Seymour, North Bergen, N. J.
 Weigel, Sterling J., York, Pa.
 Westerberg, Carl V., Simsbury, Conn.
 Wheeler, Elias O., Lynchburg, Va.
 Williams, Ernest V., Chevy Chase, D. C.

JUNIOR CLASS

Aaronson, Fabius F., Washington, D. C.
 Allen, Joseph P., New Martinsville,
 W. Va.
 Auerbach, Bernard B., Baltimore
 Barsamian, Samuel, Providence, R. I.
 Blais, Raymond, Holyoke, Mass.
 Blevins, George C., Centerville
 Bozzuto, John M., Jr., Waterbury, Conn.
 Brown, Frank A., Lansdowne
 Cannaday, Henry L., Roanoke, Va.

Carvalho, Antone R., New Bedford, Mass.
 Cavallaro, Ralph C., Branford, Conn.
 Chan-Pong, Bertrand O., Port-of-Spain,
 B. W. I.
 Davis, James C., Silver Spring
 Dunn, Naomi A., New Britain, Conn.
 Edgar, Benjamin D., Viola, Ill.
 Eichenbaum, Irving W., New Haven,
 Conn.
 Fallon, Charles H., Trenton, N. J.

Feindt, William B., Baltimore
 Francis, Garnet P., Jr., Alexandria, Va.
 Gane, Eugene M., Hartford, Conn.
 Gilden, Paul, Baltimore
 Goldstein, Leonard N., Hartford, Conn.
 Gorsuch, Gilbert F., Dundalk
 Griesbach, Hans H., Naugatuck, Conn.
 Grove, Harry C., Jr., Fairplay
 Hirschman, Leonard M., Baltimore
 Hoffacker, Henry J., Hanover, Pa.
 Jacoby, Robert E., Halethorpe.
 Jakob, Robert, Norwalk, Conn.
 James, Verda E., Milford, Del.
 Johnson, Walter E., Berlin, N. H.
 Joyce, Osler C., Arnold
 Kader, Marshall I., Baltimore
 Krug, Frederick R., Baltimore
 Labasauckas, Charles F., Watertown, Conn.
 Legum, Isidore, Baltimore
 Maislen, Irving L., Hartford, Conn.
 McConnell, William L., West Union,
 W. Va.
 McCracken, Jules, Cameron, W. Va.
 Meinster, Leon H., Baltimore
 Melson, William F., Wilmington, Del.
 Miller, Max, Baltimore

SOPHOMORE CLASS

Belinkoff, Sidney A., Weehawken, N. J.
 Bonham, John T., Charleston, W. Va.
 Bookstaver, Julian B., Teaneck, N. J.
 Dabrowski, Benjamin A., Baltimore
 Diamond, Ben, Roanoke, Va.
 Goldhaber, Samuel, Flushing, N. Y.
 Kasawich, Julius I., Whitestone, N. Y.

Morris, Albert W., Salisbury
 Myers, Melvin, Washington, D. C.
 Noon, William J., Jr., Providence, R. I.
 Plaster, Harold E., Winston-Salem, N. C.
 Rabinowitz, Seymour A., New Britain,
 Conn.
 Randolph, Kenneth V., Lost Creek,
 W. Va.
 Reed, Paul, Port Henry, N. Y.
 Robinovitz, Irving K., Fall River, Mass.
 Rogers, Everett T., Waterbury, Conn.
 Rosen, Joseph G., New York, N. Y.
 Schoepke, Oscar J., Oakfield, Wis.
 Schriver, Alfred B., Bangor, Me.
 Shaudis, Leo J., Silver Creek, Penna.
 Shea, Erwin E., Hartford, Conn.
 Sidoti, Vincent F., Winsted, Conn.
 Stinebert, Edward R., Baltimore
 Tinsley, William C., Lynchburg, Va.
 Tipton, Dorsey R., Baltimore
 Varipatis, Michael S., Baltimore
 Waldman, Bernard, New Haven, Conn
 Weiner, Irving S., Hartford, Conn.
 Wooden, John H., Jr., Baltimore
 Wright, Dan, Greenville, N. C.

Litchman, Burton, Cranston, R. I.
 Lowander, George A., Queens Village, N. Y.
 Pessagno, Eugene L., Jr., Baltimore
 Piccolo, James A., New Haven, Conn.
 Randman, Bernard, Whitestone, N. Y.
 Westcott, Horace L., Branford, Conn.
 Yablonski, Anthony P., New Britain, Conn.

FRESHMAN CLASS

Aurbach, Frederick, Idabel, Okla.
 Baevsky, William D., Penns Grove, N. J.
 Baker, Robert N., Kings Mountain, N. C.
 Beaven, Sterrett P., Baltimore
 Berman, Daniel E., Baltimore
 Betts, Robert L., Morris Plains, N. J.
 Birshtein, Benjamin, Atlantic City, N. J.
 Bohne, Edmund L., Bergenfield, N. J.
 Bressman, Edward, Newark, N. J.
 Briskin, Melvin R., Springfield, Mass.
 Brotman, Alfred, Baltimore
 Burch, Joseph P., Clifton, N. J.
 Caldwell, Gilbert L., Baltimore
 Callaway, John S., Beckley, W. Va.
 Capone, Nicholas J., Baltimore
 Castelle, Paul B., Baltimore
 Chernow, Abraham, Brooklyn, N. Y.
 Chmar, Phillip L., Rockville
 Cohen, Jerome S., Baltimore
 Collins, William M., Bellows Falls, Vt.

Corbitt, Don C., Waverly, W. Va.
 DePasquale, Frank L., East Northport,
 N. Y.
 DeScherer, Morton, Englewood, N. J.
 Dubansky, Paul S., Baltimore
 Easton, James F., Romney, W. Va.
 Farrell, Daniel L., Norwich, Conn.
 Frey, Donald T., Catonsville
 Friedmann, Michael, Whitestone, N. Y.
 Golden, Maxwell S., South River, N. J.
 Gudwin, Abraham, New York, N. Y.
 Haggerty, Warren D., Jr., Hackensack,
 N. J.
 Hawkins, Virgil R., Union, S. C.
 Heller, Stanley, New York, N. Y.
 Hewitt, Earl C., Baltimore
 Hoffman, Barnet, Newark, N. J.
 Hyman, Harold, New York, N. Y.
 Hymanson, Nathan W., Somerville, N. J.
 Kapiloff, Bernard, New York, N. Y.

Kapiloff, Leonard, New York, N. Y.
 Karow, Seymour M., Ellenville, N. Y.
 Kellar, Sidney, Ellenville, N. Y.
 Klingelhofer, Herbert E., Baltimore
 Koenig, Leonard, Brooklyn, N. Y.
 Kornreich, Kenneth D., Waterbury, Conn.
 Lauro, Mario A., Waterbury, Conn.
 Lawrence, Ronald, Elk Mills
 Levine, Louis, Brooklyn, N. Y.
 Levy, Benjamin, Brooklyn, N. Y.
 Marano, Frank A., Newark, N. J.
 McClees, Joseph G., Baltimore
 McDaniel, Edward P., Jarrettsville
 Mishkin, Edward A., New York, N. Y.
 Ollman, Abraham, New York, N. Y.
 Parker, Malcolm M., Freehold, N. J.
 Policow, Myron A., Metuchen, N. J.
 Reposo Ruiz, Mario L., Havana, Cuba
 Reusch, George, Cranford, N. J.
 Rosenberg, Edward G., Jamaica, N. Y.

Rudo, Frederick B., Raspeburg
 Santeramo, John R., Brooklyn, N. Y.
 Schiller, LeRoy E., Newark, N. J.
 Schultheis, Carl H., Baltimore
 Singer, Max, Bridgeport, Conn.
 Sloan, Harry, Brooklyn, N. Y.
 Smith, Bernard, Hagerstown
 Smith, Joseph H., Hancock
 Spina, Russell, Jamaica, N. Y.
 Storch, Murray, Passaic, N. J.
 Taub, Charles, Newark, N. J.
 Toffic, John W., Bergenfield, N. J.
 Tolley, Leonard J., Brooklyn Park
 Upham, Louis J., Baltimore
 Vitolo, Erminio, Brooklyn, N. Y.
 Weinger, Irving, Brooklyn, N. Y.
 Wohl, Milton, Baltimore
 Zeger, Jack I., Port Jervis, N. Y.
 Zuskin, Raynard F., Baltimore

SECOND YEAR PREDENTAL CLASS

Aldridge, William A., Baltimore
 Chicqués, Elsa L., Caguas, Puerto Rico
 Cohen, Sylvan P., Baltimore
 Coroso, Joseph T., Hartford, Conn.
 Gasteazoro, Mariano, Panama City,
 Panama
 Harber, Joseph M., Asbury Park, N. J.
 Kahl, Gordon K., Baltimore
 Kennedy, Walter E., Jr., Baltimore
 Kolman, Irvin O., Trenton, N. J.
 Lasch, Henry R., New Britain, Conn.

Lazauskas, Algert P., Baltimore
 Martinelli, Ricardo, Panama City, Panama
 Munoz, Jorge E., Salinas, Puerto Rico
 Ouellette, Raymond T., Lawrence, Mass.
 Ramirez, Mario F., San Germán, Puerto
 Rico
 Tighe, Joseph M., Raspeburg
 Toomey, Lewis C., Elkridge
 Wieland, John T., Baltimore
 Williamson, Riley S., Baltimore
 Yeager, John W., Baltimore

FIRST YEAR PREDENTAL CLASS

Beaulieu, Jerome E., Gonic, N. H.
 Carrasquillo, Ralph J., New York, N. Y.
 Cierler, Irving J., Baltimore
 Cooper, Bertram, Baltimore
 DiPaula, Vincent J., Elkton
 Ditrollo, James V., Kearny, N. J.
 Edwards, John J., Dundalk
 Greene, Willard T., Baltimore
 Jacobs, Robert I., Baltimore
 Kramer, Mervin, Baltimore
 Krieger, Leon, Baltimore
 Lancaster, DeWitt B., Jr., Baltimore
 Landes, Isaac J., Baltimore
 Leatherbury, George P., Towson
 Leiphart, Mahlon P., York, Pa.
 Levin, Naomi H., Baltimore
 Levy, Herbert S., Baltimore
 Libauer, Robert S., Baltimore
 Liloia, Michael P., Nutley, N. J.
 Moffett, Virginia M., Catonsville

Montesinos, Miguel J., Governors Island,
 N. Y.
 O'Meara, John O., Torrington, Conn.
 Reilly, James T., Central Aguirre,
 Puerto Rico
 Rising, Richard B., Catonsville
 Rothenberg, Joffre M., Baltimore
 Sauerman, Edward E. K., Jr., Linthicum
 Heights
 Schmidt, John H., Baltimore
 Schmidt, Robert F., Baltimore
 Shochet, Melvin W., Baltimore
 Stern, Martin, Passaic, N. J.
 Sucoll, Sidney, Hartford, Conn.
 Tongue, Raymond K., Baltimore
 Wilds, Howard F., Jr., Baltimore
 Wilkinson, Milton S., North Arlington,
 N. J.
 Yalovitz, Marvin S., Anniston, Ala.
 Zimmerman, John B., Schaefferstown, Pa.

SPECIAL STUDENTS

Erana, Nieva B., Pasay, Philippine Islands

Proutt, Leah M., Hagerstown

COLLEGE OF EDUCATION

SENIOR CLASS

Bailey, Douglas A., Takoma Park
 Beal, Anne A., Washington, D. C.
 Birkland, John V., Washington, D. C.
 Brode, Carl K., Frostburg
 Burton, Beulah M., Berwyn
 Clopper, Richard R., Clear Spring
 Conway, Mary V., Washington, D. C.
 Danforth, Shirley F., Riverdale
 Enderle, Ethel E., Glen Burnie
 Esch, Marion E., Chevy Chase
 Glime, Gilbert, Frostburg
 Goldsmith, Cecelia E., Faulkner
 Hall, Thomas W., Bel Air
 Hamilton, Isabel, Hyattsville
 Harlan, Doris E., Silver Spring
 Harryman, Thomas D., Baltimore
 Headley, Lawrence C., College Park
 Heaps, Laura F., Cardiff
 Heaps, Mary M., Cardiff
 Heffernan, Maryelene, Washington, D. C.
 Heintze, Ruth W., Takoma Park
 Hilton, E. Jane, Mt. Airy
 Hobbs, Dorothy M., Linden
 Katz, Lillian, Washington, D. C.
 Keller, Ralph W., Frederick
 Kellermann, Eileen A., Hyattsville
 Krumpach, Mary E., Luke
 Lee, Frank D., Baltimore
 Lightfoot, Georgiana C., Takoma Park

Long, E. Genevieve, Marion
 Lovell, Grace R., Brentwood
 Lowry, Ruth V., Baltimore
 Maxwell, Edna C., Luke
 Mazer, Robert, Baltimore
 Miller, Aden T., Lonaconing
 Moore, Elizabeth A., Queen Anne
 Morgan, Alice S., Washington, D. C.
 O'Keefe, Bernice E., Rockville
 Polack, Bella R., Hagerstown
 Robinson, Grace E., Baltimore
 Shamberger, Ruth C., Baltimore
 Shaw, Roberta F., Stewartstown, Pa.
 Shearer, Kathleen M., College Park
 Sheridan, Richard B., Salisbury
 Shipley, Cora L., Branchville
 Sinclair, Dorothy L., Washington, D. C.
 Smith, Ruth R., Washington, D. C.
 Snyder, Faye D., Annapolis
 Sullivan, Ross H., Pleasantville, N. J.
 Surgent, Michael G., Eckley, Pa.
 Swanson, Margaret E., Washington, D. C.
 Weisberg, Bertha, Baltimore
 Weller, Lucille B., Beallsville
 Wetherby, Edith H., Welch, W. Va.
 Wheeler, Elwood L., Glyndon
 Wisner, Vivian D., Branchville
 Wolfe, William C., Mt. Union, Pa.

JUNIOR CLASS

Adams, Clifton L., Jr., Silver Spring
 Alperstein, Benjamin, Baltimore
 Anders, Anne F., Frederick
 Armiger, Virginia G., Pindell
 Aud, William E., Poolesville
 Bailey, Donald, Takoma Park
 Biskin, Shirley L., Takoma Park
 Bohlin, Mary H., Washington, D. C.
 Boose, D. Matilda, Washington, D. C.
 Bowling, Virginia P., Wicomico
 Bowman, Anne K., Annapolis Junction
 Bride, Crescent J., Rockville
 Burke, Myrtle G., McCoole
 Byers, G. Ellsworth, Lonaconing
 Cronin, F. Harford, Joppa
 DuShane, Doris A., Baltimore
 Eichlin, Doris E., Washington, D. C.
 Forman, Morris, Baltimore
 Fowble, Florence W., Reisterstown
 Freas, Karl G., Wheaton
 Freudenberger, John G., Baltimore
 Gordy, Eugene M., Snow Hill
 Guyther, Mary A., Mechanicsville

Haas, Alice C., Jenkintown, Pa.
 Handler, Sylvia, Kingston, N. Y.
 Hardesty, A. Marie, Newburg
 Howard, William F., Baltimore
 Huber, Nora L., Baltimore
 Hutzell, William E., Washington, D. C.
 Jack, Margaret C., Port Deposit
 Kalbaugh, Hazel L., Luke
 Kephart, Mary E., Taneytown
 Linn, Ruth L., State College, Pa.
 Manning, Laura, Silver Spring
 Matthews, Margaret E., Cambridge
 Mayes, Irvin C., Jr., Timonium
 Michelson, Elaine, Baltimore
 Mileto, Catherine, Annapolis
 Murphy, Celia E., Walkersville
 Nevy, Inez A., Cumberland
 Powell, Dorothy M., Dorsey
 Rabinowitz, Alex, Brooklyn, N. Y.
 Rawley, Betty E., Hyattsville
 Schutz, Patricia B., Annapolis
 Smith, Blair H., Mt. Rainier
 Smith, Elizabeth J., Salisbury

Smith, Mildred E., Walkersville
 Sollod, Leonard, Baltimore
 Sparling, Edith R., Washington, D. C.
 Speake, Mary M., Luray, Va.
 Stevan, Diana, Baltimore
 Sullivan, Evelyn L., Hyattsville

SOPHOMORE CLASS

Aitcheson, Genevieve, Laurel
 Ames, Ann C., Westmoreland Hills
 Baitz, Mildred, Washington, D. C.
 Barker, Marian E., Washington, D. C.
 Bono, Ann M., Washington, D. C.
 Bono, Vivian E., Washington, D. C.
 Bowling, Thelma P., Faulkner
 Brokamp, Raymond W., Linthicum Heights
 Burroughs, E. Elizabeth, Mechanicsville
 Case, Sara V., Felton, Del.
 Chronister, Mason, Baltimore
 Cline, Carl A., Jr., Monrovia
 Collins, Hiram H., Crisfield
 DeVore, Clair E., Cumberland
 Dorsey, Margaret F., Baltimore
 Duncan, Laura R., District Heights
 Dunn, Katherine C., Silver Spring
 Egan, John J., Waterbury, Conn.
 Evans, Hal K., Bladensburg
 Fricke, Annamaria H., Baltimore
 Garonzik, Ruth, Baltimore
 Gisriel, Austin E., Elkridge
 Goldberg, Helen E., Kingston, N. Y.
 Greengold, H. Ruth, Annapolis
 Griffin, Margaret E., Baltimore
 Griffith, Ann M., Rockville
 Grindel, Jane H., Frostburg
 Groves, Helen V., Cumberland
 Hart, Richard K., Hagerstown
 Hottel, Betty L., College Park
 Iager, Helen E., Hyattsville
 Jarboe, Ann E., Leonardtown
 Jones, John S., Jr., Washington, D. C.
 Kehoe, James H., Bel Air
 Kemp, Margaret C., College Park

FRESHMAN CLASS

Adams, Ellen C., Aberdeen
 Applegarth, Vivian E., Honga
 Arnold, William D., Baltimore
 Bell, Judson H., Aberdeen
 Bishopp, Hazel E., Silver Spring
 Blattman, Margaret M., Riverdale
 Bodine, Mildred V., Silver Spring
 Bollinger, G. Gladys, College Park
 Boose, Barbara E., Takoma Park, D. C.
 Boyda, John J., Iselin, Pa.
 Bright, Elmer F., Baltimore
 Butler, Isabel R., Edmonston

Summers, Mary E., Pulaski, Va.
 Trundle, Lucy W., Ashton
 Webster, Carolyn I., Pylesville
 Wheeler, Waverley J., Baltimore
 Williams, Dorothy E., College Park
 Yochelson, Aaron, Anacostia

Keys, Virginia A., Laurel
 King, Judith A., Washington, D. C.
 Knepley, George W., Altoona, Pa.
 Kornmann, Lucille V., Baltimore
 Kuhn, Eleanor M., Bethesda
 Legge, Jane M., Cumberland
 Leites, Israel, Baltimore
 Lewis, Francis A., Sykesville
 Link, Mary E., Baltimore
 Long, Virginia M., Selbyville, Del.
 Longest, Katherine A., Baltimore
 Mayes, Marian V., Phoenix
 McChesney, Douglas W., University Park
 Meade, James G., Port Deposit
 Mondorff, Pershing L., Emmitsburg
 Naughten, Edward T., Washington, D. C.
 Nordwall, Alice E., Princess Anne
 Norton, Charles A., Ogden, Utah
 O'Hara, William J., Gambrills
 Petersen, Olga C., Hyattsville
 Provenza, Dominic V., Baltimore
 Roesler, Herbert S., Bayard, Va.
 Ross, Mary L., Cumberland
 Ryon, Mary J., Waldorf
 Scharf, Thomas M., Glen Burnie
 Smith, Adria J., Baltimore
 Smith, Virginia E., Mount Airy
 Teal, Lois A., Hyattsville
 Tetlow, Robert M., Boyds
 Walsh, Ambrose J., Jr., Brentwood
 Weber, June E., Washington, D. C.
 Weidinger, Charles W., Baltimore
 Wellinger, Phyllis M., Hagerstown
 Wilson, N. Lorraine, Fulton

Everly, Martha E., Lisbon
 Fields, Thomas M., Hyattsville
 Flynn, E. Patricia, Washington, D. C.
 Forman, Sara, Washington, D. C.
 Gilleland, Catherine E., Chevy Chase
 Gray, Carolyn B., Poolesville
 Groesbeck, Philip F., Cocksackie, N. Y.
 Hall, Marguerite G., Baltimore
 Hurley, Robert F., Hyattsville
 Hyatt, Hilda M., Damascus
 Kahn, Estelle W., Baltimore
 Katz, Bertha, Washington, D. C.
 Kraft, Dorothy A., Washington, D. C.
 Lanahan, Reita M., Washington, D. C.
 Lancaster, Truman O., Washington, D. C.
 Main, Robert L., Seat Pleasant
 Maisel, Frederick C., Jr., Catonsville
 Maynard, Eurith L., Baltimore
 McFadden, Janet M., Mt. Rainier
 McLuckie, Virginia L., Cumberland
 McNeil, John P., Baltimore
 Melvin, Robert H., Washington, D. C.
 Moskey, Frances E., Washington, D. C.
 Murphy, Joseph M., Carney's Point, N. J.
 Murray, Norma L., Princess Anne
 Nelson, Clifford L., White Hall
 Nordwall, Frances L., Princess Anne
 Owings, Jane C., Riverdale
 Papanicolas, Gus J., Washington, D. C.

Poetzsch, Paul H., Baltimore
 Ramer, Evelyn J., Chevy Chase
 Resnick, Minnie M., Mt. Airy
 Rockstroh, Henry J., Ellicott City
 Ross, Betsy L., Takoma Park
 Rudo, Charles, Baltimore
 Sargeant, Lida E., Silver Spring
 Scharpf, Louise, Baltimore
 Schroeder, Leonard T., Annapolis
 Schwartz, Rosalind, New York, N. Y.
 Seligson, Mildred, Baltimore
 Shea, Katherine J., Holyoke, Mass.
 Smith, Paul H., Westmoreland Hills
 Smith, Robert H., Woodlyne, N. J.
 Stark, Mary E., Aberdeen
 Steele, Henry G., Washington, D. C.
 Stewart, Frank S., Arlington, Va.
 Stubbs, Mildred V., Mt. Rainier
 Tapper, Herman A., Baltimore
 Taylor, Morton F., Perryville
 Thomas, Elaine M., Mt. Rainier
 Thomas, Lester G., Mt. Rainier
 Trout, Maxine E., Walkersville
 Turner, Alice V., Washington, D. C.
 Waxler, Mary, Cambridge
 Wolfinger, Margaret E., Hagerstown
 Wood, M. Virginia, Washington, D. C.
 Zimmerman, Margaret C., Frederick
 Zinberg, Norma E., Richmond, Va.

PART TIME

Abbott, Kathryn K., Bennings, D. C.
 Alder, Betty L., Bethesda
 Alder, Grace L., Rockville
 Ashmun, Jean R., Washington, D. C.
 Baker, Robert L., Washington, D. C.
 Becraft, Mabel V., Washington Grove
 Benbow, Gene T., Clinton
 Benner, Willis A., Washington, D. C.
 Biggins, Gertrude L., Washington, D. C.
 Bomberger, Hulda B., College Park
 Boswell, Alice A., Brookeville
 Bowie, Andrew K., Hyattsville
 Brashears, Helen H., Hyattsville
 Burch, Elizabeth B., Charlotte Hall
 Burgess, Maurine D., Washington, D. C.
 Campbell, Marjorie H., Washington, D. C.
 Cantwell, Hammond D., Cambridge
 Casbarian, Louise W., Riverdale
 Chatham, Elizabeth E., La Plata
 Clapp, Alice R., Washington, D. C.
 Clark, Ellen N., Silver Spring
 Close, Marion B., Frostburg
 Coffey, Lillian S., Landover
 Collins, Thomas E., Brentwood
 Copes, Bessie E., Silver Spring
 Copes, Grace R., Silver Spring

Craig, Madie E., Brentwood
 Cross, Mary G., Rockville
 Dawson, Catherine B., Washington, D. C.
 Dominek, Mary R., College Park
 Dunn, May A., Hyattsville
 Durrant, Charlotte F., College Park
 Earle, Mary I., Washington, D. C.
 Faber, Anna P., College Heights
 Fedak, Marjorie B., Rockville
 Feddeman, Edna S., Washington, D. C.
 Grove, Edith M., Washington, D. C.
 Grubbs, Birdie A., Washington, D. C.
 Hardesty, Mae L., West River
 Hearne, Ethel G., La Plata
 Henderson, Esther L., Washington, D. C.
 Hiatt, Pearl M., Chevy Chase
 Hobbs, Thelma E., Mt. Airy
 Horton, Helen E., Cleveland, Tenn.
 Joyce, Agnes C., Frostburg
 Kaufman, Gee L., Washington, D. C.
 Kekenes, Athena, Mt. Rainier
 Kirby, Marion, Takoma Park
 Klink, May, Mt. Rainier
 Knotts, Dorothy E., Templeville
 Lambrides, John G., Laurel
 Lesser, Claire, Washington, D. C.

Lynch, Elizabeth, Washington, D. C.
 Martin, Grace W., Washington, D. C.
 Matthews, Abigail G., La Plata
 McCall, Mildred L., Washington, D. C.
 McKeever, Alice A., Silver Spring
 Meany, Elizabeth, Rockville
 Miller, Dorothy A., Hyattsville
 Monred, Ravenell A., Gaithersburg
 Moore, Nell M., Washington, D. C.
 Mudd, H. Virginia, Pomfret
 Myers, W. Constance, Hyattsville
 Nichols, Dorothy V., Chevy Chase
 Regan, Ethel M., Mt. Rainier
 Reich, Elinor G. J., La Plata
 Richmond, Nadine, Washington, D. C.
 Ricketts, Lulu B., Brookeville
 Rose, Anna P., Kensington
 Scates, Irene, Gaithersburg
 Schaeffer, Carol J., Washington, D. C.
 Schwarzmann, Ethel M., Washington, D. C.
 Scop, Abraham, Catonsville

Smith, Gladys H., Washington, D. C.
 Smith, Miriam O., Bethesda
 Sothoron, Julia H., Charlotte Hall
 Stanley, A. Jeanne, Silver Spring
 Turner, Edward C., La Plata
 Turner, Emily B., Aquasco
 Uhrinak, George J., Riverdale
 Walker, Louise S., Washington, D. C.
 Webb, Margaret O., Hyattsville
 Weld, Ruth, Sandy Spring
 West, Dorothy H., Sligo Park Hills
 Wheeler, Elsie L., Silver Spring
 White, Ruth O., Mt. Rainier
 Willard, Helen L., Poolesville
 Wilson, Elinor G., Washington, D. C.
 Wine, Hilda K., Washington, D. C.
 Wisner, Jackson W., Rockville
 Yeager, Mildred F., Laurel
 Young, Irene, Silver Spring
 Zimmerman, Marian A., Washington, D. C.
 Zulick, Charles M., Houtzdale, Pa.

UNCLASSIFIED

Sullivan Mary S., Frostburg

EXTENSION TEACHERS-TRAINING COURSES

(Industrial Education, Baltimore)

Aaronson, Philip J.
 Adkinson, Olney
 Anderson, Charles R.
 Annan, Clara
 Askew, Howard D.
 Auth, Jack W.
 Bachmann, Oswald E.
 Baer, A. Harris
 Ball, Frances H.
 Bargteil, Ralph
 Barnard, Ednah H.
 Barnes, Marie W.
 Barnes, May S.
 Baron, Herman L.
 Barrett, Mary E.
 Baughman, E. Elizabeth
 Baumgardner, Ralph W.
 Beall, Dallas I.
 Bell, Raymond E.
 Benner, Elisabeth
 Benson, Ida B.
 Bloomberg, Nance
 Borenstein, Olga
 Bosley, Edgar B. A.
 Bowen, Louise MacW.
 Britton, Margaret

Brooks, Helen
 Brusowankin, Bessie
 Buettner, John A., Jr.
 Bull, Carl E.
 Bullough, George Van Ness
 Bunce, Edward W.
 Burns, Thelma W.
 Cantwell, Hammond D.
 Capocci, Catherine F.
 Childs, William M.
 Colbert, Cecile
 Corbett, Ruth
 Crane, Amy Hicks
 Crist, Cornelia R.
 Davidson, David K.
 Degen, LeRoy G.
 Deitrich, Elmira H.
 Denowitch, Freda G.
 Dewling, Evelyn E.
 Doering, Ruth
 Dorsey, Catherine
 Dudderar, Charles W.
 Dunwoody, Ruth M.
 Edwards, Walter F.
 Ely, James H., Jr.
 Engle, Viva R.

English, Edith M.
 Etzkorn, Kathryn H.
 Everhart, William C.
 Ewing, Margaret T.
 Falk, Miriam
 Farrow, Blanche S.
 Farson, Eleanor M.
 Fisher, Gilbert C.
 Fisher, Joseph G.
 Frank, Paul S.
 Freedman, Norman N.
 Freeze, Frank L., Jr.
 Friedman, Isadore
 Galley, Joseph N.
 Gambrill, H. Nelson
 Garmer, William McK., Jr.
 Gilbert, Loren G.
 Gilbert, Roland A.
 Gill, Francis
 Gillan, Andrew S.
 Goden, Alan A.
 Gomborov, Minnie
 Graham, Margaret C.
 Grove, Elmer K.
 Gugliuzza, Joseph M.
 Haley, Lillian L.
 Hall, Elmer E.
 Hamel, W. Ramont
 Hansell, Cyril
 Hardy, Earl C.
 Harker, Mildred C.
 Haugh, Marian
 Hausmann, Ida M.
 Hawkins, Nannie M.
 Healey, William G.
 Healey, William G., Jr.
 Heathcote, Louis W.
 Hedrick, Lillian S.
 Hedrick, Melvin
 Heimiller, Wm. J. C.
 Heinz, Kathryn
 Hennick, Donald C.
 Hensen, Edward C.
 Hensen, Henry
 Herbert, Russell M.
 Heylmun, Stanley L.
 Himmel, Mildred
 Hisley, Lillian P.
 Hocheder, Harry P.
 Hoffman, Jennie Z.
 Hogan, Margaret M.
 Holden, Delma Mae
 Hollander, Anna
 Hollander, Eleanor
 Hollander, Margaret
 Horn, Robert H.
 Horvath, G. Kenneth
 Hunt, Richard G.
 Isabelle, Jos. O.
 Jacob, Felice E.
 Jennings, Margaret
 Jeschke, Cury A. H.
 Jirsa, Charles
 Johnson, Eldred D.
 Johnston, Ruth E.
 Jones, Julia E.
 Keating, Lyda
 Kidd, Frank
 Kleiman, Bernice
 Knorr, Helen E.
 Knotts, Dorothy E.
 Krapkat, Herbert M.
 Krause, Louise
 Krieger, Mildred B.
 Kuehn, Peter
 Kummel, Lillian
 Lantz, Naomi M.
 Latham, Helen H.
 Leonhart, Gail A.
 Levin, Sol
 Lewis, Dorothy E.
 Lodenkemper, Harvey C.
 Longford, Robert C.
 Lovering, Katherine A.
 McCann, Robert H.
 McCarriar, Herbert G.
 McCauley, Everett S.
 McDairmant, John
 McQuade, John F.
 Mahannah, Erwin
 Mainen, Allan
 Maltese, Stephen L.
 Manakee, Edward Y.
 Marshall, M. Ellen
 Matthaei, Lewis A.
 Matthews, Elizabeth P.
 Mattingly, Nellie B.
 Mele, Virginia M.
 Merkle, Clifford C.
 Meyer, Elmer Lee, Jr.
 Miller, Mayfort P.
 Miller, Ruth C.
 Morsberger, Mary B.
 Nachlas, Bernard
 Nathanson, David
 Nicol, Lindsay
 Norris, Cecil
 Odin, Hans P.
 O'Keeffe, Violet E.
 Oursler, Anna B.
 Peterson, Harold D.
 Pettit, Burnett A.
 Phillips, J. LeRoy
 Poetzsch, Paul H.
 Powell, George C.
 Proctor, James O.

Provenza, Anna M.
 Quinan, Allen J.
 Quinan, Charles R.
 Rachanow, Louis
 Randall, Roland E.
 Rankin, George T.
 Reynolds, Joseph R.
 Rich, Bessie A.
 Richards, Ruth
 Rivkin, Leon
 Rock, Charles V.
 Rummel, Edward F.
 Ruppel, Alvin G.
 Russell, Helen A.
 Sachs, Frank N.
 Sahlin, Emilie H.
 Sappington, Esther
 Saunders, Leslie M.
 Schorr, George W.
 Schubert, Florence H.
 Schwarzmann, George A.
 Selsky, S. Samuel
 Shepherd, Clarence M.
 Sheppard, Ethel C.
 Siegel, Esther F.
 Silbert, Keel I.
 Slade, Margaret E.
 Smith, Harold D.
 Spiegel, Anna
 Stauffer, Arden K.

Steigner, E. Paul
 Sweat, Algie Elizabeth
 Sweetland, Theodore R.
 Thomas, Eleanor L.
 Thompson, Madeleine M.
 Tustin, Howard D.
 Valle, Joseph
 Valle, Philip J.
 Vansant, Lillian H.
 Wachsman, Celia
 Wahab, Charlotte E.
 Walker, J. Annabel
 Waltham, Wm. Alan
 Weigate, Charles
 Weiland, Richard Wm.
 Weisberg, Maurice M.
 West, Elmer P.
 Whipple, Stanley R.
 White, Clinton E. W.
 White, Walter S.
 Wilkison, John Wm.
 Willhide, Elsa H.
 Williams, L. Leighton
 Williams, Margaret G.
 Wilson, Hugh
 Wolfe, Charles
 Woolf, Samuel
 Wroten, Arthur A.
 Yoder, Minnie Merle

COLLEGE OF ENGINEERING

SENIOR CLASS

Andrews, John T., Baltimore
 Backhaus, Albert P., Baltimore
 Bennett, Joseph H., Washington, D. C.
 Bishoff, Frederick M., Washington, D. C.
 Bowman, George A., Annapolis Junction
 Brookhart, George C., Jarrettsville
 Browning, John R., Washington, D. C.
 Cladny, Harold, Washington, D. C.
 Collins, Ralph A., Jr., Washington, D. C.
 Collison, Malcolm N., Takoma Park
 DeArmey, F. T., Windber, Pa.
 Diggs, Robert S., Baltimore
 Goldbeck, Page, Chevy Chase
 Goldberg, Paul, Baltimore
 Gray, Vernon H., Chevy Chase
 Harris, Frederick, Washington, D. C.
 Hollister, Curtis L., Washington, D. C.
 Horman, Austin S., Baltimore
 Kennedy, Edward J., Baltimore
 Kluckhuhn, Frederick H., Laurel
 Korab, Arnold A., Colmar Manor
 Latterner, Henry, Jr., Chevy Chase
 Mattingly, Robert L., Washington, D. C.
 Maynard, William G., Baltimore
 Meinzer, Roy C., Washington, D. C.
 Morgan, Lee, Washington, D. C.
 Owens, Herbert M., Federalsburg
 Parce, John R., Annapolis
 Phillips, Adon W., Bethesda
 Pierce, Charles H., Jr., Washington, D. C.
 Putman, Raymond S., Washington, D. C.
 Roundy, Paul V., Chevy Chase
 Savage, Alfred E., Washington, D. C.
 Schreiber, Irvin R., Washington, D. C.
 Shaffer, Thomas N., Washington, D. C.
 Siems, John L., Baltimore
 Smith, Warner T., College Park
 Sperry, Harold C., Baltimore
 Turnbull, James, Takoma Park
 Vernay, Howard A., Baltimore
 Walton, Robert L., Washington, D. C.
 Wolk, Reuben, Washington, D. C.

JUNIOR CLASS

Ashmun, Van S., Washington, D. C.
 Bartoo, Donald G., Hyattsville
 Bryant, William C., Takoma Park
 Budkoff, Nicholas A., Lynn, Mass.
 Collins, James E., Crisfield
 Corbin, Maurice E., Baltimore
 Davis, William B., Jr., Washington, D. C.
 DeArmey, John J., Windber, Pa.
 Elvove, Elies, Washington, D. C.
 Essex, H. Alfred, Washington, D. C.
 Etkind, Irving J., New Haven, Conn.
 Forrester, James L., Berwyn
 Franke, Harold H., Washington, D. C.
 Gerber, Sigmund I., Baltimore
 Gottlieb, Robert, Washington, D. C.
 Hall, Herbert P., Washington, D. C.
 Harvey, Cecil L., Washington, D. C.
 Hennighausen, Louis K., Baltimore
 Hewitt, Frederic M., Baltimore
 Holbrook, Charles C., College Park
 Horne, John F., Chevy Chase
 Hutton, Joel W., College Park
 Janes, Henry W., Anacostia, D. C.
 Jones, Stephen H., Leonardtown
 Krafft, Robert E., Washington, D. C.
 Lasswell, Philip M., Takoma Park
 Lynham, John C., Hyattsville
 McClenon, Donald, Takoma Park
 McGill, Lloyd H. R., Baltimore
 Mitchell, David H., Washington, D. C.
 Morris, Francis C., Washington, D. C.
 Mueller, Eugene F., Jr., Washington, D. C.
 Muncks, John D., Baltimore
 Peck, Alvin, Washington, D. C.
 Perkins, Fred W., Jr., Chevy Chase
 Phillips, Irving, Washington, D. C.
 Porter, Wade T., Washington, D. C.
 Robertson, Elliott B., Bethesda
 Scott, Elgin W., Washington, D. C.
 Seeley, George E., Baltimore
 Simms, Harvey C., Washington, D. C.
 Smith, John P., Jr., Washington, D. C.
 Smith, Welch, Washington, D. C.
 Stabler, Sydney S., Hyattsville
 Stedman, Henry T., Catonsville
 Stevens, John W., Takoma Park
 Thompson, T. Manning, Washington, D. C.
 Wettje, Robert H., Riverdale
 Wharton, Thomas P., College Park
 Willett, LeRoy G., Washington, D. C.
 Witt, Emitt C., Washington, D. C.
 Yourtee, Leon R., Brownsville

SOPHOMORE CLASS

Albarano, Ralph J., Willow, Pa.
 Amos, Wallace R., Silver Spring
 Baldwin, Robert D., Riverdale
 Bamman, Richard K., Coltons Point
 Bebb, Edward K., Chevy Chase
 Berg, Charles M., Baltimore
 Booze, William C., Mt. Washington
 Brand, Robert A., Washington, D. C.
 Brashears, Richard S., Washington, D. C.
 Brauns, William P., Jr., Odenton
 Brockman, Roy C., Baltimore
 Brookes, Thomas R., Bel Air
 Camardi, Nicholas J., Washington, D. C.
 Carpenter Byron L., Washington, D. C.
 Carroll, Richard W., Philadelphia, Pa.
 Chilcoat, Ralph L., Washington D. C.
 Clarke, Joseph A., Jessup
 Cole, Albert H., Linthicum Heights
 Coleman, Thomas L., Washington, D. C.
 Corkran, William H., Trappe
 Cox, Junior N., Baltimore
 Cranford, Leonard C., Washington, D. C.
 Davidson, Donald C., Washington, D. C.
 Davis, Warren P., Washington, D. C.
 Dorr, George W., Washington, D. C.
 Emrich, William S., Hebron
 Farnsworth, John K., Washington, D. C.
 Farrall, John A., Washington, D. C.
 Fletcher, Arthur W., Linthicum Heights
 Folk, William C., Washington, D. C.
 Gallagher, Harry G., Relay
 Gessford, Richard L., Mt. Rainier
 Graham, William M., Baltimore
 Greenwood, Orville W., Brentwood
 Hart, Robert L., Hagerstown
 Heghinian, Garabed, Baltimore
 Herbert, Wilbur M., Baltimore
 Herman, Harold, Washington, D. C.
 Herrmann, Edward M., Baltimore
 Jackson, Robert L., Bethesda
 Kaminski, Joseph, Baltimore
 Kestler, Paul G., Baltimore
 Kimball, Henry F., Washington, D. C.
 King, Thomas O., Savage
 Kinney, Robert W., Washington, D. C.
 Kirby, James T., Trappe
 Knust, Herman R., Jessup
 Kreuzberg, Harvey W., Silver Spring
 Lane, John E., Washington, D. C.
 Lanham, Paul T., Lanham
 Lanigan, James M., Washington, D. C.
 Lapoint, George M., Catonsville
 Lee, Gin H., Washington, D. C.
 LeMat, Lee E., Washington, D. C.
 Lodge, Robert J., Baltimore
 Lozupone, Frank P., Chevy Chase

Males, Irwin I., Washington, D. C.
 Marzolf, Joseph M., Jr., Deale
 Meeks, George E., Washington, D. C.
 Meyer, Carl W., Baltimore
 Moran, Joseph T., Westernport
 Mulitz, Milton M., Washington, D. C.
 Northrop, Sanford E., Hagerstown
 Odell, Charles N., Ellicott City
 O'Farrell, Rufus E., Jr., Washington, D. C.
 Oswald, Huyette B., College Park
 Otten, Leonard J., Parkville
 Parsons, Charles R., Washington, D. C.
 Purdum, William D., Glyndon
 Rector, Ralph L., Washington, D. C.
 Riley, Thomas W., Germantown
 Ripple, Roland C., Cheltenham
 Roberts, E. Richard, Washington, D. C.
 Russell, Joseph S., Maddox
 Schwartz, Charles H., Branchville
 Scott, Roy F., Washington, D. C.
 Shaw, Bowen W., Silver Spring
 Shipe, John K., Washington, D. C.
 Slicer, William A., Gaithersburg
 Speare, Almus R., Jr., Rockville
 Steiner, Warren E., Washington, D. C.
 Stewart, Carl H., Jr., Baltimore
 Storrs, Gardner H., Linthicum Heights
 Strausbaugh, Donn P., Chevy Chase
 Talone, Edward R., Brentwood
 Warner, Robert E., Baltimore
 Watkins, William H., Washington, D. C.
 Weeks, Loraine H., Mt. Lake Park
 Whalen, Stanley M., Mt. Rainier
 Wheeler, Francis W., Silver Spring
 Wilson, J. Gibson, Washington, D. C.
 Wilson, Robert M., Washington, D. C.
 Yocum, Wilbur F., Chevy Chase
 Young, Charles M., Washington, D. C.

FRESHMAN CLASS

Abarca, Jose F., San Juan, P. R.
 Abbe, Gilbert, College Park
 Altman, Edward R., Washington, D. C.
 Anderson, Philip R., Bay Ridge
 Bauernschmidt, John N., Baltimore
 Bengoechea, Adam, Chevy Chase
 Betts, Allen W., Chevy Chase
 Bittinger, Francis G., Washington, D. C.
 Blazek, Frank J., Baltimore
 Boice, John E., Jr., Washington, D. C.
 Bollinger, George W., Elkton
 Bradley, Alan T., Baltimore
 Bralove, William, Jr., Washington, D. C.
 Bridge, Herbert S., Takoma Park
 Brinson, John R., Brentwood
 Brown, Sewell A., Jr., Baltimore
 Brucker, Fredric L., Jr., Sparrows Point
 Caldwell, Carl D., Washington, D. C.
 Callahan, William H., Baltimore
 Capps, Overton B., Jr., Baltimore
 Carter, John M., Baltimore
 Cavey, Daniel J., Baltimore
 Clark, John W., Jr., Hancock
 Clark, Thomas C., Hanover
 Cochrane, Robert B., Jr., Baltimore
 Condon, Robert D., Baltimore
 Crockett, David T., Jr., Hagerstown
 Cromwell, Howard L., Washington, D. C.
 Crum, Bernard G., Baltimore
 Crump, Ralph F., Frostburg
 Damuth, Donald R., Baltimore
 Darling, William M., Washington, D. C.
 Day, Rodney R., Bethesda
 Devlin, Joseph J., Catonsville
 Dix, Francis, Washington, D. C.
 Dougherty, Stanley S., Washington, D. C.
 Dove, Jack E., Washington, D. C.
 Downs, Hugh G., Jr., Hagerstown
 Duey, Homer G., New Brighton, Pa.
 Edgerton, James F., Washington, D. C.
 Emmerich, George M., Silver Spring
 Evans, Kenneth J., Takoma Park
 Eyler, John D., Jr., Baltimore
 Farley, Belmont G., Washington, D. C.
 Finton, James R., Washington, D. C.
 Fisher, David, Baltimore
 Fishkin, Joseph, Washington, D. C.
 Flanagan, Francis, Jr., Fort Meade
 Ford, Harry S., Silver Spring
 Fox, Gabriel, Washington, D. C.
 Freeze, Paul D., Thurmont
 Frye, William M., Mt. Rainier
 Gannon, William F., Westernport
 Garlitz, Vincent L., Cumberland
 Gienger, George H., Scottsville, Va.
 Gore, Bertram W., Baltimore
 Greene, Joseph G., Fort George G. Meade
 Groves, Robert A., Woodlawn
 Haddaway, Vaden J., Woodlawn
 Hall, Lacy, Bennings, D. C.
 Hall, Thomas A., Washington, D. C.
 Hancock, Charles W., Baltimore
 Harmon, Robert B., Takoma Park
 Haskin, Lawrence H., Takoma Park
 Hatchett, Samuel E., Washington, D. C.
 Hawkins, Edward C., Catonsville
 Heil, George J., Baltimore
 Heitz, Albert W., Washington, D. C.
 Hink, Henry M., Annapolis Junction
 Hitch, Thomas E., Washington, D. C.
 Hodges, Raymond L., St. Ingoes
 Hodgins, Lawrence J., College Park
 Hollomon, James E., Catonsville
 Holloway, John J., Jr., Silver Spring

Hopkins, George C., College Park
 Hopkins, Page F., Silver Spring
 Hughes, Thomas A., Washington, D. C.
 Imus, Alden E., Mt. Rainier
 Jones, Nelson R., Washington, D. C.
 Joyce, Joseph M., Hyattsville
 Kaiser, Herman F., Washington, D. C.
 Keller, Holly M., Bethesda
 Kinder, Gilbert E., Millersville
 Klug, Howard J., Washington, D. C.
 Laughead, Robert W., Bethesda
 Leaf, Albert L., Williamsport
 Leland, Charles R., Baltimore
 Lumsden, Milton G., Baltimore
 Maidens, William A., Washington, D. C.
 Maloney, William F., Baltimore
 Markline, Donald D., White Hall
 Marzolf, John C., Deale
 Mattingly, Robert D., Riverdale
 McCusker, Richard W., Pikesville
 McGee, John K., Silver Spring
 Mehring, Arthur C., Bennings, D. C.
 Mericle, John P., Washington, D. C.
 Mitchell, Walter G., Takoma Park
 Money, Clarence L., Washington, D. C.
 Moore, Harry H., Washington, D. C.
 Mulligan, Walter F., Jr., Berwyn
 Murphy, Donald F., Baltimore
 Nauss, Allen H., Baltimore
 Norris, John H., Baltimore
 Oberle, William F., Dundalk
 Onnen, Donald S., Baltimore
 Parker, Charles E., Washington, D. C.
 Peters, Roy F., Washington, D. C.
 Pfeiffer, Arthur M., Jr., Baltimore
 Piozet, Charles F., Hyattsville
 Plant, Edward F., Lanham
 Poole, Lewis A., Annapolis
 Pope, Llewellyn N., Washington, D. C.
 Powell, John M., Dorsey
 Pyles, George V., Anacostia, D. C.
 Randall, Joseph H., Boyds
 Randall, Philip A., Washington, D. C.
 Rausch, Charles A., Baltimore
 Rawley, Weldon N., Jr., Hyattsville
 Reckner, Jack V., Severna Park

Reynolds, Austin R., Baltimore
 Rife, John W., Baltimore
 Rimmer, William, University Park
 Royall, Wilbur M., Silver Spring
 Roylance, Donald C., Glenn Dale
 Saltzman, Ernest C., Washington, D. C.
 Saum, Irving, East Riverdale
 Schlenoff, Maurice, Baltimore
 Schlieder, Loren R., Baltimore
 Schmidt, Earl W., Catonsville
 Schultz, Charles P., Elkridge
 Scribner, Kimball J., Washington, D. C.
 Sesso, Raymond F., Washington, D. C.
 Sexton, Martin J., Baltimore
 Shaffer, Richard W., Denton
 Shaw, Thomas C., Baltimore
 Shivoder, Charles A., Ferguson
 Showacre, Harold G., Baltimore
 Siebeneichen, Paul O., Washington, D. C.
 Simmons, Dennis M., Bethesda
 Sloan, James D., Cumberland
 Smith, Stanley H., Jr., Takoma Park
 Staines, Powell R., Jr., Severna Park
 Stevens, John F., III, Annapolis
 Stevenson, John W., Baltimore
 Streep, Samuel, Cheverly
 Suter, Walter H., Jr., Baltimore
 Thompson, Jack H., Chevy Chase
 Timberlake, Turner G., Magnolia
 Tool, Arthur Q., Jr., Takoma Park
 Tyson, Clifford W., Takoma Park
 Walker, John S., Silver Spring
 Watkins, Frank G., Baltimore
 Watson, Thomas E., Jr., Washington, D. C.
 Weathersbee, Frank B., Washington, D. C.
 Webster, Edward, Washington, D. C.
 Weikel, Stewart F., Baltimore
 Westfall, Robert R., Snow Hill
 Widener, Fredy D., Baltimore
 Wier, John B., Sparks
 Williams, Floyd D., Washington, D. C.
 Wilson, Henry D., Takoma Park
 Witherspoon, Fred L., Silver Spring
 Woodward, Ralph A., Port Republic
 Worden, John F., Berwyn
 Wynn, Harry T., Brentwood

PART TIME

Chappelear, James A., Washington, D. C.
 Leyba, Joseph M., New York, N. Y.
 O'Connell, Daniel T., Washington, D. C.
 Utecht, Alfred M., College Park

UNCLASSIFIED

Wyche, Crosby, Charlotte Hall

GRADUATE SCHOOL

Adams, John R., Jr., Takoma Park
 Aiken, Leonora, Chevy Chase
 Algire, Glenn H., Baltimore
 Allard, Howard F., Arlington, Va.
 Allen, Benjamin F., Baltimore
 Allison, Herbert M., Hyattsville
 Alperstein, Reuben R., Baltimore
 Anderson, Richard P., Baltimore
 Andrus, C. Fred, Washington, D. C.
 Appler, Helen I., Washington, D. C.
 Archer, Louise V., Washington, D. C.
 Asadorian, Ara A., Providence, R. I.
 Backus, Lucile M., Silver Spring
 Baerwald, Frances C., Baltimore
 Balch, Clyde W., Hyattsville
 Baldwin, David H., Jr., Washington, D. C.
 Baldwin, Willis H., Havre de Grace
 Bartholdi, Wendell L., Salisbury
 Barzhe, Jean, Riverdale
 Bates, Tilly S., Baltimore
 Bayley, John S., Baltimore
 Beck, Frances F., Baltimore
 Beck, Sylvan E., Baltimore
 Bellman, Frank A., Baltimore
 Bellows, John M., Jr., Maynard, Mass.
 Bennett, Elizabeth L., Frostburg
 Bertschy, Harry A., Gaithersburg
 Bickley, William E., Jr., Martel, Tenn.
 Billings, Samuel C., Silver Spring
 Blackmore, John, Pullman, Wash.
 Booth, Frances S., Baltimore
 Bower, Francis M., Mt. Rainier
 Bowers, John L., Troy, Texas
 Boyles, William A., Hyattsville
 Bready, Helen P., Silver Spring
 Brechbill, Edith L., College Park
 Brenner, Abner, Washington, D. C.
 Brewer, Charles M., Hyattsville
 Brooks, Paul S., Buckhannon, W. Va.
 Brown, Ruth L., Frederick
 Brownlee, Donald S., Alva, Okla.
 Bryan, Jack Y., Washington, D. C.
 Bryan, Samuel, Washington, D. C.
 Buddington, Arthur R., College Park
 Buhrow, Viola M., Washington, D. C.
 Burdette, Roger F., College Park
 Burslem, William A., Hyattsville
 Byrer, M. Virginia, Martinsburg, W. Va.
 Carhart, Homer W., Santiago, Chile
 Carl, Howard F., Washington, D. C.
 Carroll, Floyd D., Bostwick, Neb.
 Carter, Edward P., College Park
 Carver, Lynda M., Washington, D. C.
 Chadwick, Louise A., Washington, D. C.
 Chandler, Frederick B., Orono, Me.
 Citrin, Estelle, Washington, D. C.

Coles, Elsie R., Elkton
 Colip, Louise R., Riverdale
 Conrad, Monima R., Takoma Park
 Cordish, Hilda, Baltimore
 Cox, B. Frank, College Park
 Creitz, E. Carroll, Beloit, Kan.
 Cron, Lawrence E., Alamo, Texas
 Crosby, Muriel E., Washington, D. C.
 Cross, John M., Passaic, N. J.
 Crossman, Mora, Rowlandville
 Crow, Jane H., Mocksville, N. C.
 Cullen, James G., Glen Burnie
 Custis, William K., Riverdale
 Dahn, Eloise, Chevy Chase
 Dantzig, Anne S., Hyattsville
 Davidson, Nellie M., Silver Spring
 Davis, Edward F., Arlington, Va.
 Dawson, Roy C., Washington, D. C.
 Dedinsky, Joe S., Smock, Pa.
 DeDominicis, Amelia C., Baltimore
 Deemer, Ralph B., Takoma Park
 Dittmar, Gordon F., Baltimore
 Dittrich, Theodore T., Baltimore
 Donnally, Bessie S., Washington, D. C.
 Douglass, Edgar M., Washington, D. C.
 Draper, Mary E., Baltimore
 Dugan, Raymond, Poolesville
 Duncan, Sven S., Silver Spring
 Dunker, Melvin F. W., Baltimore
 Duvall, Maude R., Rockville
 Duvall, Wilbur I., Gaithersburg
 Edwards, William W., Silver Spring
 Eiseman, John H., Chevy Chase
 Elmore, Edna E., Washington, D. C.
 Emshwiller, Susie B., Washington, D. C.
 Endler, Abraham S., New York, N. Y.
 Enten, Harry, Baltimore
 Ervin, Guy, Jr., Falls Church, Va.
 Evans, Dorothy E., Takoma Park
 Everhart, Herbert W., Kearneysville,
 W. Va.
 Fand, Isidore, Brooklyn, N. Y.
 Finkbinder, Roberta E., Baltimore
 Fisher, Ralph C., Hyattsville
 Florestano, Herbert J., Annapolis
 Fogelgren, Helen D., Mansfield, Ohio
 Forman, Sylvan E., Baltimore
 Fosbroke, Gerald E., Elkridge
 Foster, Carroll P., Baltimore
 Fraas, Foster C., College Park
 Frazer, Mary W., Bethesda
 Freeman, Andrew F., Hyattsville
 Friedberg, Minna C., Baltimore
 Friedman, David, Silver Spring
 Friedman, Harold B., Silver Spring
 Friedman, Jessica E., Baltimore

Frush, Harriet L., Pella, Iowa
 Fulton, George P., Carlisle, Pa.
 Gaddis, Adam M., Brown
 Gammon, Nathan, Jr., Washington, D. C.
 Gersh, Edith D., Baltimore
 Gibson, Margaret H., Washington, D. C.
 Gilbert, Loamie M., Jr., Benson, N. C.
 Glasgow, Augustus R., Jr., Hyattsville
 Glickman, Shirley M., Baltimore
 Goldberg, Charles, Brooklyn, N. Y.
 Goldberg, Joseph L., Chester, Pa.
 Golden, Lex B., Washington, D. C.
 Graff, Frances B., Baltimore
 Graham, James G., Washington, D. C.
 Gray, Elizabeth K., Baltimore
 Greenwood, Grace-Louise, Brentwood
 Griffith, Francis D., Brandy, Va.
 Gwynn, Thomas S., Jr., Clinton
 Haas, Frances S., Takoma Park
 Haenni, Edward O., Takoma Park
 Haller, Harrison S., Washington, D. C.
 Hanzlik, Henry J., Swarthmore, Pa.
 Hardell, Nellie G., Washington, D. C.
 Harman, William E., Accident
 Harris, Kenton L., College Park
 Hartman, Jack D., Columbia, S. D.
 Haszard, Frank K., Hyattsville
 Heagy, Albert B., College Heights
 Heller, Hugh A., Atlantic City, N. J.
 Herring, Charles E., Jr., Baltimore
 Herstein, Frederick E., Brooklyn, N. Y.
 Herzog, Helen M., Baltimore
 Hiatt, Edwin P., Wilmington, Ohio
 Hickman, Mildred M., Washington, D. C.
 Hipp, Norbert J., Washington, D. C.
 Hirshfeld, Martin A., Brooklyn, N. Y.
 Hitz, Chester W., Fortescue, Mo.
 Hoadley, Alfred D., Swarthmore, Pa.
 Hoadley, Frank T., Chevy Chase
 Hobbs, Robert B., Washington, D. C.
 Hodges, Leslie C., Rockville
 Hoene, Mary A., Baltimore
 Hollis, Edgar H., Frederick
 Holmes, George K., Washington, D. C.
 Horne, William A., Chevy Chase
 Hoseh, Mordecai, Hyattsville
 Hoshall, Edward M., Baltimore
 House, Bolton M., College Park
 Howard, Addie J., Hyattsville
 Howard, Frank L., Hyattsville
 Humelsine, Carlisle H., Hagerstown
 Hunt, Richard M., Washington, D. C.
 Ide, Frances A., College Heights
 Ives, J. Russell, College Park
 Jansen, Eugene F., Takoma Park
 Jarrell, Temple R., Berwyn
 Jeffers, Walter F., Berwyn
 Jehle, Ruth A., Hyattsville

Jewell, Edgar, Damascus
 Jones, Elinor I., Prince Frederick
 Jones, Elsie C., Harpers Ferry, W. Va.
 Jones, Howard A., Washington, D. C.
 Jump, Margaret D., Queen Anne
 Kalousek, George L., Washington, D. C.
 Kauffman, Wilbur R., Washington, D. C.
 Kelsey, Harry E., Laurel
 Keppel, James E., Pittsburgh, Pa.
 Kensinger, Pauline, Baltimore
 Killingsworth, Fredric K., Pikesville
 Klitzner, Frank, Baltimore
 Knowlton, John W., Bethesda
 Kolodner, Lee B., Baltimore
 Kraemer, Leonard S., Baltimore
 Kraybill, Herman F., Marietta, Pa.
 Lachar, George P., Detroit, Mich.
 Laden, Hyman N., Philadelphia, Pa.
 Lahey, Mary A., Wichita, Kan.
 Lakin, Hubert W., Silver Spring
 LaMar, Austin A., Sandy Spring
 Lambertson, Berenice G., Washington, D. C.
 Lang, Theodore H., Brooklyn, N. Y.
 Lanham, William B., Jr., Silver Spring
 Lann, Joseph S., Washington, D. C.
 Lee, Charles F., Brentwood
 Leed, Russell E., Denver, Pa.
 Leendertse, Pete H., Wichita, Kan.
 Lentz, Joe W., Washington, D. C.
 Levin, Irvin, Baltimore
 Levin, Nathan, Baltimore
 Levinsky, Daniel J., Washington, D. C.
 Levy, Frank F., Baltimore
 Lewandowski, Thaddeus, Brooklyn, N. Y.
 Love, Solomon, Washington, D. C.
 Lowe, Charles S., Takoma Park
 Loyd, Charles M., Valley Center, Kan.
 Luthy, Helen G., Baltimore
 Maddox, Louise, Hyattsville
 Magill, Gwendolyn, Washington, D. C.
 Marks, William B., Silver Spring
 Marshall, Ruth T., Bristol, Tenn.
 Marth, Paul C., Takoma Park
 Masure, Mortimer P., Chicago, Ill.
 Matheson, Harry, Washington, D. C.
 Matson, Ruby I., Takoma Park
 Mayer, Elmer L., Hyattsville
 McCann, Lewis P., Dayton, Ohio
 McCollum, Frank L., Jonesport, Me.
 McGinity, Francis R., Baltimore
 McNamara, Bernard P., Baltimore
 McVey, Warren C., Brentwood
 Miller, Fred L., Mt. Rainier
 Miller, Roman R., Washington, D. C.
 Mohlhenrich, Gretchen E., Baltimore
 Monke, J. Victor, Baltimore
 Moore, Robert R., Sandy Spring
 Morgan, Esthelene W., Chevy Chase

Mulholland, Elizabeth A., Baltimore
 Moskey, Thomas A., Arlington, Va.
 Munson, Sam C., Kosciusko, Miss.
 Murphy, Harry T., Ellicott City
 Nash, Carroll B., College Park
 Nellis, David C., Takoma Park
 Nixdorff, Helen P., Baltimore
 Nixon, Ruth A., Des Moines, Iowa
 Noble, Wesley M., Washington, D. C.
 Nolan, Edna P., Mt. Rainier
 Nolte, William A., Washington, D. C.
 Nordby, Aagot F., Washington, D. C.
 Olson, Rodney A., Somerville, Mass.
 Ortenzio, Louis F., College Park
 Osborn, James M., Washington, D. C.
 Ost, Walter M., Takoma Park
 Ostrolenk, Morris, Washington, D. C.
 Owings, Eva M. R., Baltimore
 Pahlman, Margaret B., Easton
 Pelczar, Michael J., Jr., Stemmers Run
 Perlmutter, Frank, Newark, N. J.
 Peterson, Robert F., Washington, D. C.
 Pettit, Alfred B., Hyattsville
 Pezzuti, John E., Homer City, Pa.
 Pitts, Dorothy H., Baltimore
 Pottinger, Samuel R., Washington, D. C.
 Pryor, Robert L., Lantz
 Puncochar, Joseph F., Takoma Park
 Purdum, William A., Baltimore
 Pyles, William G., Hancock
 Raudonis, John A., Baltimore
 Ravitch, Irene, Baltimore
 Reinhart, Frank W., Takoma Park
 Remington, Jesse A., Jr., Laurel
 Reynard, George B., Hiram, Ohio
 Rhodes, Harry C., Poolesville
 Rice, John E., Washington, D. C.
 Riley, Virginia L., Snow Hill
 Roberts, Grace C., Baltimore
 Robertson, Roy L., Elkton
 Rose, Frank W., Jr., Washington, D. C.
 Schechter, Milton S., Brooklyn, N. Y.
 Schmidt, Oswald, Baltimore
 Schneiter, Roy, Silver Spring
 Schwab, Frank W., Washington, D. C.
 Scott, Donald H., Washington, D. C.
 Scott, Sue G., Baltimore
 Scribner, Bourdon F., Washington, D. C.
 Seiler, Frances J., Baltimore
 Sessions, Ruth W., Bethesda
 Shay, Donald E., Lebanon, Pa.
 Shear, Cornelius B., Arlington, Va.
 Shepherd, Boland B., Orrum, N. C.
 Shepley, D. Carroll, Myersville
 Shirk, Harold G., West Lawn, Pa.
 Simpson, Vernon R., Ashton
 Singer, Louis, Washington, D. C.
 Sixbey, George L., Mayville, N. Y.

Skelton, Bessie W., Hyattsville
 Skinner, Mildred L., Cambridge
 Sklar, Louise, Manhattan, Kan.
 Slade, Hutton, Baltimore
 Slavin, Morris, College Park
 Small, Florence F., Hyattsville
 Smith, Carl B., Delta, Utah
 Smith, Leonard, Washington, D. C.
 Smith, Margret W., Hyattsville
 Snyder, Ethel, Laurel
 Sockrider, Elsie M., Washington, D. C.
 Sookne, Arnold M., Washington, D. C.
 Speaker, Clare J., Washington, D. C.
 Speck, Marvin L., Middletown
 Spicer, Helen E., Takoma Park
 Spicknall, Florence L., Hyattsville
 Spiers, Robert D., Philadelphia, Pa.
 Stanton, William A., University Park
 Steigner, Elizabeth R., Silver Spring
 Stephens, William A., Charlotte Hall
 Stewart, John R., Stevens, Pa.
 Stier, Howard L., Lisbon
 Stimson, Jesse L., Washington, D. C.
 Stirton, Alexander J., Washington, D. C.
 Stokes, Charles S., Baltimore
 Studz, Helen, Baltimore
 Stull, William D., Madison, N. J.
 Sullivan, William N., Washington, D. C.
 Sumerford, Wooten T., Athens, Ga.
 Swango, William H., Omar, W. Va.
 Sweeney, Thomas R., Washington, D. C.
 Swern, Daniel, Brooklyn, N. Y.
 Swift, Elizabeth C., Hyattsville
 Sylvester, Donald M., Brooklyn
 Taylor, Myra C., Frostburg
 Taylor, John K., Mt. Rainier
 Teal, Dorcas R., Hyattsville
 Teeter, Viola C., Hyattsville
 Terrell, Harriet L., Baltimore
 Terrell, Isador B., Baltimore
 Terwilliger, W. Bird, Baltimore
 Thomas, Virginia E., Newark, Del.
 Thompson, Paul H., Baltimore
 Thrasher, Edward J., Washington, D. C.
 Tillson, Albert H., Arlington, Va.
 Titt, LaVeta G., Hyattsville
 Tomlinson, Mary V., North East
 Tompakov, Sylvan, Baltimore
 Trundle, David, Ashton
 Turner, Carla S., Takoma Park
 Tuve, Richard L., Washington, D. C.
 Twersky, Aaron N., Washington, D. C.
 Volckhausen, Walter R., New York, N. Y.
 Waldman, Flora E., Washington, D. C.
 Walker, Earnest A., Hyattsville
 Wallace, David H., Barclay
 Walton, William W., Hyattsville
 Webster, Mary E., Atlantic City, N. J.

Weis, Theo G., Takoma Park
 Wellman, Thelma M., Takoma Park, D. C.
 Welsh, Llewellyn H., Washington, D. C.
 Werkenthin, Theo. A., Washington, D. C.
 Wester, Robert E., Washington, D. C.
 Wheatley, Rosemary, Hyattsville
 Wheeler, Donald H., Takoma Park
 White, Cesarine B., College Park
 White, Richard O., College Park
 Whiteman, Thomas M., Forest Glen
 Williams, Edith M., Washington, D. C.
 Willingham, Charles B., Washington, D. C.
 Willman, Clara, Annapolis

Wilson, C. Merrick, Poolesville
 Wingate, Phillip J., Wingate
 Wiseman, Herbert G., Washington, D. C.
 Wolfe, John K., Washington, D. C.
 Wolfe, Winthrop C., Washington, D. C.
 Wolk, Jack, Washington, D. C.
 Woodbury, Ethel L., Baltimore
 Woods, Albert W., College Park
 Youch, Charles A., Baltimore
 Zapponi, Paschal P., Wooster, Ohio
 Zenitz, Bernard L., Baltimore
 Zimmerman, S. Edwin, Glen Burnie

COLLEGE OF HOME ECONOMICS

SENIOR CLASS

Allen, Josephine R., Takoma Park
 Beall, Virginia L., Bethesda
 Beggs, Mary A., Baltimore
 Broughton, Elinor C., College Park
 Brown, Miriam, Centreville
 Burdette, N. Laura, Mt. Airy
 Burrier, Letitia S., Baltimore
 Caldwell, Katherine, Chevy Chase
 Cruikshank, Eleanor M. A., Baltimore
 Davis, Katherine I., Washington, D. C.
 Dulin, Jean M. A., Chevy Chase
 Fisher, Ida A., Takoma Park
 Good, Josephine M., Cumberland
 Gorsuch, M. Jeannette R., New Windsor
 Gould, Irene S., Takoma Park
 Hearn, Mildred L., Washington, D. C.

Hughes, Harriet E., Chevy Chase
 Hutton, Vera W., Ellicott City
 Jefferson, E. Marguerite, Salisbury
 Jenkins, Mary E., Suitland
 Jones, Audrey S., Washington, D. C.
 Kaylor, Helen L., Hagerstown
 Knight, Ruth E., Washington, D. C.
 Krauss, Mary G., Baltimore
 Kuhn, Lois M., Bethesda
 Lyons, Betty L., Sykesville
 McCormac, Elizabeth M., Washington, D. C.
 Quirk, Eleanor K., Washington, D. C.
 Renville, Ruth C., Baltimore
 Rosin, Anne, Silver Spring
 Weber, Ruth P., Cumberland
 Wellington, Esther R., Takoma Park

JUNIOR CLASS

Abbott, Kathryn F., District Heights
 Adkins, Kathryn, Salisbury
 Bain, Betty B., Washington, D. C.
 Balderston, Helen G., Colora
 Beals, Jane H., Washington, D. C.
 Bloom, Betty R., Cleveland Heights, O.
 Bosley, Audrey M., Baltimore
 Byrd, Evelyn W., College Park
 Cain, Harriet G., Felton, Del.
 DeAlba, Doris E., Glen Burnie
 Dunnington, Doris M., Chevy Chase
 George, Mary E., Mt. Rainier
 Gross, Esther B., Sharpsburg
 Hartig, Jean M., Washington, D. C.
 Hill, Millie L., Silver Spring
 Huff, Dorothy A., Chevy Chase

Iager, Evelyn L., Annapolis
 Kephart, Jane F., Takoma Park
 Law, Betty H., Washington, D. C.
 McGinnis, Verneena, Pomonkey
 McGinniss, Bell W., Kensington
 Miller, Alma V., Baltimore
 Neumann, Eileen C., Freeport, N. Y.
 Nusbaum, Ruth A. N., New Windsor
 Platt, Helen B., Washington, D. C.
 Soper, Ruby E., Washington, D. C.
 Spehnkouch, Lucia A., Baltimore
 Stevenson, Marguerite S., Takoma Park
 Tucker, Beatrice L., Abingdon
 Waldman, Fredricka I., Washington, D. C.
 Wilson, E. Jane, Washington, D. C.

SOPHOMORE CLASS

Abrahams, Henrietta T., E. Orange,
 N. J.
 Amadon, Virginia, Washington, D. C.
 Bohman, Katherine W., Hagerstown
 Bullock, Evelyn A., Baltimore
 Cochran, Olive A., Mercer, Pa.
 Conners, Marie A., Hyattsville
 Cornelius, Elida A., Chevy Chase

Crisp, Margaret S., Baltimore
 Curry, Tempe H., Bethesda
 Davis, Barbara J., Chevy Chase
 Dippel, Marie D., Baltimore
 Dotterer, Jacklyn S., Chevy Chase
 Farrington, Mary C., University Park
 Fennell, Beatrice M., Chevy Chase
 Fuchs, Sister Mary Ann, Maryknoll, N. Y.

Head, Julia E., College Heights
 Hickman, Martha V., Washington, D. C.
 Hussong, Dorothy L., Washington, D. C.
 Kraft, Jane L., Washington, D. C.
 Lang, Alice H., S. Norwalk, Conn.
 Leighty, Lena L., Washington, D. C.
 Logan, Mary A., Washington, D. C.
 Lyon, Elnora L., Baltimore
 MacDonald, Margaret E., Bethesda
 Mayhew, Elizabeth A., Hyattsville
 McComas, Lois C., Abingdon

Medbery, Dorothy A., Washington, D. C.
 Mullinix, Esther L., Woodbine
 Rice, Dorothy E., Washington, D. C.
 Richmond, Ruth, Bethesda
 Robinette, Bonnie M., Washington, D. C.
 Rodgers, Helen, Fort Howard
 Sachs, Evelyn B., Baltimore
 Sheild, Harriet E., Chevy Chase
 Simpson, Mary E., Trappe
 Skinner, Doris E., Port Republic
 Smaltz, Margaret H., Washington, D. C.

FRESHMAN CLASS

Allan, Lorraine E., Washington, D. C.
 Anderson, Muriel E., Washington, D. C.
 Bland, Mildred A., Suitland
 Bolden, Mary V., Oakland
 Bondareff, Helen E., Washington, D. C.
 Boss, Emma L., Washington, D. C.
 Briscoe, Jacqueline B., Washington, D. C.
 Brookens, Lillian E., Hyattsville
 Brown, Virginia L., Washington, D. C.
 Buckler, Mary F., Aquasco
 Burkins, Alice K., Castleton
 Burrill, Roxane A., Pleasantville, N. Y.
 Callander, Mary H., Washington, D. C.
 Christensen, Edith A., Hyattsville
 Christensen, Hilde M., Hyattsville
 Coe, Adelaide E., Washington, D. C.
 Cornnell, Norma L., Cottage City
 Cramblitt, Maxine T., Cumberland
 Davis, Dorothy M., Washington, D. C.
 Dicus, Frances A., Arlington, Va.
 Downey, Milbrey A., Williamsport
 Elliott, Margaret J., Kensington
 Enfield, Marjory L., Forest Hill
 Fleming, Elizabeth K., Baltimore
 Foster, Emma G., Parkton
 Gardiner, Dorothy G., Arlington, Va.
 Graeves, Helen F., Silver Spring
 Green, Dorothy M., Silver Spring
 Haskell, Mary J., Youngstown, N. Y.
 Hess, Marguerite R., Washington, D. C.
 Holbrook, Helen P., College Park
 Hubel, Shirley C., Washington, D. C.
 Jones, Bernice, Takoma Park
 Kellond, Ruth S., Baltimore
 Kohnstamm, Gene L., Moscow, Pa.
 Lambertson, Edwina, Washington, D. C.
 Lewis, Lydia I., Lantz

Lung, Mary E., Smithsburg
 Madigan, Helen M., Dunkirk, N. Y.
 McCurdy, Jean E., Kensington
 McDowell, Sarah M., Nottingham, Pa.
 Mike, Emma M., Flemington, N. J.
 Miller, Marjorie L., Elizabeth City, Va.
 Miser, Catherine E., Washington, D. C.
 Nellis, Dorothy A., Takoma Park
 Nichols, Helen E., Baltimore
 Owens, Elizabeth W., Linthicum Heights
 Phelps, Barbara M., Berwyn
 Pierce, Patricia M., Washington, D. C.
 Pinner, Doris J., Washington, D. C.
 Powers, Mary E., Hyattsville
 Pyle, Shirley D., College Park
 Ridgely, Nancy L., Glenwood
 Rosenbusch, Frances S., Washington, D. C.
 Schopmeyer, Grace E., Washington, D. C.
 Schutrumpf, Doris E., Washington, D. C.
 Seiter, Margaret E., Baltimore
 Simons, Barbara E., Washington, D. C.
 Snow, Claudia, Chevy Chase
 Stevenson, Bernice, Takoma Park
 Stick, Rebecca R., Hampstead
 Taylor, Mary C., Chevy Chase
 Tobias, Jane E., Washington, D. C.
 Tomberlin, Isabelle I., Hyattsville
 Trundle, Catharine M., Frederick
 Upson, Eileen C., Baltimore
 Vorkoeper, Marcia M., Washington, D. C.
 Warthen, Laura M., Kensington
 Watson, Evelyn N., Brandywine
 Webb, Mary E., Mt. Airy
 Wheeler, Frances A., Washington, D. C.
 Whitney, Margaret E., Takoma Park
 Zimmerman, Mary E., Ellicott City

PART TIME

Skinner, Barbara B., Silver Spring

UNCLASSIFIED

Aylesworth, Mary L., Buckhannon, W. Va.
 Cashin, Sister Mary Helen, Maryknoll,
 N. Y.
 Ford, Margaret E., Millington

Gaston, Virginia M., Buckhannon, W. Va.
 Grogan, Mariana, Washington, D. C.
 Harris, Elma E., Washington, D. C.

SCHOOL OF LAW

FOURTH YEAR EVENING CLASS

Athey, William B., Severna Park
Boyd, J. Frank, Barstow
Boyd, Omar K., Larchmont
Cooper, Norman E., Baltimore
Daneker, Clayton W., Baltimore
Dunn, Sylvan R., Baltimore
France, Ralph H., Baltimore
Gamse, Leroy L. F., Baltimore
Goldberg, Herman, Baltimore
Harding, Henry J., Baltimore
Higinbotham, Edward D., Bel Air
Hoffman, Grace, Baltimore

Hopkins, Samuel, Catonsville
Karasik, Abe S., Baltimore
Katzenstein, Alvin, Baltimore
Kelly, Caleb R., Jr., Baltimore
Motry, George O., Baltimore
Mueller, Henry A., Baltimore
Rothschild, Walter, Baltimore
Sattler, Eugene J., Baltimore
Silverman, Arnold, Baltimore
Storm, Edward D., Frederick
Thompson, Charles W., Baltimore

THIRD YEAR DAY CLASS

Archer, Robert H., Jr., Bel Air
Barbour, John K., Jr., Catonsville
Barclay, Frederick H., Baltimore
Barrett, John H., Jr., Baltimore
Bartlett, Thomas R., Baltimore
Beck, S. Scott, Jr., Chestertown
Benjamin, Paul E., Baltimore
Bernstein, Leonard S., Baltimore
Clark, John L., Ellicott City
Colgan, Charles W., Baltimore
Earnshaw, Benjamin A., Baltimore
Ellis, Joseph A., Hebron
Filler, Edwin W., Baltimore
Garfunkel, Sylvan A., Savannah, Ga.
Gillis, Lee S., St. Michaels
Goldstein, Louis L., Prince Frederick
Handy, Francis D., Baltimore
Harkness, David A., Mutual
Hecht, Isaac, Baltimore
Jacob, John E., Salisbury

Kirsner, Milton F., Baltimore
Long, John W., Fruitland
Love, Richard H., Hyattsville
Magers, John E., Jr., Ruxton
Malkus, Frederick C., Jr., Cambridge
Meyer, Bernard S., Baltimore
Miller, A. Milton, Chester, Pa.
Murray, Donald G., Baltimore
Rascovar, Roy L., Baltimore
Riehl, Louis M., Lansdowne
Robb, John M., Cumberland
Rubin, Jesse J., Baltimore
Scherr, Max, Baltimore
Starr, John E., Hyattsville
Toula, Jaroslav J., Baltimore
Tull, Miles T., Marion
Whalin, Cornelius, Hyattsville
Williams, Thomas B., Jr., Baltimore
Williamson, George L., Cumberland

THIRD YEAR EVENING CLASS

Andrew, Thomas G., Baltimore
Banks, Talbot W., Baltimore
Benson, Alvin L., Baltimore
Bowles, Martin C., Baltimore
Buppert, Doran H., Baltimore
Cohen, Irvin H., Baltimore
Dyer, Harry E., Jr., Havre de Grace
Gentry, Everyn A., Baltimore
Hopkins, John H. IV, Baltimore
Jackson, Charles E., Jr., Baltimore
Jobson, George J., Catonsville
Joyce, Jerome J., Baltimore
Kirby, Raymond A., Baltimore
Kolker, Fabian H., Baltimore

Lassotovitch, Vladimir S., Havre de Grace
Levinson, Irvin A., Baltimore
Lubinski, Edmund W., Baltimore
Macgill, James, Simpsonville
McKenrick, Stratford E., Baltimore
Patterson, James T., New Haven, Conn.
Plant, Albin J., Baltimore
Rasin, Alexander P., Chestertown
Redmond, James A., Jr., Baltimore
Saks, Jay B., Baltimore
Sybert, Edward J., Elkridge
Tiralla, Henry M., Jr., Baltimore
Topper, Bernard C., Baltimore
Wilson, Frank K., Jr., Baltimore

SECOND YEAR DAY CLASS

Beck, James D., Baltimore
Blackhurst, James W., Baltimore
Clark, Leslie J., Lonaconing
Clarke, George L., Pikesville
Edmondson, Charles E., Cambridge
Frailey, Carson G., Frederick
Getty, Gorman E., Lonaconing
Goldberg, Harry, Baltimore
Jones, Lewis R., Oakland
Kalis, Samuel D., Baltimore
Kelly, Charles B., Jr., Baltimore
Long, Eloise G., Salisbury
Lovell, Marker J., New Windsor
Monroe, Edward G., Baltimore
Oken, Fred, Baltimore

Prettyman, Charles W., Rockville
Ready, Roland C., Mt. Lake Park
Sallow, William H., Baltimore
Shaivitz, Phyllis D., Baltimore
Silberg, Melvin S., Baltimore
Smith, John H., Cumberland
Sullivan, John C., Jr., Baltimore
Taylor, Alfred F., Darlington
Tuerk, Carl E., Baltimore
Vogel, Albert T., Baltimore
Wasserman, Jerome, Baltimore
Waterman, Caroline H., Jacksonville, Fla.
Welsh, Barnard T., Rockville
White, George W., Jr., Baltimore
Williams, Lawrence E., Baltimore

SECOND YEAR EVENING CLASS

Bank, Howard M., Baltimore
Bussey, Eugene, Baltimore
Care, Harold C., Baltimore
Chancellor, Arthur B., Jr., Baltimore
Ciesielski, Stanley, Baltimore
Cox, Charles H., Baltimore
Douglass, Calvin A., Baltimore
Glass, Louis J., Baltimore
Green, Thomas O., Jr., Towson
Hedrick, Thomas H., Baltimore
Herrmann, John O., Baltimore
Howell, George E., Baltimore
Howell, Joseph F., Baltimore
Johnson, Clarence L., Annapolis

McCray, Jonathan F., Towson
Ottenheimer, Edwin, Baltimore
Paymer, Leonard, Baltimore
Rechner, Charles F., Jr., Baltimore
Robertson, Emma S., Baltimore
Rosinoff, Samuel, Washington, D. C.
Scanland, Robert B., Baltimore
Scrivener, David S., Washington, D. C.
Thompson, Charles A., Hurlock
Watchorn, Arthur W., Milbury, Mass.
Welsh, Paul E., Baltimore
Yeager, Paul J., Baltimore
Zimmerman, Richard E., Frederick

FIRST YEAR DAY CLASS

Armstrong, Alexander, Jr., Towson
Bailey, Warren L., Baltimore
Benjamin, Louis, Baltimore
Bloodgood, Joseph H., Baltimore
Brennan, John J., Baltimore
Brockman, Ethel L., Riverdale
Brown, Augustus F., Havre de Grace
Caplan, David L., Baltimore
Connor, John S., Catonsville
Digges, Edward S., LaPlata
Everhart, Nannie M., Frederick
Fey, John T., Cumberland
Finan, Thomas B., Jr., Cumberland
Fowler, Charles R., Washington, D. C.
Heringman, Leo A., Baltimore
Holmes, Jesse W., Jr., Cumberland
Jones, Joseph F., Baltimore
Kaplan, Solomon, Baltimore

Keppler, Kurt, Baltimore
Lankford, Richard E., Baltimore
Maguire, John N., Wilmington, Del.
Maier, George, Jr., Bridgeton, N. J.
McIntire, John N., Oakland
Murphy, John L. V., Jr., Baltimore
Nattans, Ralph A., Baltimore
Olds, Mark N., Honolulu, Hawaii
Ostroff, Julius J., Baltimore
Polack, Samuel J., Hagerstown
Ricciuti, Hugo A., Baltimore
Shiling, Reuben, Baltimore
Taylor, Beverly C., Jr., Baltimore
Tillman, David F., Riderwood
Treacy, James J., Oakland
Umbarger, Paul, Bel Air
Virts, Charles C., Jefferson
White, Robert B., Salisbury

FIRST YEAR EVENING CLASS

Alter, Irving D., Baltimore
Atwater, Charles C., Chestertown
Barnard, John D., Baltimore
Bennett, Robert S., Baltimore
Bichy, Charles E., Jr., Baltimore
Carlin, Elizabeth M., Baltimore
Coburn, Paul H., Easton
Coonan, Margaret E., Baltimore
Cory, Ernest N., Jr., College Park
Daum, John A., Baltimore
Dolan, Frank J., Baltimore
Dougherty, J. Minton, Baltimore
Fahy, Ambrose J., Baltimore
Franklin, John M., Oakland
Garrott, William N., Knoxville
Glick, Louis, Baltimore
Glickman, Max, Annapolis
Gulbransen, William, Baltimore
Hebb, John Stephen, III, Baltimore
Hendrickson, Charles J., Halethorpe
Huff, James K., Jr., Forest, Miss.
Kelly, Charles E., Overlea
Knight, Ellsworth C., Jr., Baltimore
Lang, Samuel J., Baltimore
Mahoney, Elmer J., Baltimore
Martin, Darwin B., Mountain Lake Park
Mason, Everett P., Jr., Baltimore
McClure, Kenneth F., Baltimore
McColgan, James E., Catonsville
McComas, Charles H., Bel Air
McIntyre, Katherine A., Baltimore
Meidling, George A., Baltimore
Mohlhenrich, William W., Catonsville
O'Donnell, William J., Baltimore
Paar, Francis W. H., Baltimore
Pearson, Craven P., Jr., Elkridge
Purrington, Sara G., Baltimore
Rasin, George B., Jr., Worton
Rhodes, Fred B., Jr., Baltimore
Russell, Archibald L., Baltimore
Shapiro, Donald B., Baltimore
Skeen, John H., Jr., Baltimore
Smith, Marvin H., Federalsburg
Smith, Reginald C., Baltimore
Smith, William A., Baltimore
Sody, Herman S., Baltimore
Vincenti, Bernard C., Baltimore
Williams, George H., Baltimore
Wise, Paul S., Dover, Del.
Wright, William A. S., Denton

UNCLASSIFIED EVENING

Evans, Matthew S., Severna Park
Russell, Turner R., Baltimore
Smith, Benton P., Baltimore
Wisotzki, Clark T., Baltimore

UNCLASSIFIED DAY

Ayre, Josephine, Washington, D. C.
Hartman, Carl S., Pikesville

SCHOOL OF MEDICINE

GRADUATE STUDENTS

Algire, Glenn H., Baltimore
Beck, Frances F., Baltimore
Forman, Sylvan E., Baltimore
Hiatt, Edwin P., Wilmington, Ohio
Monke, J. Victor, Litchfield, Ill.

SENIOR CLASS

Abarbanel, Milton G., Jersey City, N. J.
Abramson, Daniel J., Baltimore
Applefeld, Willard, Baltimore
Baum, Max, Baltimore
Bonner, Robert A., Jr., Waterbury, Conn.
Borden, Melvin M., Baltimore
Bowers, John Z., Catonsville
Bradley, Stanley E., Baltimore
Brooks, Wilbur S., New York, N. Y.
Brown, Manuel, Baltimore
Bunting, John J., Clifton, N. J.
Callahan, Timothy A., Bel Air
Chance, Burton, Jr., Radnor, Pa.
Cohen, Hilliard, Baltimore
Colleran, Harold L., Jessup, Pa.
Coolahan, John F., Baltimore
Cooper, Donald D., Towson
Costas, Jaime L., Ponce, Puerto Rico
Crawford, Robert C., Baltimore
Dausch, Michael J., Baltimore
Dodd, William A., Baltimore
Dolfman, Victor, Philadelphia, Pa.

Eichert, Arnold H., Woodlawn
Feder, Aaron, Jackson Heights, N. Y.
Fox, Lester I., Haverhill, Mass.
Fox, Samuel L., Baltimore
Gáreis, Louis C., Baltimore
George, Joseph M., Jr., Sudlersville
Gertman, Samuel, Baltimore
Gibel, Harry, Brooklyn, N. Y.
Ginsberg, Milton, Baltimore
Glassman, Edward L., Baltimore
Goodman, Louis E., Jr., Baltimore
Goodman, Sylvan C., Baltimore
Gottdiener, Florence H., Baltimore
Govons, Sidney R., Baltimore
Graff, Frederick L., Parkersburg, W. Va.
Guyton, William L., Baltimore
Haase, John H., Baltimore
Harris, Sidney, Roselle, N. J.
Hayleck, Mary L., Baltimore
Horkey, John R., Bel Air
Januszski, Francis J., Baltimore
Katz, Milton A., Westminster
Kelmenson, Harry, Baltimore
Knox, John J., Gettysburg, Pa.
Kotleroff, Jerome, Brooklyn, N. Y.
Kump, Albert B., Bridgeton, N. J.
Kurtz, Gerald I., Paterson, N. J.
Lauve, Céleste C., Baltimore
Layden, Milton, Baltimore
Lenker, Luther A., Harrisburg, Pa.
Lipsitz, Morton H., Baltimore
Lopez, Hilton L., Mayaguez, Puerto Rico
Lumpkin, William R., Baltimore
Michaelson, Ernest, Bladensburg
Milholland, Arthur V., Baltimore
Miller, Clarence L., Hannibal, Mo.
Miller, Royston, Baldwin
Miniszek, James H., Baltimore
Molofsky, Leonard C., Baltimore
Novey, Samuel, Baltimore
Post, Laurence C., Buckhannon, W. Va.
Powell, Geraldine K., Baltimore
Rizzolo, John, Newark, N. J.
Roman, Paul, Baltimore
Rossello, Juan Antonio, Ponce, Puerto Rico
Rothkopf, Henry, Ellenville, N. Y.
Sabatino, Bernard J., Parkville
Sarajian, Aram M., Ridgefield Park, N. J.
Schaefer, John F., Baltimore
Schammel, Adam J., Overlea
Scherlis, Sidney, Baltimore
Schlesinger, Robert A., Flushing, N. Y.
Schmulovitz, Maurice J., Baltimore
Scott, John M., Baltimore
Sevcik, Charles V., Baltimore
Sheppard, Robert C., Baltimore
Siegel, Edward, Poughkeepsie, N. Y.
Silberman, Donald J., Birmingham, Ala.
Smith, John P., Baltimore
Sprei, Emanuel, New York, N. Y.
Stein, Aaron, Baltimore
Steinberg, Morris W., Baltimore
Swiss, Adam G., Baltimore
Thomas, Bernard O., Frederick
Thompson, James U., Cambridge
Thompson, Winfield L., Rehobeth
Vollmer, Frederick J., Baltimore
Wagner, John A., Baltimore
Warres, Herbert L., New York, N. Y.
Way, John E., Beaufort, N. C.
Welfeld, Alvan A., Baltimore
White, Harry F., Jr., Baltimore
White, S. Cottrell, Baltimore
Winer, Albert S., Baltimore
Woodward, Theodore E., Westminster
Worthington, Richard W., Baltimore
Wulwick, Michael, Brooklyn, N. Y.
Yaffe, Kennard L., Baltimore

JUNIOR CLASS

Baylus, Herman, Baltimore
Beck, Harry M., Baltimore
Berman, Edgar F., Baltimore
Bernstein, Aaron, Baltimore
Bernstein, Albion O., New York, N. Y.
Bess, Elizabeth G., Keyser, W. Va.
Bloom, Max R., Pittsburgh, Pa.
Brezinski, Edward J., Perth Amboy, N. J.
Briele, Henry A., Baltimore
Brodsky, Bernard, Brooklyn, N. Y.
Cannon, Lawrence S., Salt Lake City, Utah
Cianos, James N., Baltimore
Coffman, Robert T., Keyser, W. Va.
Cohen, Frank S., Baltimore
Corbitt, Richard W., Parkersburg, W. Va.
Cunningham, Raymond M., Baltimore
Filtzer, David L., Baltimore
Freed, Arnold U., Baltimore
Fusting, William H., Baltimore
Gaver, Leo J., Myersville
Goldberg, Sylvan D., Baltimore
Gray, Thomas B., Cherokee, N. C.
Grier, George S., III, Milford, Del.
Grott, Harold A., Baltimore
Haimowitz, Samuel I., Philadelphia, Pa.
Harris, Charles I., Jr., Rome, Ga.
Harrison, Charles S., Clarksburg, W. Va.
Hartman, Oscar, Baltimore
Hartz, Alvin S., Baltimore
Heimoff, Leonard L., New York, N. Y.
Hooker, Charles B., Takoma Park
Hutchins, Thomas M., Bowens
Isaacson, Benjamin, Baltimore

Jamison, William P., Clarksburg, W. Va.
 Jandorf, R. Donald, Baltimore
 Jannarone, Lewis H., Belleville, N. J.
 Jones, Charles W., Baltimore
 Jorgensen, Louis C., Salt Lake City, Utah
 Kairys, David, Baltimore
 Kammer, William H., Jr., Baltimore
 Kappelman, Melvin D., Baltimore
 Keister, Philip W., Baltimore
 Kerr, James P., Boyd
 Kiely, James A., Cortland, N. Y.
 Kinnamon, Howard F., Jr., Easton
 Kleiman, Bernard S., Baltimore
 Kurland, Albert A., Baltimore
 Kyle, Henry H., Crownsville
 Lapinsky, Herbert, Brooklyn, N. Y.
 Lavenstein, Arnold F., Baltimore
 Layman, William T., Hagerstown
 Leitch, William H., Friendship
 Magness, Stephen L., Catonsville
 Magruder, John R., Baltimore
 Marks, Irving L., Baltimore
 McClafferty, William J., Jr., West Warwick, R. I.
 McLaughlin, Francis J., Baltimore
 Meyer, Alvin F., Brooklyn, N. Y.
 Miller, Irvin J., New York, N. Y.
 Miller, William S., Baltimore
 Moran, John A., Conway, Mass.
 Moricle, Charles H., Reidsville, N. C.
 Nutall, James B., Baltimore

SOPHOMORE CLASS

Andrews, S. Ralph, Jr., Elkton
 Baier, John C., Mt. Hays
 Bailey, Walter L., York, Pa.
 Barker, Daniel C., Niantic, Conn.
 Beacham, Edmund G., Baltimore
 Biehl, Harold P., Frederick
 Borden, Jesse N., Baltimore
 Brinsfield, Irving C., Vienna
 Caplan, Lester H., Baltimore
 Clifford, Robert H., Jr., Mountain Lakes, N. J.
 Cole, John T., Warren, Ohio
 Correll, Paul H., Catonsville
 Daue, Edwin O., Jr., Silver Spring
 DeLuca, Joseph, Bristol, R. I.
 Don Diego, Leonard V., Brooklyn, N. Y.
 Duffy, William C., Baltimore
 Dwyer, James R., Renovo, Pa.
 Freeman, James A., West Union, W. Va.
 Gassaway, William F., Ellicott City
 Glick, Irving V., New York, N. Y.
 Graham, Walter R., Charlotte, N. C.
 Guzmán-López, Luis R., San Juan, Puerto Rico
 Hecht, Morton, Jr., Baltimore

Palmer, David W., Wheeling, W. Va.
 Parks, Seigle W., Fairmont, W. Va.
 Pijanowski, Walter J., Schenectady, N. Y.
 Pillar, Samuel, Baltimore
 Polek, Melvin F., Baltimore
 Reimann, Dexter L., Baltimore
 Rochberg, Samuel, Passaic, N. J.
 Ruzicka, Edwin R., Baltimore
 Sadove, Max S., Baltimore
 Schenthal, Joseph E., Baltimore
 Scher, Isadore, Baltimore
 Sexton, Thomas S., Sistersville, W. Va.
 Sherman, Claude P., Fuquay Springs, N. C.
 Siegel, Maurice, Brooklyn, N. Y.
 Smoak, Philip L., Tampa, Fla.
 Solarz, Sylvan D., Baltimore
 Spiegel, Herbert, McKeesport, Pa.
 Steger, William J., Wheeling, W. Va.
 Stevens, Leland B., Millington
 Tartikoff, George, Brooklyn, N. Y.
 Thomas, Ramsay B., Towson
 Thomas, Wilbur C., Lansdowne
 Urlock, John P., Baltimore
 Wallenstein, Leonard, Baltimore
 Wanner, Jesse R., Jr., Salisbury
 Whitworth, Fuller B., Westernport
 Wilder, Milton J., Ferndale
 Wilner, Sol, New York, N. Y.
 Worsley, Thomas L., Jr., Rocky Mount, N. C.
 Zalis, Daniel L., Baltimore

Henning, Emil H., Jr., Baltimore
 Heyman, Albert, Baltimore
 Hooton, Elizabeth L., Hyattsville
 Hope, Daniel, Jr., Ellicott City
 Igartua-Cardona, Susana, Aguadilla, Puerto Rico
 Inloes, Benjamin H., Jr., Baltimore
 Johnson, Robert D., Annapolis
 Karns, James R., Baltimore
 Kirchick, Julian G., Brooklyn, N. Y.
 Kohn, Schuyler G., Baltimore
 Krieg, Edward F., Baltimore
 Lartz, Robert E., Sharon, Pa.
 Ling, William S. M., Fatshan, China
 Livingood, William C., Waynesboro, Pa.
 Loker, Frank F., Leonardtown
 Maccubbin, Harry P., Baltimore
 Markline, Simeon V., White Hall
 Martin, Clarence W., Baltimore
 Maryanov, Alfred R., Brooklyn, N. Y.
 Mathers, Daniel H., Annapolis
 McClung, James E., Richwood, W. Va.
 McClung, William D., Richwood, W. Va.
 McDaniel, George C., Baltimore
 McKinnon, William J., Maxton, N. C.

Meade, Forest C., Hyattsville
 Miceli, Joseph, Baltimore
 Molz, Edward L., Baltimore
 Murphy, Fred E., Jr., Jesup, Ga.
 Muse, William T., Baltimore
 Myers, George R., Hurlock
 O'Hara, James F., Canton, Ohio
 Picó, Guillermo, Hato Rey, Puerto Rico
 Pierpont, Ross Z., Woodlawn
 Pigford, Robert T., Wilmington, N. C.
 Platt, William, Baltimore
 Pollock, Arthur E., Gallitzin, Pa.
 Posner, Leonard, Brooklyn, N. Y.
 Pound, John C., Baltimore
 Rath, Maurice M., Newark, N. J.
 Rhode, Charles M., Baltimore
 Richter, Conrad L., Baltimore
 Robinson, Raymond V., Baltimore
 Roop, Donald J., New Market
 Rothschild, Carl E., Chefoo, China
 Russell, Thomas E., Jr., Frederick

FRESHMAN CLASS

Alberti, Aurora F., Brooklyn, N. Y.
 Alexander, Fred, Ridgewood, N. J.
 Barnett, Charles P., Baltimore
 Baxley, Joshua W., Ellicott City
 Bowen, Joseph J., Waterbury, Conn.
 Brooks, J. Culpepper, Jr., Chattanooga, Tenn.
 Bundick, William R., Baltimore
 Checket, Pierson M., Baltimore
 Chiqués, Carlos M., Caguas, Puerto Rico
 Cooper, LeRoy G., Glen Lyon, Pa.
 Crecca, Joseph V., Newark, N. J.
 Croce, Gene A., Providence, R. I.
 Cruikshank, Dwight P., Jr., Lumberport, W. Va.
 Culler, John M., Frederick
 de Vincentis, Michael L., Baltimore
 Diez-Gutierrez, Emilio, Orocovis, Puerto Rico
 DiPaula, Anthony F., Baltimore
 Esnard, John E., Los Angeles, Calif.
 Evola, Camille M., Flushing, N. Y.
 Figge, Frank H. J., Baltimore
 Frey, Edward L., Jr., Catonsville
 García-Blanco, José, Ponce, Puerto Rico
 Gelber, Julius, New York, N. Y.
 Goodman, William, Baltimore
 Graziano, Theodore J., Baltimore
 Hedrick, Thomas A., Beckley, W. Va.
 Hershner, Newton W., Jr., Mechanicsburg, Pa.
 Hollander, Asher, Baltimore
 Hunter, James S., Jr., Frostburg
 Jaffe, Vita R., Brooklyn, N. Y.

Russillo, Philip J., Annapolis
 Schlesinger, George G., New York, N. Y.
 Sloan, Joseph W., Bayonne, N. J.
 Smith, James B., Baltimore
 Squillante, Orlando J., Warren, R. I.
 Stayton, Howard N., Jr., Wilmington, Del.
 Supik, William J., Baltimore
 Tankin, Louis H., Baltimore
 Thompson, Alexander F., Troy, N. C.
 Thompson, Raymond K., Riverdale
 Tompakov, Samuel, Baltimore
 Townshend, Wilfred H., Jr., Baltimore
 Trevor, William, Baltimore
 Triplett, William C., St. Mary's, W. Va.
 Waite, Merton T., Odenton
 Wilkins, Jesse L., Pocomoke City
 Williams, Herman J., Reading, Pa.
 Williams, Richard T., Crownsville
 Wilson, Harry T., Jr., Baltimore
 Wolff, William I., New York, N. Y.
 Zinkin, Sol, Lakewood, N. J.

Jordan, Gordon T., Hurricane, W. Va.
 Kemp, Norval F., Relay
 Kiefer, Robert A., Catonsville
 Krulevitz, Keaciel K., Baltimore
 Lach, Frank E., Perth Amboy, N. J.
 Leslie, Franklin E., Towson
 Levinson, Lorman L., Baltimore
 Licha, José S., Santurce, Puerto Rico
 Lowe, William C., Stevensville
 Lusby, Thomas F., Prince Frederick
 Mandel, Jacob B., Jersey City, N. J.
 Martinez, Josefina, Ponce, Puerto Rico
 Matthews, Henry S., Rose Hill, N. C.
 McBrayer, John A., Jr., Lattimore, N. C.
 Mitchell, William A., Baltimore
 Molinari, José G., Santurce, Puerto Rico
 Montgomery, Mark R., Fairchance, Pa.
 Morris, Felix R., Bridgeport, Conn.
 Morrison, William H., Baltimore
 Nolan, James J., Catonsville
 Novoa-Caballero, Miguel, Rio Piedras, Puerto Rico
 Ortiz, Idalia O., Santurce, Puerto Rico
 Palmer, Margaret V., Easton
 Pasamanick, Benjamin, Brooklyn, N. Y.
 Percy, Thompson, Parkersburg, W. Va.
 Perman, Joshua M., Baltimore
 Pruitt, Charles E., Frederick
 Renna, Francis S., Montclair, N. J.
 Revell, Walter J., Louisville, Ga.
 Richardson, Charles, Jr., Bel Air
 Richmond, Marion B., Chevy Chase
 Richter, Christian F., Jr., Overlea
 Rosenberg, Jonas S., New York, N. Y.

Rosberg, Clyde A., Baltimore
 Sasscer, Robert B., Upper Marlboro
 Sawyer, William H., Raleigh, N. C.
 Schwartz, Stanley E., Brooklyn, N. Y.
 Seigman, Edwin L., Jr., Baltimore
 Shannon, Edward P., Jr., Brooklyn, N. Y.
 Sheehan, Joseph C., Baltimore
 Sherrill, Elizabeth B., Sparks
 Spencer, Tracy N., Jr., Concord, N. C.
 Spinnler, Henry R., Butler, N. J.
 Stevens, John S., Bridgeport, Conn.
 Strayer, Webster M., Baltimore
 Trevaskis, Richard W., Jr., Cumberland
 Traynor, Francis W., Cumberland

Trumper, Eleanor J., Montgomery, Ala.
 Ulrich, George J., Baltimore
 Vest, William J., Iaeger, W. Va.
 Virusky, Edmund J., Freeland, Pa.
 Walker, James H., Charleston, W. Va.
 Wall, Lester A., Jr., Baltimore
 Ward, Charles M., Beckley, W. Va.
 Watkins, Dayton O., Hyattsville
 Wells, John B., Jr., Baltimore
 Wilder, Thomas C., Rochester, Minn.
 Wilson, Edwin F., New York, N. Y.
 Yanagisawa, Kazuo, Berkeley, Calif.
 Young, John D., Jr., Westminster
 Zierler, Kenneth L., Baltimore

SPECIAL STUDENT

Wassell, Anna R., Baltimore

MEDICAL ART STUDENTS

Bialek, Ruth, Baltimore

Krulevitz, Jeanette G., Baltimore

SCHOOL OF NURSING

GRADUATE STUDENTS

Carpenter, Catherine E., Waverly, Va.
 Hersh, Naomi G., Manchester
 Kautz, Marjorie L., Cumberland
 Pennington, Rose, Bel Air
 Pilgrim, Beatrice L., Chambersburg, Pa.

Quarterman, Lena W., Nicholls, Ga.
 Rayme, Carolyn R., Fullerton
 Rudisill, Mary L., Iron Station, N. C.
 Sappington, Frances V., Hagerstown
 Sherrill, Evelyn F., Sparks

SENIOR CLASS

Bates, Victoria W., Greenville, S. C.
 Baughman, Anna M., Somerset, Pa.
 Bowling, Ada G., Elm City, N. C.
 Burgage, Katharine E., Salisbury
 Coleman, Dorothy E., Livermore, Penna.
 Coleman, Myrtle A., Baltimore
 Connelly, Nancy V., Rising Sun
 Dees, Mary A., Goldsboro, N. C.
 Dixon, Dorothy L., Wilmington, N. C.
 Eckenrode, Mary R., Manchester
 Gambill, Treva L., Bel Air
 Garrison, Alice V., Washington, D. C.
 Graham, Carola B., Hampstead
 Hanna, Lois C., Mount Solon, Va.
 Hough, Gwendolyn, Parkton
 Hedrick, Anna Lee, Beckley, W. Va.
 Kalar, Nelda, Baltimore

Kalbaugh, Mary E., Luke
 Kroh, Louise E., Kingsville
 Llewellyn, Anne P., Cockeysville
 Mays, Sara J., Cockeysville
 McNabb, Lena, Greenville, Tenn.
 Monath, Vivian V., Hagerstown
 Selkamaa, Ingrid E., Baltimore
 Stephens, Katherine E., Hertford, N. C.
 Stephenson, Doris V., Baltimore
 Streett, Flora M., Street
 Terry, Virginia A., Washington, D. C.
 Tharpe, Iva L., Bel Air
 Walker, Alice J., Ellicott City
 Wert, Janice M., Sparrows Point
 Wilson, Kathryn, Randallstown
 Winfield, Irma H., Rohrsersville

INTERMEDIATE CLASS

Beall, Margaret D., Edgewater
 Bennington, Margaret E., Delta, Pa.
 Calladine, Virginia J., Niagara Falls, N. Y.
 Clark, Mary S., Screven, Ga.
 Craven, Nancy L., Asheboro, N. C.

Culler, Margaret O., Frederick
 Danforth, Dorothy M., Baltimore
 Dorsett, Frances E., Indian Head
 Doyle, Thelma C., Lonaconing
 Foster, Lucille E., Beckley, W. Va.

Foster, Marguerite W., Sparks
 Grammer, Julia J., Waverly, Va.
 Hollister, Louise M., Denton
 Lee, Margaret M., Glen Burnie
 Magruder, Catharine B., Baltimore
 Marshall, Lolah H., Baltimore
 Richardson, Virginia B., Waverly, Va.

Roach, Mary J., Hagerstown
 Shaff, Dorothy E., Jefferson
 Travers, Marian E., Nanticoke
 Vandervoort, Susan H., Columbus, Ohio
 Wilson, Margaret F., Baltimore
 Yeager, Susan M., Thomas, W. Va.

JUNIOR CLASS

Albright, Pearl E., Granite
 Conley, Virginia C., Baltimore
 Horn, Beatrice C., Point of Rocks
 McIntosh, Annie M., Cheraw, S. C.
 Nester, Edna C., Auburn, N. J.
 Provance, Dorothy J., Greensboro, Pa.
 Remke, Pauline I., Elm Grove, W. Va.

Rothhaupt, Ruth A., Gettysburg, Pa.
 Sherwood, Alida, Indianapolis, Ind.
 Sinnott, Mary L., Baltimore
 Starford, Marianna K., Grafton, W. Va.
 Thompson, Ruby E., Hurlock
 Vivod, Marion H., Luke
 Woerner, Ruth C., Baltimore

PROBATION CLASS

Adkins, Elizabeth M., Pittsville
 Akers, Evelyn G., Baltimore
 Baer, Martha L., Delta, Pa.
 Barnes, Edith L., Baltimore
 Brenisholtz, Esther R., Lewistown, Pa.
 Broadnax, Clarie P., Rock Hill, S. C.
 Bussard, Mary M., Jefferson
 Caldwell, Ruth D., Cordova
 Cook, Kathryn H., Frostburg
 Duffee, Ava V., Norfolk, Va.
 Evans, Flora E., Linthicum Heights
 Gardner, Nellie F., Lynchburg, Va.
 Gillespie, Sallie A., Parksley, Va.
 Granofsky, Elizabeth C., Baltimore
 Joneckis, Mary, Patapsco
 Killmon, Mabel V., Parksley, Va.
 Liles, Judy, Clayton, N. C.
 Linthicum, Laura E., Linthicum Heights
 Mathais, Phyllis Y., Littlestown, Pa.

McCullough, Martha E., Glen Rock, Pa.
 Parks, Bessie M., Parksley, Va.
 Pember, Laura G., New Bern, N. C.
 Porterfield, Virginia L., Bluefield, W. Va.
 Scharf, Nellie M., Glen Burnie
 Shaver, Etta M., Westminster
 Simmons, Edna V., Bridgewater, Va.
 Simmons, Iva L., Bridgewater, Va.
 Skaggs, Mary A., Hinton, W. Va.
 Skinner, Edna M., Shepherdstown, W. Va.
 Smithson, Ethel B., Easton
 Storey, Ethel M., Chestertown
 Teeple, Laura E., Jacksonville, Fla.
 Tracey, Sara A., Parkton
 Ward, Dorcas V., Baltimore
 Watson, Ada M., Dilliner, Pa.
 Wilkins, Amy L., Rock Hall
 Wilkins, Laura A., Pocomoke City

SCHOOL OF PHARMACY

GRADUATE STUDENTS

Allen, Benjamin F., Baltimore
 Alperstein, Reuben R., Baltimore
 Bellman, Frank A., Baltimore
 Cross, John M., Little Falls, N. J.
 DeDominicis, Amelia C., Baltimore
 Dittrich, Theodore T., Baltimore
 Dunker, Melvin F. W., Baltimore
 Enten, Harry, Baltimore
 Foster, Carroll P., Baltimore
 Gilbert, Loamie M., Jr., Benson, N. C.
 Glickman, Shirley M., Baltimore
 Hanna, William M., Baltimore

Levin, Nathan, Baltimore
 McGinity, F. Rowland, Baltimore
 McNamara, Bernard P., Baltimore
 Moskey, Thomas A., Jr., Arlington, Va.
 Purdum, William A., Baltimore
 Raudonis, John A., Hudson, N. H.
 Sumerford, Wooten T., Athens, Ga.
 Thompson, Paul H., Waubay, S. Dak.
 Tompakov, Sylvan, Baltimore
 Youch, Charles A., Baltimore
 Zenitz, Bernard L., Baltimore

SENIOR CLASS

Aaronson, Alfred I., Baltimore
 Beam, Merlin A., Garrison
 Bixler, Richard S., New Windsor
 Cohen, Bernard I., Baltimore
 Colvin, Ralph, Baltimore
 Combs, Joseph L., Jr., Baltimore
 Edlavitch, Sam, Baltimore
 Floyd, Melvin L., Catonsville
 Fribush, Sidney, Baltimore
 Gakenheimer, Walter C., Catonsville
 Galley, Roland P., Baltimore
 Gendason, Harry B., Baltimore
 Ginaitis, Alphonsus S., Baltimore
 Gregorek, Frank J., Baltimore
 Hager, George P., Baltimore
 Hamlin, Kenneth E., Jr., Baltimore
 Heyman, Bernice, Baltimore
 Hopkins, Carville B., Annapolis
 Jarowski, Charles, Baltimore
 Kaminkow, Joseph, Baltimore
 Katz, Morton, Baltimore
 Kelley, Gordon W., Baltimore
 Kobin, Ben, Baltimore
 Levin, Benjamin S., Baltimore

Levin, Jacob B., Baltimore
 Levin, Norman J., Baltimore
 Levy, Bernard, Baltimore
 Loftus, Howard E., Dundalk
 Matelis, Olga P., Baltimore
 Morganstern, William A., Woodlawn
 Muehlhause, Ruth V., Baltimore
 Nurkin, Bernice V., Baltimore
 Oleszczuk, Melvin J., Baltimore
 Pearlman, Albert, Baltimore
 Pressman, Isadore, Baltimore
 Pucklis, Frank S., Baltimore
 Rhode, John G., Baltimore
 Richman, Jacob L., Baltimore
 Stoler, Myer, Baltimore
 Sussman, Bernard, Baltimore
 Thompson, Robert E., Waubay, S. D.
 Wachsman, Irvin L., Baltimore
 Waxman, Milton M., Baltimore
 Webster, Thomas C., Baltimore
 Wich, Joseph C., Baltimore
 Zerofsky, Harold, Baltimore
 Zetlin, Henry P., Baltimore

JUNIOR CLASS

Alessi, Alfred H., Baltimore
 Baker, Daniel S., Baltimore
 Binstock, Albert, Baltimore
 Dobropolski, Anthony J., Baltimore
 Dorsch, Joseph U., Baltimore
 Feldman, Jack, Baltimore
 Folus, Irving H., Baltimore
 Francik, Joseph, Baltimore
 Freedman, Leonard, Baltimore
 Glaser, Louis L., Baltimore
 Golditch, Henry M., Baltimore
 Gruz, Nathan I., Baltimore
 Hackett, Angela R., Baltimore
 Heneson, Irving J., Baltimore
 Ichniowski, William M., Baltimore
 Jacobs, Eugene, Baltimore
 Jones, Cyrus F., Baltimore
 Kamanitz, Irvin L., Baltimore
 Lieberman, Lawrence L., Front Royal, Va.
 Mask, Jerome, Baltimore
 Massing, David, Baltimore

Mendelsohn, Daniel, Arbutus
 Miller, Manuel, Baltimore
 Morgenroth, Victor H., Jr., Baltimore
 Mutchnik, Melvin, Baltimore
 Okrasinski, Joseph L., Baltimore
 Parker, Katherine J., Baltimore
 Passen, Lillian, Baltimore
 Rosenthal, Alvin, Baltimore
 Rostacher, Harry L., New York, N. Y.
 Sabatino, Louis T., Parkville
 Sachs, Albert, Baltimore
 Sama, Mario A., Baltimore
 Sapperstein, Louis, Baltimore
 Schneyer, Herbert, Philadelphia, Pa.
 Shalowitz, Marion, Baltimore
 Silverstein, Bernard, Baltimore
 Snyder, Nathan M., Baltimore
 Stone, Harry, Baltimore
 Wiener, Maurice, Baltimore
 Young, George I., Catonsville

SOPHOMORE CLASS

Berngartt, Elmar B., Baltimore
 Bloom, Morris, Baltimore
 Caplan, Clarice, Baltimore
 Celozzi, Matthew J., Baltimore
 Cohen, Harry I., Baltimore

Cohen, Samuel, Baltimore
 DiGristine, Mary R., Baltimore
 Ehudin, Herbert, Baltimore
 Feinstein, Bernard S., Baltimore
 Ginsberg, Samuel H., Baltimore

Goldberg, Albert, Baltimore
 Greenberg, Joseph, Baltimore
 Gumenick, Leonard, Baltimore
 Jaworski, Melvin J., Baltimore
 Kahn, Morton, Baltimore
 Kamenetz, Irvin, Baltimore
 Kasik, Frank T., Raspeburg
 Kline, Sidney, Baltimore
 Kursvietis, Anthony J., Baltimore
 Lassahn, Norbert G., Baltimore
 Lerman, Philip H., Baltimore
 Levin, Leon P., Baltimore
 Levy, Irving, Annapolis
 Mayer, Maurice V., Baltimore
 Miller, Edward, Baltimore

Poklis, Alphonse, Sparrows Point
 Richman, Philip F., Annapolis
 Rosen, Donald M., Baltimore
 Rosenberg, Morris, Baltimore
 Sachs, Norman R., Baltimore
 Sandler, Solomon, Baltimore
 Schlaen, Mildred, Baltimore
 Shook, Joseph W., Baltimore
 Siegel, Harold, Baltimore
 Silberg, Edgar M., Baltimore
 Simonoff, Robert, Baltimore
 Smith, Daniel E., Catonsville
 Sowbel, Irving, Baltimore
 Spangler, Kenneth G., Baltimore
 Zukerberg, Morris, Baltimore

FRESHMAN CLASS

Balassone, Francis S., Thomas, W. Va.
 Blankman, Albert J., Baltimore
 Buchwald, Eva D., Baltimore
 Buffington, James E., Catonsville
 Cerny, Henry F., Chase
 Cohen, Rose, Baltimore
 Collins, Thomas F., Cambridge
 DeGele, George O., Baltimore
 Fainberg, Alvin J., Baltimore
 Friedman, Arnold M., Baltimore
 Gassaway, Franklyn D., Clarkdale, Ariz.
 Glaser, Abraham E., Baltimore
 Goodman, Leon, Baltimore
 Hendin, Walter, Baltimore
 Kahn, Reuben, Baltimore
 Knode, Frances L., Baltimore

Kreis, George J., Baltimore
 Lindenbaum, Albert, Baltimore
 Martin, William R., Baltimore
 Moser, John T., Baltimore
 Norris, Muriel E., Baltimore
 Noveck, Irvin, Baltimore
 Oken, Jack, Baltimore
 Phillips, Emerson C., Salisbury
 Rosenthal, Bernard, Baltimore
 Rudoff, Oscar, Baltimore
 Sarubin, Milton, Ellicott City
 Schkloven, Judah, Baltimore
 Steel, Irvin, Baltimore
 Wiener, Herman D., Baltimore
 Wlodkowski, Edward M., Baltimore
 Zerwitz, Irving F., Baltimore

SPECIAL STUDENT

Dobbs, Edward C., Baltimore

BALTIMORE

THE SUMMER SCHOOL—1937

SCHOOL OF DENTISTRY

Betts, Robert L., Morris Plains, N. J.
 Cadden, John J., Baltimore
 Cohen, Sigmund, Baltimore
 Cohen, Sylvan P., Baltimore
 Cooper, David, Atlantic City, N. J.
 Eskow, Alexander B., Perth Amboy, N. J.
 Gasteazoro, Mariano, Panama City,
 Panama
 Legum, Isidor, Baltimore
 Joyce, Osler C., Arnold

Kahl, Gordon K., Baltimore
 Lazauskas, Algert P., Baltimore
 McCracken, Jules, Cameron, W. Va.
 Ouellette, Raymond T., Lawrence, Mass.
 Ramirez, Mario F., San Germán, Puerto
 Rico
 Robinovitz, Irving K., Fall River, Mass.
 Weigel, Sterling J., York, Pa.
 Yeager, John W., Baltimore

SCHOOL OF MEDICINE

Algire, Glenn H., Baltimore
 Arthur, William E., Cardiff
 Baier, John C., Mt. Hays
 Cannon, Martin L., Baltimore
 Caplan, Lester H., Baltimore
 Carozza, Anthony F., Baltimore
 Freeman, James A., Jr., West Union,
 W. Va.
 Glick, Irving V., New York, N. Y.
 Hecht, Morton, Jr., Baltimore
 Henning, Emil H., Jr., Baltimore
 Jacobson, Samuel M., Cumberland
 Kirchick, Julian G., Brooklyn, N. Y.
 Krieg, Edward F., Baltimore
 Loker, Frank F., Leonardtown
 Maccubbin, Harry P., Baltimore
 Markline, Simeon V., White Hall
 Mathers, Daniel H., Annapolis
 McClung, James E., Richwood, W. Va.
 McClung, William D., Richwood, W. Va.

Meade, Forest C., Hyattsville
 Molz, Edward L., Baltimore
 Muse, William T., Baltimore
 Painter, Elizabeth E., Baltimore
 Platt, William, Baltimore
 Pollock, Arthur E., Gallitzin, Pa.
 Pound, John C., Baltimore
 Rhode, Charles M., Baltimore
 Roop, Donald J., New Market
 Russillo, Philip J., Annapolis
 Schenthal, Joseph E., Baltimore
 Schlesinger, George G., New York, N. Y.
 Stayton, Howard N., Jr., Wilmington, Del.
 Supik, William J., Baltimore
 Tankin, Louis H., Baltimore
 Thompson, Raymond K., Riverdale
 Tompakov, Samuel, Baltimore
 Trevor, William, Baltimore
 Wixted, John F., Chesaning, Mich.

SCHOOL OF PHARMACY

Alessi, Alfred H., Baltimore
 Bergartt, Elmar B., Baltimore
 Binstock, Albert, Baltimore
 Celozzi, Matthew J., Baltimore
 Cohen, Samuel, Baltimore
 Councill, Wilford A. H., Jr., Baltimore
 DiGristine, Mary R., Baltimore
 Dobropolski, Anthony J., Baltimore
 Dunker, Melvin F. W., Baltimore
 EHUDIN, Herbert, Baltimore
 Floyd, Melvin L., Catonsville
 Francik, Joseph, Baltimore
 Freedman, Leonard, Baltimore
 Goldberg, Albert, Baltimore
 Golditch, Henry M., Baltimore
 Goldstein, Armand M., Baltimore
 Henson, Irving J., Baltimore
 Hiss, Priscilla F., Washington, D. C.
 Jaworski, Melvin J., Baltimore

Kahn, Morton, Baltimore
 Kasik, Frank T., Jr., Raspeburg
 Kosakowski, Chester G., Baltimore
 Levy, Irving, Annapolis
 Loftus, Howard E., Dundalk
 Lutz, Harry H., Baltimore
 Miller, Manuel, Baltimore
 Novak, Arthur F., Baltimore
 Okrasinski, Joseph L., Baltimore
 Proutt, Leah M., Hagerstown
 Richman, Jacob L., Baltimore
 Rosen, Donald M., Baltimore
 Sachs, Albert, Baltimore
 Siegel, Harold, Baltimore
 Smith, Daniel E., Catonsville
 Sowbel, Irvin, Baltimore
 Spangler, Kenneth G., Baltimore
 Zukerberg, Morris, Baltimore

COLLEGE PARK

THE SUMMER SCHOOL—1937

Aaronson, Philip J., Baltimore
 Abbott, Kathryn K., Bennings, D. C.
 Acheson, Elizabeth N., Washington, D. C.
 Albert, Earl A., Waterbury, Conn
 *Albright, M. Louise, Washington, D. C.
 Alder, Betty L., Rockville
 *Alderton, Harold L., College Park
 Alderton, Loretta, College Park
 Alexander, Lavinia M., Salisbury

*Algire, Glenn H., Baltimore
 *Allard, Howard F., Clarendon, Va.
 Allen, John J., Hagerstown
 *Allen, Louis P., Washington, D. C.
 Angelico, Arthur A., Brooklyn, N. Y.
 Anspen, Harry D., Washington, D. C.
 Anthony, Elizabeth C., Centerville
 *Archer, Louise V., Washington, D. C.
 Arnold, Charles M., Woodlawn

*Graduate students.

*Asero, John J., Washington, D. C.
 *Austin, Frances, East New Market
 Ayers, Alice J., Barton
 *Babylon, William H., Hancock
 Baer, A. Harris, Baltimore
 Bailey, Catherine V., Fruitland
 Bailey, Howard M., Parkton
 Bailey, Reginald T., Highfield
 Bair, Thelma E., Hancock
 Baker, Alva S., Catonsville
 *Baker, Kenneth W., Centerville
 Baldwin, Robert D., Riverdale
 Banks, Elizabeth B., Rockville
 Barbee, Susan G., Washington, D. C.
 Barber, Tena B., Vale Summit
 *Barcus, James W., Centerville
 Barnes, Ruth E., Bennings, D. C.
 *Barnhart, C. Paul, Williamsport
 *Baroniak, Katherine B., St. Mary's City
 Barthel, Robert A., Catonsville
 Barthel, William F., Catonsville
 *Bartlett, Helen R., Centerville
 Barton, Rose, Brunswick
 *Baugh, Ellie M., Eatonton, Ga.
 Baumann, Martin N., Pleasantville, N. Y.
 Baxley, Katherine W., Ellicott City
 Baxter, Ruth M., Washington, D. C.
 Beals, Jane H., Washington, D. C.
 Beane, Bessie A., Bennings, D. C.
 Beauchamp, William F., Snow Hill
 Beck, Alma K., Davidsonville
 Beckwith, John C., Petersburg, Va.
 Becraft, Mabel V., Washington Grove
 Bedsworth, Margaret C., Princess Anne
 *Bellows, John M., Jr., Maynard, Mass.
 Benjamin, Bernice, Salisbury
 Bennett, Edith C., Mechanicsville
 Benson, Ritchie E., Hyattstown
 *Berchtold, Louise E., Washington, D. C.
 Berlin, Walter I., Baltimore
 Bernstein, Norman N., Washington, D. C.
 *Bickley, William E., Martel, Tenn.
 *Bickmore, Helen D., Washington, D. C.
 *Biehl, Katharine L., Frederick
 Birch, Marian, Hyattsville
 Birkland, John V., College Park
 Birmingham, Michael J., Baltimore
 Biron, Bobbie, Salisbury
 *Bischoff, Anthony, Lothian
 *Bischoff, Lillian S., Lothian
 *Bishop, Catherine A., Queenstown
 Bishop, James W., Laurel, Delaware
 *Black, Charles T., Chicago, Illinois
 Blacklock, Josiah A., Towson
 Blake, Frank E., Washington, D. C.
 Bloom, Morton I., Baltimore

Bollinger, Garcia G., College Park
 Bonnett, Howard G., Washington, D. C.
 Boone, Athol B., Crisfield
 Borlik, Ralph, Washington, D. C.
 *Boston, William T., Cambridge
 Boswell, Alice, Brookeville
 Bowen, C. Vernon, Centerville
 *Bower, Francis M., Mt. Rainier
 Bowie, Frances W., Berwyn
 Bowie, Oden, Mitchellville
 Bowling, James E., Newport
 Bowling, Thelma P., Faulkner
 *Bowman, Helen B., Union Bridge
 Boyd, Ann G., Olney
 Boyd, Hollis R., Washington, D. C.
 *Brain, Earl F., Frostburg
 Branson, Lindsay B., Washington, D. C.
 Bray, Nona D., Hyattsville
 *Brechtbill, Edith L., College Park
 Bredekamp, Marriott W., Washington,
 D. C.
 Brice, Eleanor V., Annapolis
 Bride, Crescent J., Rockville
 Brigham, David L., Ashton
 Britton, Rose, Washington, D. C.
 Brode, Carl K., Frostburg
 Brooks, William R., Pikesville
 Brown, Clara E., Annapolis
 *Brown, George C., Asheville, N. C.
 *Brown, Marshall G., Oakland
 Brown, Mary B., Upper Marlboro
 Brown, Ruth D., Woodstock
 *Bruehl, John T., Centerville
 Brusowankin, Bessie, Baltimore
 *Bryson, Beth, Baltimore
 Buck, Marjorie M., Indian Head
 Buckler, Mary F., Aquasco
 Buckworth, Mary S., Middletown, Del.
 *Buddington, Arthur R., College Park
 Bullock, Elizabeth B., Binghamton, N. Y.
 Bullock, Evelyn A., Baltimore
 Bullough, G. Van Ness, Baltimore
 Burch, Elizabeth B., Charlotte Hall
 Burdette, Dorothy S., Mt. Airy
 Burdette, Eunice E., Laurel
 Burdette, Nellie L., Mt. Airy
 Burgee, Ralph M., Ijamsville
 Bunk, Joseph, Waterloo, Iowa
 *Burke, Edmund T., Silver Spring
 Burke, Francis V., Silver Spring
 Burns, Harriet D., Denton
 *Burr, Clifton W., Lewisburg, W. Va.
 Burroughs, Viola J., Aquasco
 *Burruss, Martha B., Front Royal, Va.
 Burton, Beulah M., Washington, D. C.
 Burton, Julia, Baltimore

*Graduate students.

*Butterfield, George P., Ironwood, Mich.
 *Butz, Mary M., Rockville
 Byer, Henry L., Sparrows Point
 Byers, G. Ellsworth, Lonaconing
 Campbell, Gordon H., Washington, D. C.
 Campbell, Marjorie H., Washington, D. C.
 Campiglio, Robert G., Baltimore
 Cantwell, Hammond D., Cambridge
 Caplan, Florence M., Baltimore
 Caplan, Jerome, Baltimore
 Carrico, Norman, Cumberland
 *Carroll, Floyd D., Mt. Clare, Nebraska
 *Carter, Adrienne, Oakland
 *Carter, John H., Oakland
 Case, Sara V., Felton, Del.
 Cassel, Jane C., Harrisburg, Pa.
 Casson, Margaret H., Easton
 Castle, Florence A., Williamsport
 Catterton, Elizabeth N., Bristol
 Chambers, Pauline P., Centerville
 Chandler, Miriam T., Grayton
 Checket, Irene R., Baltimore
 Cherbonnier, Dorothy H., Royal Oak
 *Chesley, H. Elizabeth, Baltimore
 Cheyney, Elizabeth B., Arlington, Va.
 Chiswell, Marjorie W., Gaithersburg
 Christie, Mary E., Washington, D. C.
 Cissel, Beatrice S., West Friendship
 Claggett, Jennie D., Preston
 Clark, A. D., Washington, D. C.
 Clark, Charles T., Laurel
 *Clark, Percy E., Upper Marlboro
 Clarke, Elizabeth S., Washington, D. C.
 Claytor, Margaret A., Riverdale
 Cleaver, William F., Washington, D. C.
 *Clevenger, Helen E., Everett, Pa.
 Close, Marion B., Frostburg
 *Coblentz, Manville E., Vienna
 Coffman, Naomi H., Fairplay
 Cogswell, Phyllis J., Washington, D. C.
 Cohen, Maxwell L., Washington, D. C.
 Cohen, Harry, Baltimore
 Cole, William H., Towson
 Cole, William P., Glenarm
 *Colip, Louise R., Riverdale
 Collins, Hiram H., Crisfield
 Collison, Malcolm N., Takoma Park
 Combs, Edna E., Mt. Rainier
 Combs, Maxine, Fairmont, W. Va.
 Comegys, Estella K., Chestertown
 *Compton, Calvin L., Pisgah
 Conlon, Margaret R., Frostburg
 Conningham, Barbara J., Washington, D. C.
 Conrad, Maude E., Williamsport
 Cook, Laurel D., Bethesda
 Cook, Mildred L., College Park
 Cooke, Alfred A., Hyattsville
 Cooke, Charles H., Washington, D. C.
 Coombs, Albert H., Washington, D. C.
 Copes, Bessie E., Silver Spring
 Copes, Grace R., Silver Spring
 Corbett, Ruth, Baltimore
 Corbett, Violet E., Hancock
 Corey, Ellen B., Littleton, N. H.
 Corkran, Clarence H., Anacostia
 *Cornelius, Alberta S., Lynch
 *Cornell, Florence N., Chevy Chase
 Cornell, Ellner A., Brentwood
 Corosh, Frances R., Annapolis
 Corridon, Jack R., Washington, D. C.
 Coulbourne, Alice M., Crisfield
 Coulby, Mary C., Easton
 Cowie, Jean A., Havre de Grace
 Cox, Clara V., Parkton
 Craig, Evelyn M., Elk Mills
 Craig, Madie E., Brentwood
 *Cramer, Bessie W., Washington, D. C.
 Cressman, Kathryn, Boonsboro
 Cronise, A. Katherine, Frederick City
 Crosby, Virginia E., Friendship
 Crowder, Adelaide M., Washington, D. C.
 Cullen, M. Elizabeth, Marion Station
 Culler, W. Walter, Jr., Walkersville
 Culp, Charles H., Whiteford
 Curfman, Joseph E., Sabillasville
 Curley, Kathryn L., Cumberland
 Dahlgren, Clyde R., Oakland
 Dahlgren, Ruby A., Frostburg
 Dahn, Nona E., Chevy Chase
 Daisey, Jessie D., Glenn Dale
 Dalinsky, Isador J., Baltimore
 Danforth, Shirley F., Riverdale
 Daniels, Catherine L., Lusby
 *Dantzig, Anne S., Baltimore
 Darby, Eleanor N., Washington, D. C.
 Daugherty, Irvin W., Williamsport
 Davidson, Lida M., Chevy Chase
 *Davidson, Nellie M., Silver Spring
 Davis, Barbara J., Chevy Chase
 *Davis, Edward F., Arlington, Va.
 *Davis, Gertrude J., Frostburg
 Davis, Katherine I., Washington, D. C.
 *Dawson, Catharine I., Richmond, Va.
 *Dawson, Roy C., Washington, D. C.
 *Day, Muriel E., Oxford
 Dean, Gladys M., Middletown, Del.
 DeNeen, Rhea V., Hancock
 Derr, L. Hubert, Monrovia
 Derr, Naomi, Hampstead
 Detwiler, Frank J., Takoma Park
 DeWilde, Cornelia, Preston

*Graduate students.

Dick, Alice S., Cumberland
 Dick, Ruth E., Washington, D. C.
 Dillon, Mary C., Washington, D. C.
 Dippel, Francis X., Patterson Park
 Dodd, Ocie E., Chevy Chase
 Donohoe, Mildred D., Baltimore
 Dorsey, Agatha V., Midland
 Dotterer, Jacklyn S., Chevy Chase
 *Doub, Charles A., Leonardtown
 *Douglass, Edgar M., Washington, D. C.
 Dowden, Elizabeth E., Washington, D. C.
 Dowling, Vernon T., Annapolis
 *Downey, Mylo S., College Park
 *Dugan, Raymond F., Towson
 Dulin, Blanche S., Washington, D. C.
 Dungan, Nevis, Baltimore
 *Dunker, Melvin F., Baltimore
 Dunwoody, Ruth M., Baltimore
 Durrant, Charlotte F., College Park
 *Duvall, Maude R., Rockville
 *Duvall, Wilbur I., Gaithersburg
 *Dyer, Harry E., Havre de Grace
 Dyson, Edna M., Charlotte Hall
 Earle, Mary I., Washington, D. C.
 *Edgeworth, Clyde B., Towson
 Edlavitch, Robert, Hyattsville
 Edwards, John B., Washington, D. C.
 *Eiler, Charles M., Union Bridge
 Ellegood, Georgia G., Delmar
 Ellery, Rosina, Nanticoke, Pa.
 Elliott, E. V., Baltimore
 Ellison, Max M., Baltimore
 Elmore, Edna E., Washington, D. C.
 Epperson, John W., Winona, W. Va.
 Ermold, John G., Ellicott City
 Ernest, Lois E., Kensington
 Etchison, Katherine, Gaithersburg
 Evans, Hal K., Bladensburg
 *Everett, Genevieve, Pasadena
 *Eyler, Marian, Cumberland
 Faiella, John D., Yonkers, N. Y.
 Falcone, Thelma E., Washington, D. C.
 Farlow, Margaret S., Baltimore
 Farrell, Albert B., Washington, D. C.
 Farrington, Mary C., Hyattsville
 Faust, Bernard B., Washington, D. C.
 Fawcett, Howard H., Cumberland
 Fenwick, Lucy I., Aquasco
 Fey, Alice V., Bethesda
 *Filler, W. Arthur, Baltimore
 Filmer, Catharine P., Laurel
 Fisher, Joseph G., Baltimore
 *Flanagan, Inez E., Walkersville
 *Fleetwood, Robert T., Denton
 Fletcher, Lucille W., Rockville
 Flinn, Nannie R., Kensington
 Foehl, Marie E., Washington, D. C.
 *Foley, Julia C., Rockville
 Fooks, Annie E., Bethesda
 Footer, Thomas, Barton
 Ford, Alleine K., Boonsboro
 Forman, Morris, Baltimore
 Fowble, Florence W., Reisterstown
 Fox, Hamilton P., Salisbury
 Fox, William W., Washington, D. C.
 Foxwell, Gertrude E., Leonardtown
 France, Germanus J., Baltimore
 Francis, Harold E., Washington, D. C.
 Frantz, Merle D., Friendsville
 Franzoni, Joseph D., Washington, D. C.
 Freeman, L. Louise, Boonsboro
 Freeman, Mary J., Charlotte Hall
 Freeman, Willye B., Washington, D. C.
 Freudenberger, John G., Carroll Station
 *Frey, Elizabeth C., Millersville, Pa.
 *Friedman, Harold B., Silver Spring
 *Frisbie, Kenneth W., Bethesda
 Frushour, Harry V., Myersville
 Fuchser, Marie M., Emerson, Nebraska
 Fugitt, Elizabeth S., Washington, D. C.
 Fulgham, Evel W., Washington, D. C.
 Fulmer, Edna M., Frederick
 *Funk, Merle R., Boonsboro
 Furbershaw, Olga S., Washington, D. C.
 Furniss, Thelma A., Princess Anne
 Gale, Mary V., Hagerstown
 Galloway, Rhea M., Lonaconing
 *Gardner, Eva M., Jessups
 Gary, Ruth E., University Park
 Gehman, Jonathan F., Brentwood
 Gibbes, Ella H., Savannah, Ga.
 Gilchrist, Flora I., Laurinburg, N. C.
 Giles, Martha R., Annapolis
 *Gillespie, Warren, Galena
 *Glading, Rebekah F., Lanham
 Glime, Gilbert, Frostburg
 Goldsmith, John S., Allen
 Goller, Carl, Baltimore
 Gomborov, Minnie, Baltimore
 *Gordon, Fortuna L., Fayette, Mo.
 Gordon, Jack L., Riverdale
 Gordy, Martha, Rhodesdale
 Gosnell, Grace V., Laurel
 Gough, James J., Chaptico
 *Grace, Meta E., Clanton, Ala.
 *Graham, James G., Washington, D. C.
 *Graham, Julian R., Sudlersville
 *Gray, Ellen H., Reisterstown
 Gray, Jane E., Port Tobacco
 *Green, Janice H., Gaithersburg
 *Green, Mary O., Boyds
 Greenwell, Hope, Leonardtown

*Graduate students.

*Gregory, Florence I., Washington, D. C.
 Griffith, Ann M., Rockville
 *Griffith, Francis D., Brandy, Va.
 Griffith, Sarah S., Rockville
 Gross, Esther B., Sharpsburg
 Gross, Irving, Newark, N. J.
 Grove, Edith M., Chevy Chase, D. C.
 Gue, Ruth S., Rockville
 *Gwynn, Thomas S., Clinton
 *Haas, Frances S., Takoma Park
 Hall, Eleanor, Fairmont, W. Va.
 *Hall, Elizabeth G., Silver Spring
 Hall, N. Irene, College Park
 *Hamme, Wilson S., Seven Valleys, Pa.
 Hammer, Ralph C., Cumberland
 *Hammond, Rachel A., Mt. Airy
 *Hand, George E., Washington, D. C.
 *Handy, Effie B., Washington, D. C.
 *Hanna, Mary G., Westernport
 *Hanna, Otis D., Port Deposit
 *Hanna, W. Miles, White Hall
 Harcum, Bettie, Salisbury
 *Hardcastle, Aaron B., Richmond, Va.
 *Hardell, Elmer P., Washington, D. C.
 Hardell, Nellie G., Washington, D. C.
 Harding, Elaine M., Highland
 Harmon, June, Silver Spring
 Harmon, Katharyn E., Salisbury
 Harris, Eleanor, Aldie, Va.
 Harrison, Bernard A., Washington, D. C.
 *Harrison, George K., Upper Marlboro
 Hart, Pearl M., Washington, D. C.
 *Hartenstein, Helena J., New Freedom, Pa.
 Harvey, Carolyn H., Olney
 Haslbeck, Theresa M., Cumberland
 Haspert, Mathews J., Chester
 Hazard, Rosemary, Chevy Chase
 Heaps, Laura F., Cardiff
 Heghinian, Garabed W., Baltimore
 Hellstern, Charlotte M., Hudson Heights,
 N. J.
 Helmers, Carolyn, Washington, D. C.
 Henderson, Esther L., Washington, D. C.
 Hendricks, Lucy T., Hyattsville
 Hendrix, Nevins B., Port Deposit
 *Henley, Robert C., Washington, D. C.
 Hepbrun, Louise, Betterton
 Herbert, Wilbur M., Morrell
 Hewitt, Frederic M., Chevy Chase
 Heylman, Stanley L., Baltimore
 Hickman, Mildred M., Crisfield
 *Higgins, William B., Hyattsville
 *High, Louis F., Abingdon
 Hilton, Elizabeth J., Mt. Airy
 Hirsch, Albert, Frederick
 *Hitchcock, George R., Silver Spring

Hite, Norborne A., Port Deposit
 *Hitz, C. W., Fortescue, Mo.
 *Hoadley, Alfred D., Swarthmore, Pa.
 Hobbs, Eva E., Washington, D. C.
 Hobbs, Marguerite W., Washington, D. C.
 Hobson, Barbara E., Washington, D. C.
 *Hodges, Leslie C., Warsaw, Va.
 Hohman, Gertrude E., Elkridge
 Holbrook, Helen P., College Park
 *Holland, Rebecca P., Walkersville
 *Holley, Julia W., Damascus
 Hollingsworth, Mary L., Hyattsville
 *Hollis, Edgar H., Frederick
 *Holmead, Francis S., Silver Spring
 *Hoover, Jacob H., Fruitland
 Hoover, Lawrence G., Takoma Park
 Hopkins, Anne C., Cordova
 Hopkins, Grace R., Easton
 Hopkins, Martha T., Catonsville
 Horine, Frances V., Jefferson
 *Horn, Walter E., Arlington, Va.
 Horsey, Maude B., Mardela Springs
 Hosken, Margaret R., Accokeek
 *Houchen, Grace, Washington, D. C.
 *House, B. M., College Park
 House, Dorothy M., Flintstone
 House, Mildred L., Flintstone
 House, Theresa R., College Park
 Houser, Emilie T., Laurel
 *Hovermill, Harry A., Rising Sun
 Howard, Adrienne R., Hyattsville
 *Howland, Lionel B., Laurel
 *Hudson, Yola V., Cumberland
 Humelsine, Carlisle H., Hagerstown
 Hurley, Robert F., Hyattsville
 Hutchison, Frances E., Chevy Chase
 Hutchison, Stella B., Queen Anne
 *Hutton, A. Claire, Brinklow
 Hyde, Jennie M., Barton
 *Ide, Frances A., Baltimore
 Ingrick, Helen S., Washington, D. C.
 Ireland, Julius W., Baltimore
 Ison, Patricia, Hyattsville
 Jackson, Lorraine V., College Park
 Jacobs, Mary H., Gaithersburg
 Jacobs, Nathaniel J., Baltimore
 Jacobs, Norman B., Jr., Gaithersburg
 Jacques, Jane, Smithsburg
 Jacques, Lancelot, Jr., Smithsburg
 Jacques, Mary L., Smithsburg
 James, Jennie P., Mt. Rainier
 *James, Lillie H., Hyattsville
 Jarrell, Evelyn R., Hyattsville
 Jefferson, Evelyn M., Salisbury
 Jehle, John R., Hyattsville
 *Jewell, Edgar G., Damascus

*Graduate students.

Johns, Malcolm L., Washington, D. C.
 Johnson, Clifford E., Washington, D. C.
 Johnson, Vivian H., Baltimore
 Johnson, William R., Baltimore
 Johnston, Frederick A., Takoma Park
 *Johnston, John W., Webster Mills, Pa.
 Jones, Anna B., Snow Hill
 Jones, Carrie R., Church Creek
 *Jones, Helen H., Germantown
 Jones, Leonore G., Faulkner
 Jones, Lewis A., College Park
 Jones, Mary E., Loveville
 *Jones, Omar J., Jr., Faulkner
 Jones, Robert W., College Park
 *Jones, Robert W., Frostburg
 *Jones, William B., Ellicott City
 Joseph, David R., Stamford, Conn.
 *Joy, Mary E., Leonardtown
 Judy, Gladys L., Cumberland
 *Jump, Margaret D., Queen Anne
 *Jump, Raymond, Saint Michaels
 Kalb, Merrill B., Baltimore
 *Kanatzar, Charles L., St. Elmo, Ill.
 *Kapiloff, Leonard, New York, N. Y.
 Katz, Lillian, Morganton, N. C.
 Katz, Lillian, Washington, D. C.
 *Katz, Mildred R., Baltimore
 Kaufman, Daniel, Washington, D. C.
 Kaufman, Josephine, Washington, D. C.
 Keefer, Ruth L., Takoma Park
 *Keller, Clarence Z., Princess Anne
 Keller, Joseph E., Washington, D. C.
 Keller, Thelma I., Hagerstown
 Kennedy, Edward J., Baltimore
 Kepler, Russell L., Hagerstown
 Keppler, Millicent M., Washington, D. C.
 Kilby, Wilson W., Conowingo
 King, Irene H., Huntingtown
 *King, Ruth S., Washington, D. C.
 King, Vernon J., Lansdowne
 King, William S., Washington, D. C.
 Kingdon, Hattie C., Rockville
 Kinna, C. Robert, Chewsville
 Kirby, James T., Trappe
 Kirby, Marion, Takoma Park
 *Kirk, Ruby L., Elkton
 Knotts, Dorothy E., Templeville
 Koppelman, Mary, Cornwall on the Hud-
 son, N. Y.
 Kraemer, Edwin, Hackensack, N. J.
 Kramer, Amihud, Baltimore
 Krause, Louise E., Towson
 Krause, Dorothy E., Baltimore
 *Krause, Harry W., Baltimore
 *Kreider, David, Lanham
 *Kroh, Cornelia C., Westminster

*Graduate students.

Ladson, Jack A., Olney
 *Lamberton, Berenice E., Washington,
 D. C.
 Lambros, Theodora S., Washington, D. C.
 *Lanahan, Doris, Laurel
 Land, Robert H., Baltimore
 *Landrum, Lonny I., Rock Hill, S. C.
 *Lanford, Charles B., Bowling Green, Va.
 *Lannon, Mildred W., Cumberland
 Larrimer, Frances E., Hanover
 Larsen, Dorothy M., Brigham, Utah
 *Lawyer, Mary L., Westminster
 *Lee, Marion, Washington, D. C.
 Legge, Jane M., Cumberland
 Lehman, Milton L., Baltimore
 *Leidy, Katherine, Westminster
 Lentz, Roberta H., Washington, D. C.
 Leonard, Norma L., Trappe
 Leonard, Norman H., Jr., Trappe
 Levin, Sol, Baltimore
 Lewald, James H., Laurel
 Lewis, Frank H., Frederick
 Lewis, Geraldine L., Brunswick
 *Liebman, Rebekah R., Norfolk
 Lindsay, Margaret L., Washington, D. C.
 Littleford, Rita T., Washington, D. C.
 Littleton, Alberta M., Snow Hill
 Livingstone, Eva M., Capitol Heights
 *Loeffler, Ernestine M., Laurel
 Loper, Albert K., Cumberland
 Lowery, Norma L., Cumberland
 *Lucas, Philip E., Arlington, Va.
 Lufburrow, Miriam A., Cambridge
 Luyster, Madge C., Washington, D. C.
 Lynch, Elizabeth S., Washington, D. C.
 *Lyon, Marie H., Hyattsville
 Lynt, Richard K., Jr., Washington, D. C.
 *MacCallum, Annie P., Silver Spring
 MacDonald, Charles R., Cumberland
 MacDonald, Margaret E., Bethesda
 Magaha, Dora M., Frederick
 Magaha, E. Adeline, Frederick
 Magaha, Evelyn M., Burkittsville
 *Magruder, John W., College Park
 Males, Alex, East Pittsburgh, Pa.
 Mangum, Susie A., Washington, D. C.
 Manley, Catherine E., Midland
 Marlow, Dorothy E., Washington, D. C.
 Marshall, Gwendolyn H., Princess Anne
 Marshall, P. W., Washington, D. C.
 Martin, Alta G., Hagerstown
 *Martin, Ardath E., Hagerstown
 Martin, Carrie P., Baltimore
 Martin, Grace W., Washington, D. C.
 Mason, Amy E., Washington, D. C.
 *Massey, James B., Hampden Sydney, Va.

Massey Mabel, Williamsburg, Va.
 Matson, Ruby I., Takoma Park
 Matthews, Abigail G., La Plata
 Matthews, Edward A., Baltimore
 Maxson, Ruth H., Silver Spring
 Mayhew, Elizabeth A., Hyattsville
 McCall, Mildred L., Washington, D. C.
 McCann, R. Harold, Glen Burnie
 McCarriar, Herbert G., Baltimore
 McClean, William C., Dundalk
 *McDermott, Edna C., Midland
 *McGinniss, Arria G., Kensington
 McGinnis, Verneena, Pomonkey
 McLaughlin, Doris M., Highfield
 McGoogan, Malcolm T., Fitzgerald, Ga.
 McGregor, Bessie E., Washington, D. C.
 McIntyre, Myrtle E., Cumberland
 McKeever, Alice A., Boyds
 McLuckie, Donald, Frostburg
 McMahan, Catherine E., Cambridge
 *Meacham, Frank B., Raleigh, N. C.
 Mead, Joan, Takoma Park
 Medbery, Dorothy A., Washington, D. C.
 *Meekins, Elizabeth G., Lenoir, N. C.
 Meeks, George E., Washington, D. C.
 Mees, Theo. H., Washington, D. C.
 Meese, Louise, Barton
 Meese, Mae, Barton
 Melick, Amanda D., Salisbury
 Melroy, Ruth M., Washington, D. C.
 Meng, Ralph H., Perry Point
 *Merritt, Helen C., Forest Glen
 Metcalf, Owen E., Crystal Lake, Ill.
 Meyer, Elizabeth, Washington, D. C.
 Meyer, Ruth S., Arlington, Va.
 Meyers, Mary E., Lonaconing
 Micari, Fred S., Bristol, Conn.
 *Middleton, Frederic A., Washington, D. C.
 *Miles, Ivan E., State College, Miss.
 Millar, Dorothy V., Washington, D. C.
 Miller, Elna M., Silver Spring
 *Miller, Frances B., Manchester
 *Miller, J. Z., Elkton
 Miller, Marjorie L., Fort Monroe, Va.
 Miller, Mary E., Baltimore
 Miller, Ruth C., Baltimore
 Miller, William I., Baltimore
 Mills, Wyona T., Toddville
 Minnick, Grace V., Washington, D. C.
 Mitchell, Alfred G., Baltimore
 Mitchell, Mary, Jessups
 *Mitchell, Orrel J., Washington, D. C.
 Mohle, Robert L., Berwyn
 Monroe, Mary E., Washington, D. C.
 Moore, Beryl L., Elgin, Ill.
 Moore, Evelyn W., Washington, D. C.

*Graduate students.

*Moore, Florence J., Port Deposit
 Moore, Grace E., White Hall
 *Morgan, Estheline W., Chevy Chase
 Morgan, Joseph H., Port Tobacco
 Morgan, Mary, Frostburg
 Morningstar, Mary A., Barnesville
 Moser, Marion, Frederick
 Motyka, Agnes L., Washington, D. C.
 Mudd, H. Virginia, Pomfret
 Mulitz, Milton M., Washington, D. C.
 *Mulligan, Mary E., Berwyn
 *Mumma, Samuel C., Sharpsburg
 Murphy, Bernice L., Fishing Creek
 *Murphy, Harry T., Ellicott City
 *Myers, Gibbs, Washington, D. C.
 Myers, Mabel E., Frostburg
 Myers, Paul F., Chevy Chase
 *Nathanson, Albert E., Arlington, Va.
 Nattans, Ralph A., Baltimore
 Nedomatsky, Ivan, Lansdowne
 Needle, Barnett M., Washington, D. C.
 Needy, Glendora E., Boonsboro
 Neff, Virginia K., Frostburg
 Nefflen, Myra M., Keyser, W. Va.
 Neilson, Robert S., Baltimore
 Nesbitt, Geraldine H., Baltimore
 Niemeyer, Gertrude E., Washington, D. C.
 Norris, Cecil, Baltimore
 O'Brien, Kitty, Luke
 O'Keefe, Bernice E., Rockville
 Oland, Gladys P., Olney
 O'Neill, Richard J., Woodlawn
 Osborn, Mary J., Flintstone
 Oster, Leota, Flintstone
 Oswald, Huyette B., College Park
 *Otto, Thomas W., Towson
 Owens, Frances J., Washington, D. C.
 Owens, James D., Linthicum Heights
 Owens, Lenora, Greenock
 Owings, Helen B., Owings
 Pahlman, Margaret B., Easton
 *Painter, Elizabeth E., New Freedom, Pa.
 Palmer, Charlotte A., Chewsville
 Parker, Mildred I., Berwyn
 Parks, John A., Cumberland
 *Parmenter, Miriam F., Keene, N. H.
 Parvis, Charles F., Baltimore
 Pasma, Henry K., Mrs., Rockville
 *Patterson, Walter G., New Galilee, Pa.
 *Paulett, Edward W., Arlington, Va.
 Peiter, Doris S., Washington, D. C.
 Perdew, Elma C., Cumberland
 Perlstein, Sam, Washington, D. C.
 Petersen, Olga C., Hyattsville
 Phillips, Esther V., Silver Spring
 *Phillips, Watson D., Elkton

Philpott, Lucile, Cadiz, Ohio
 Plowden, Edna W., Newport
 Poland, Evelyn B., Cumberland
 *Poole, Harry R., Hagerstown
 Poole, Helen N., Hagerstown
 Poole, Virginia L., Poolesville
 Porter Aline C., Washington, D. C.
 Posey, Walter B., College Park
 *Poston, Margaret C., Washington, D. C.
 Powell, Alice, Berwyn
 Powell, Dorothy M., Dorsey
 Powell, Veanetta M., Frostburg
 *Powers, Mary I., Frostburg
 Preble, Merle R., Fort Washington
 *Priest, Hazel, Washington, D. C.
 *Pritchard, Orpha B., Cumberland
 *Pritchard, Virginia G., Cumberland
 Pritchett, Lillian A., Bishop's Head
 Prout, Rebecca S., Friendship
 Pryor, Glen M., Lantz
 Pryor, Leone L., Washington, D. C.
 Pultz, Kathryn E., Takoma Park
 Punnett, Ruth S., Leonia, N. J.
 Pyle, Helen D., Bethesda
 Pyle, Patience H., Chestertown
 *Pyne, Thomas W., Bethesda
 Pyles, Helen W., Rockville
 *Pyne, Iva E., South Beloit, Ill.
 Quijano, Gregorio R., Riverdale
 *Quinn, Edward F., Washington, D. C.
 Raisin, Herman S., Brooklyn, N. Y.
 *Ramsburg, Herman F., Frederick
 Reed, Catherine T., Riverdale
 *Reed, Edward D., Alexandria, Va.
 *Reed, Harriet A., Chevy Chase
 Reed, Octavia E., Washington, D. C.
 Reeder, Harriet, Morganza
 Regan, Ethel M., Mt. Rainier
 *Reidy, Kathryn, Silver Spring
 Remington, Jesse A., Laurel
 *Remley, Estelle W., Washington, D. C.
 *Remsberg, J. Homer, Middletown
 Reynolds, Mary F., Mt. Savage
 *Rhodes, Harry C., Poolesville
 *Rhodes, Louis K., Jr., Queenstown
 Richardson, Mildred M., Willards
 Richardson, Minnie J., Willards
 Richardson, Myra H., Whiteford
 Richmond, Nadine N., Washington, D. C.
 Riedel, Kathryn E., Hyattsville
 Rieg, Mary, Washington, D. C.
 Riehl, Frederick K., Baltimore
 Ringler, Margaret K., Flintstone
 *Robertson, Roy L., Elkton
 Roby, Maud F., Riverdale
 Rochlitz, Ethel E., Arnold

*Graduate students.

Rockwood, Marion, Silver Spring
 Rodier, John M., Lanham
 Rogers, Jerome S., Bethesda
 *Roland, Elsie H., Flintstone
 *Rolston, Frank, Washington, D. C.
 Rose, Lael T., Washington, D. C.
 *Roth, Alfred C., Annapolis
 Roylance, Merriwether L., Glenn Dale
 Rucker, Clara M., Garrett Park
 Rudolph, Elsie, Hillsdale, N. Y.
 *Rusk, Gertrude P., Kensington
 Russell, Joseph S., Maddox
 Saltzman, Michael, Baltimore
 Samson, Elizabeth, Takoma Park
 Sangster, Ruth H., Washington, D. C.
 Saperstein, Paul, Baltimore
 *Sasscer, Cora D., Chevy Chase
 Saunders, Elizabeth H., Washington, D. C.
 Scally, Mary I., Lutherville
 Scates, Irene, Gaithersburg
 Schaeffer, Carol J., Washington, D. C.
 Schellinger, Helen N., Kent
 *Schenthal, Joseph E., Baltimore
 Schlesinger, Arthur, Washington, D. C.
 *Schnebly, Lewis A., Clearspring
 Schultz, Dorothy J., Rockville
 Schwartz, Charles H., Branchville
 Schwartz, Mortimer, New York, N. Y.
 Schwartz, Norton B., Spring Valley
 N. Y.
 Scoggin, Josephine C., Beatrice, Nebr.
 Scott, Roy F., Washington, D. C.
 Secrest, John P., Brentwood
 Seitz, Charles E., Glen Rock, Pa.
 Sensenbaugh, Glenn H., Smithsburg
 Sergeant, Edith M., Fairmont, W. Va.
 *Severance, Katheryne, Gaithersburg
 Sharp, Emily L., Washington, D. C.
 Shaw, Clay W., Stewartstown, Pa.
 Shearer, Kathleen M., Baltimore
 *Sheff, Joseph, Annapolis
 Shenk, Virginia, Hagerstown
 *Shepherd, Boland B., Orrum, N. C.
 Shepperd, Anna G., Upper Falls
 Shepperd, Regina B., Upper Falls
 Sheridan, Richard B., Salisbury
 *Shipley, Ruth J., Washington, D. C.
 Shires, Dorothy W., Cumberland
 *Shirk, Harold G., Hyattsville
 Shmuner, Daniel P., Baltimore
 Shockley, Edith B., Parsonsburg
 Shrewsbury, William J., Upper Marlboro
 Shue, Elise D., Hagerstown
 Shulman, Samuel, Washington, D. C.
 Shupp, Virginia W., Clearspring
 *Sibley, Martha, Milledgeville, Ga.

*Sieling, Frederick W., Annapolis Junction
 Silberg, I. Walter, Baltimore
 *Silverman, Frank, Baltimore
 *Simonds, Gardner W., Silver Spring
 Simpson, Doris V., Hagerstown
 *Sipple, Margaret, Frostburg
 *Skelton, Bessie W., Hyattsville
 *Skinner, Geneva K., Takoma Park
 Skirven, Emilie N., Chestertown
 *Slade, Hutton D., Baltimore
 Sloan, James D., Cumberland
 Slocum, Dorothy J., Washington, D. C.
 *Small, John R., Elkridge
 Smith, Blair H., Mt. Rainier
 Smith, Dorothy G., Hyattsville
 Smith, Ellen L., Upper Marlboro
 *Smith, Helen I., Takoma Park
 Smith, Helen K., Big Spring
 Smith, Irvin, Denton
 Smith, Marian, Washington, D. C.
 Smith, Martha E., Goldsboro
 *Smith, Mary E., Frederick
 Smith, Ruth E., Frederick
 *Smith, Ruth P., Silver Spring
 Smith, Wilson L., Stevenson
 Smithers, Ann S., Germantown
 Snow, Mary R., Chevy Chase
 *Snyder, Ethel, Laurel
 *Snyder, Ruth I., University Park
 Sollod, Leonard, Baltimore
 Soper, Ruby, Washington, D. C.
 Sothoron, Julia H., Charlotte Hall
 Souder, Letty H., Gaithersburg
 Soule, Floyd A., Washington, D. C.
 Speake, Mary M., Luray, Va.
 *Speaker, Clare J., Washington, D. C.
 Speare, Almus R., Jr., Rockville
 *Speck, Marvin L., Middletown
 *Speicher, John P., Accident
 *Speir, Hugh B., Westminster
 *Spicknall, Florence L., Hyattsville
 Stanley, Anna J., Silver Spring
 Stanley, Gertrude W., Mt. Airy
 *Steffey, Phoebe, Williamsport
 Steiner, Wilmer W., Washington, D. C.
 Sterling, Burnice H., Crisfield
 Stevens, Eileen, Riderwood
 Stevens, Margaret T., Sudlersville
 *Stewart, Laura C., Washington, D. C.
 *Stier, Howard L., College Park
 Stillings, Charles A., Baltimore
 Stone, Marguerite M., Takoma Park
 Stonebraker, John E., Hagerstown
 *Straub, Eleanor H., Cumberland
 *Strauss, Samuel, Washington, D. C.
 Streett, John H., Bradshaw

*Graduate students.

*Stull, Robert B., Frederick
 Stumbaugh, Marian G., Hagerstown
 Sullivan, Rosalyn C., Chevy Chase
 Sullivan, Ross H., Pleasantville, N. J.
 *Sutton, Carrie O., Washington, D. C.
 Swan, Augusta M., Washington, D. C.
 Swann, Alice O., Dentsville
 Swink, Janis E., Hagerstown
 Taschenberg, Emil F., Cumberland
 Tawes, Elizabeth, Crisfield
 Taylor, Mary W., Washington, D. C.
 *Teal, Dorcas R., Hyattsville
 Tennant, Anne W., Cumberland
 *Terbush, Theron L., Washington, D. C.
 Terhune, Kathryn M., Washington, D. C.
 *Terwilliger, W. Bird, Baltimore
 Teter, Naomi R., Cumberland
 Thies, William N., Washington, D. C.
 Thomas, Bertha A., Frostburg
 *Thomas, Catherine B., Takoma Park
 Thomas, George E., Washington, D. C.
 *Thomas, Margaret R., Gaithersburg
 *Thompson, T. Manning, Washington, D. C.
 Thornton, Eugene, Worton
 Tilghman, Margaret V., Salisbury
 *Todd, Wilton R., Wingate
 *Tomlinson, Mary V., North East
 Tompkins, Margaret H., Rockville
 Toomey, Edna P., Bladensburg
 *Topfer, Hilda, Princess Anne
 Toulson, Myra W., Chestertown
 Townsend, Lawrence R., Parkville
 Trader, Mary F., Kensington
 *Trice, Evelyn B., Hurlock
 Truman, Zelma M., College Park
 *Tucker, Margaret E., Washington, D. C.
 Valle, Philip J., Baltimore
 Vansant, Anna T., Chestertown
 Vansant, Lillian H., Catonsville
 Vaughan, Alice M., Chesapeake City
 Vaught, Jeannette, Hyattsville
 Vogtman, Harry R., Cumberland
 *Wadleigh, Clarence B., Durham, N. H.
 Waesche, Harry L., Chevy Chase
 Waite, Malden D., Odenton
 Waldman, Sylvia R., Hyattsville
 Walker, Marian W., Gaithersburg
 Waller, Julia L., Salisbury
 Walmsley, John S., Jr., Baltimore
 Walsh, Ambrose J., Jr., Brentwood
 Walters, Mozelle C., Hagerstown
 Ward, Mary B., Gaithersburg
 Warehime, Vallie B., Manchester
 Waring, Elizabeth A., Annapolis
 Warner, Grenfell, Washington, D. C.
 Warthen, Albert E., Monrovia

*Watkins, Dayton O., Hyattsville
 *Watkins, Mary L., Chevy Chase
 Watkins, Mildred R., Davidsonville
 *Watkins, Wilma L., Washington Grove
 Watson, George B., Towson
 *Watt, Lois B., Washington, D. C.
 Webb, James L., Chevy Chase
 Webb, Margaret O., Hyattsville
 Webster, Sarah P., Pylesville
 Weinman, Melvin, Baltimore
 *Weis, Theo. G., Takoma Park
 Weisberg, Maurice M., Baltimore
 Wells, Elinor H., College Park
 Wells, Joan K., Washington, D. C.
 Welsh, Eleanor R., Westernport
 *Wentz, Clark H., Manchester
 *Wenzel, Marie E., Laurel
 Werner, Janet T., Catonsville
 West, William V., Chevy Chase
 Wetherby, Edith H., Welch, W. Va.
 Wheeler, Elwood L., Glyndon
 Whipple, Stanley R., Baltimore
 White, Mary G., Dickerson
 White, Ruth O., Mt. Rainier
 Whiton, Alfred C., Brentwood
 Wilcox, Annette T., Washington, D. C.
 Will, Fern F., Rockville
 Williams, Don H., Washington, D. C.
 *Williams, Edith M., Washington, D. C.
 *Williams, Helen V., Washington, D. C.
 *Williams, Loris E., Takoma Park, D. C.
 Williams, Reynold D., Sharpsburg
 *Williamson, Eleanor S., Lancaster, N. H.
 Williamson, Helen B., Washington, D. C.
 Williamson, Robert G., Washington, D. C.
 Willing, Ruth A., Bivalve
 Willingham, Patricia M., Hyattsville
 Willoughby, Lola M., Denton
 Wilson, Elinor G., Denton

*Graduate students.

Wilson, Ethel J., Washington, D. C.
 Wilson, Gladys, Cumberland
 Wilson, N. Loraine, Fulton
 Wine, Hilda K., Washington, D. C.
 *Winebrener, Miriam F., Walkersville
 *Wingate, Phillip J., Wingate
 Wink, Treva B., Manchester
 *Winnemore, Augustine E., Washington,
 D. C.
 Wintermoyer, J. Paul, Hagerstown
 Wisner, Jackson W., Rockville
 Wolf, Frances, Washington, D. C.
 Wolfe, William C., Mt. Union, Pa.
 Wolford, John L., Washington, D. C.
 Wolford, Ruth R., Cumberland
 Wonn, Virginia G., Hampstead
 Wood, Rebecca I., Rock Hall
 Woodell, John H., Baltimore
 *Worsley, Gertrude C., Silver Spring
 Wright, Philip A., Federalsburg
 Wright, Robert K., Knoxville
 Yeager, Mildred F., Laurel
 Yocum, Wilbur F., Chevy Chase
 Yoder, Elizabeth, Long Green
 Yoder, M. Merle, Towson
 *Yonkers, Bernard O., Emmitsburg
 Yonkers, Saranna W., Emmitsburg
 *Young, Dorothy O., Bethesda
 Young, Edmond G., Baltimore
 Young, Herbert S., Washington, D. C.
 Young, Irene, Silver Spring
 Young, Jerome L., Washington, D. C.
 Young, Mabel C., Hyattsville
 Zalesak, Francis J., College Park
 *Zapponi, Paschal P., Wooster, Ohio
 Zimmerman, Marian A., Washington,
 D. C.
 Zittel, Blanche A., Centreville
 Zulick, Charles M., Houtzdale, Pa.

**SUMMARY OF STUDENT ENROLLMENT
AS OF APRIL 1, 1938**

RESIDENT COLLEGIATE COURSES—ACADEMIC YEAR:

	College Park	Baltimore	Total
College of Agriculture.....	319	.....	319
College of Arts and Sciences.....	1,114	.....	1,114
School of Dentistry.....	.....	280	280
College of Education.....	362	.....	362
College of Engineering.....	359	.....	359
Graduate School.....	368	.....	368
College of Home Economics.....	180	.....	180
School of Law.....	.....	239	239
School of Medicine.....	.....	381	381
School of Nursing.....	.....	117	117
School of Pharmacy.....	.....	184	184
Total	2,702	1,201	3,903
Summer School, 1937.....	984	92	1,076
EXTENSION COURSES:			
Collegiate Credit:			
Baltimore (Industrial Education).....	227	.....	227
Subcollegiate:			
Mining (Engineering).....	198	.....	198
Industrial Education (Baltimore).....	48	.....	48
Grand Total	4,159	1,293	5,452
Duplications.....	337	77	450
Net Total	3,822	1,216	5,002

Enrollment in Short Courses and Conference of from two days to one week: Rural Women, 785; Boys' and Girls' Club, 601; Volunteer Firemen, 136; Highway Engineers, 102; Operators of Waterworks and Sewage Disposal Plants, 35; Canning Crops Conference, 400; Florists, 238; Nurserymen, 68; Garden School, 465; Parent-Teacher Conference, 163; CCC Conference, 136; Traffic Officers' Training School, 46; Ministers' Conference, 51.

GENERAL INDEX

	Page		Page
Administration		Board of Regents.....	7
board of regents.....	7	Botany	82, 231
officers of administration.....	8	Buildings	42
boards and committees (College Park).....	17	Bureau of Mines.....	43
officers of instruction (College Park).....	9	research fellowships in.....	159
officers of instruction (Baltimore).....	26	lectures	160
faculty committees (Baltimore).....	39	Business Administration	235
administrative organization	41	Calendar	4
buildings	41	Certificates, Degrees and.....	53
libraries	43	Chemical engineering	107, 154
Admission	45	research fellowships in.....	159
methods of admission.....	46	Chemistry	107, 244
undergraduate curricula	47	analytical	99, 211, 245
advanced standing	48	biological	84, 249
certificate, by	46	curriculum	106
examination, by	46	general	244
physical examinations	49	organic	246
transfer, by	48	physical	247
unclassified students	49	Chesapeake Biological Laboratory.....	339
Agents	23	Chorus	316
assistant county	23	Civil Engineering	137, 271
assistant home demonstration.....	24	Clubs, miscellaneous	64
county	23	College of Agriculture.....	66
county home demonstration.....	24	College of Arts and Sciences.....	96
Agricultural Economics	212	College of Commerce.....	122
Agricultural Engineering	76, 217	College of Education.....	132
Agricultural Education	73, 215	College of Engineering.....	145
Agriculture, College of.....	65	College of Home Economics.....	161
advisory councils	68	Commerce, College of.....	122
curricula in	70	curriculum in General Business.....	123
departments	68	curriculum in Accounting.....	124
farm practice	69	curriculum in Finance.....	125
equipment	68	curriculum in Marketing and Sales	
requirements for graduation.....	69	Administration	126
special students in agriculture.....	92	curriculum in Agricultural Economics	127
regulatory activities	94	cooperative Organization and Admin-	
State Board of.....	207	istration	128
Agronomy	76, 218	combined program in Commerce and	
Alumni	65	Law	129
Animal husbandry	78, 220	scholarship requirements	130
Applied mathematics, fellowship in.....	160	electives from other colleges.....	130
Aquiculture	338	Committees	17, 39
Art	165, 227, 297	Comparative Literature	252
Arts and Sciences, College of.....	96	County agents	23
advanced standing	97	demonstration agents	24
advisers	100	Courses of study, description of.....	211
degrees	97	Dairy Husbandry	79, 220
divisions	96	Degrees and Certificates.....	53
electives in other colleges and schools	99	Delinquent students	53
normal load	99	Dentistry, School of.....	181
requirements,		advanced standing	185
97, 98, 104, 110, 115, 117, 120		building	182
Astronomy	227	deportment	186
Athletics	42, 179	equipment	186
Bacteriology	82, 227	expenses	187
Biochemistry, plant physiology.....	234	promotion	185
Biophysics, plant	235	residence	188

GENERAL INDEX (Continued)

	Page		Page
Diamondback	65	Farm management	86, 212
Divisions, College of Arts and Sciences	90	Feed, Fertilizer, and Lime Inspection	
lower division	101	Service	208
humanities	103	Fellowships	173, 160
natural sciences	105	Five Year Combined Arts and Nursing	
social sciences	119	Curriculum	111, 201
Dormitory rules	57	Floriculture	299
Drawing	273	Foods and nutrition	163, 295
Economics	253	Forestry, State Department of	209
agricultural	212	course in	290
Education	132, 256	Fraternities and Sororities	62
history and principles	256	French	309
methods in arts and science subjects		Genetics and Statistics	87, 116, 290
(high school)	259	Geology	291
agricultural	73, 215	Geological Survey	210
arts and science	135	German	312
curricula	134	Grading system	52
degrees	134	Graduate School, The	166
commercial	138	admission	167
home economics	140, 261	council	166
industrial	262	courses	167
physical	144, 179, 265	fees	172
Educational psychology	326	fellowships and assistantships	173
Education, College of	132	registration	167
Electrical Engineering	157, 274	residence requirements	169, 171
Employment, student	59	requirements for degrees	169, 171
Engineering	148, 270	summer graduate work	168
chemical	154, 270	Greek	251
chemical engineering chemistry	155	Health Service	50
civil	156, 271	High school teachers, certification of,	
drawing	273	.....	99, 134
electrical	157, 274	History	291
general subjects	276	Historical statement	40
mechanics	276	Home Economics	161, 294
mechanical	158, 277	curricula	161
shop	279	degree	161
surveying	280	departments	161
admission requirements	148	facilities	161
bachelor degrees	149	general	162
curricula	153	Home Economics Education	140, 261
equipment	149	Honors and awards	60, 341
library	153	Horticultural State Department	208
master of science in	149	Horticulture	88, 298
professional degrees in	149	floriculture	299
English Language and Literature	280	general	298
Entomology	84, 116, 287	landscape gardening	299
Entrance	45	olericulture	89, 301
Examinations	51	pomology	89, 298
Expenses	54, 172, 187, 193, 197, 206	vegetable production	299
Extension Service	93	Hospital	50, 194
staff	21	Humanities, division of	103
Experiment Station, Agricultural	93	Industrial Education	126
staff	19	Infirmity rules	50
Experiment Station, Engineering	152	Inspection and regulatory service	208
Faculty	9, 26	Italian	314
Farm forestry	209, 290	Landscape gardening	299
		Latin	251

GENERAL INDEX (Continued)

	Page		Page
Law, The School of	190	Premedical curriculum	112
advanced standing	192	Prenursing curriculum	111
admission	191	Princess Anne College	42
combined program of study	192	Psychology	326
fees and expenses	193	Publications, student	65
Librarians (College Park)	16	R. O. T. C.	49, 175, 308, 355, 356
Librarians (Baltimore)	38	Refunds	57
Libraries	44	Regimental Organization	360
Library Science	301	Register of students	362
Livestock Sanitary Service	208	Registration, date of	4, 5
Location of the University	42	penalty for late	56, 187
Lower division	101	Regulations, grades, degrees	51
Mathematics	301	degrees and certificates	53
Mechanical Engineering	158, 277	elimination of delinquent students	53
Mechanics	276	examinations and grades	51
Medals and prizes	60, 354	regulation of studies	51
Medicine, School of	194	reports	53
admission	195	junior standing	53
clinical facilities	194	Religious influences	64
dispensaries and laboratories	195	Reserve Officers' Training Corps,	
expenses	197	.....	49, 175, 308, 355, 356
prizes and scholarships	195	Residence and Non-Residence	58
Metallurgical division, Bureau of Mines,		Room reservation	57
fellowships in	160	Rules and Regulations, dormitories	57
Microchemistry (plant)	235	Rural Life	73, 215
Military Science and Tactics	49, 175, 308	Seed Inspection Service	209
Modern Languages, Courses in	309	Social Sciences, division of	110
Music	316	Societies	63
Musical Organizations	316	honorary fraternities	63
Natural Sciences, division of	105	fraternities and sororities	64
Non-metals division, Bureau of Mines,		miscellaneous clubs and societies	64
fellowships in	160	Sociology	328
Nursing, School of	198	Soils	78, 218
admission	199	Solomons Island research	339
combined program	111, 201	Sororities	64
expenses	200	Spanish	314
hours on duty	199	Speech	333
programs offered	198	State Board of Agriculture	207
Officers, administrative	8	Statistics, courses in	290
of instruction	9, 26	Student	
Old Line	65	employment	59
Olericulture	89	government	62
Pharmacy, School of	203	Grange	64
admission	204	organization and activities	62
expenses	206	publications	65
location	203	Summer camps	177
Phi Kappa Phi	63, 353	Summer session	174
Philosophy	317	credits and certificates	174
Physical Education	42, 49, 144, 179, 265	graduate work	168, 174
Physical examinations	50	terms of admission	174
Physical sciences, division of	105	Surveying	280
Physics	108, 318	Terrapin	65
Plant pathology	115, 233	Textiles and clothing	165, 294
Plant physiology	115, 234	Uniforms, military	176
Political Science	321	Vegetable production	299
Pomology	89	Weather Service, State	209
Poultry husbandry	90, 324	Withdrawals	57
Predental curriculum	114	Zoology	116, 336

Any further information desired concerning the University
of Maryland will be furnished upon application to

THE DIRECTOR OF ADMISSIONS,

College Park, Maryland.

