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UNIVERSITY OF MARYLAND

Vol. 27 APRIL 1930 No. 4

CATALOGUE
NUMBER FOR THE SESSIONS OF
1930-1931

Containing general information concerning the University
Announcements for the Scholastic Year 1930-31
and Records of 1929-30

Issued monthly by the University of Maryland at College Park, Md.,
as second-class matter. under Act of Congress of August 24, 1912.

Calendar for 1930, 1931, 1932

1930

JULY

S	M	T	W	T	F	S
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1931

JANUARY

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FEBRUARY

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1932

JANUARY

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Facts, conditions, and personnel herein set forth are as existing at the time of publication, April, 1930.

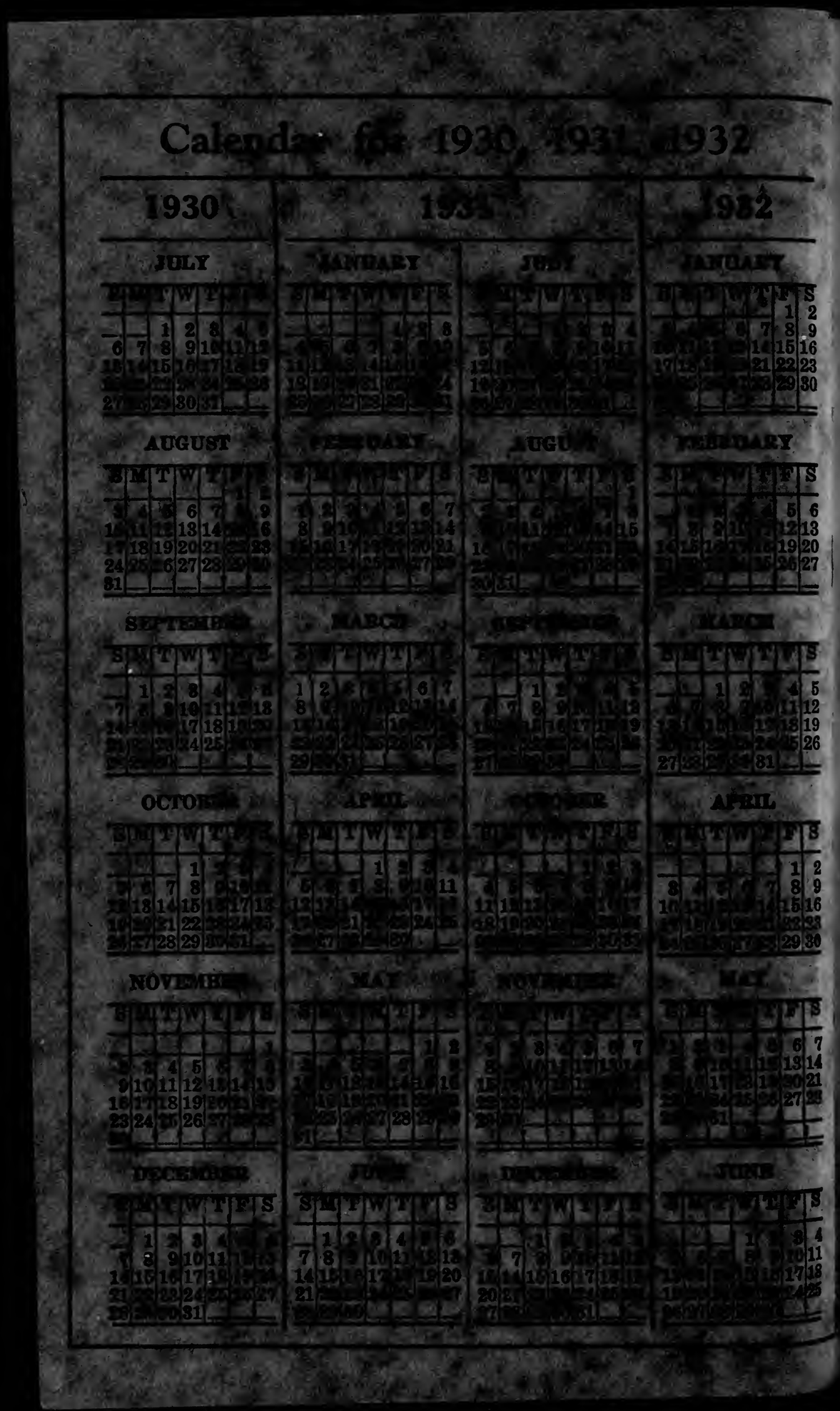

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Table of Contents

UNIVERSITY CALENDAR

1930-31

COLLEGE PARK

First Semester

1930.		
Sept. 16-17	Tuesday-Wednesday	Registration for Freshmen.
Sept. 18	Thursday	Upper Classmen complete registration.
Sept. 19	Friday	Instruction for first semester begins.
Sept. 25	Thursday	Last day to change registration or to file schedule card without fine.
Nov. 27	Thursday	Thanksgiving Day. Holiday.
Dec. 13	Saturday, 12.10 p.m.	Christmas Recess begins.
1931.		
Jan. 5	Monday, 8.20 a.m.	Christmas Recess ends.
Jan. 24-31	Saturday-Saturday	First semester examinations.

Second Semester

Jan. 19-23	Monday-Friday	Registration for second semester.
Feb. 2	Monday	Last day to complete registration for second semester without payment of late registration fee.
Feb. 3	Tuesday, 8.20 a.m.	Instruction for second semester begins.
Feb. 9	Monday	Last day to change registration or to file schedule card without fine.
Feb. 23	Monday	Washington's Birthday. Holiday.
Mar. 25	Wednesday	Observance of Maryland Day.
Mar. 31-April 8	Tuesday, 4.10 P. M. Wednesday, 8.20 a.m.	Easter Recess.
May 18-22	Monday-Friday	Registration for first semester, 1931-32.
May 27-June 3	Wednesday-Wednesday	Second semester examinations for Seniors.
May 30	Saturday	Memorial Day. Holiday.
June 1-6	Monday-Saturday	Second semester examinations.
June 7	Sunday, 11 a.m.	Baccalaureate Sermon.
June 8	Monday	Class Day.
June 9	Tuesday, 11 a.m.	Commencement.

Summer Term

June 15-20	Monday-Saturday	Rural Women's Short Course.
June 24	Wednesday	Summer School begins.
Aug. 4	Tuesday	Summer School ends.
Aug. 6-11	Thursday-Tuesday	Boys' and Girls' Club Week.

BALTIMORE (PROFESSIONAL SCHOOLS)

First Semester

1930.		
Sept. 29	Monday	* Registration begins (see School bulletin for procedure).
Sept. 29	Monday	Instruction begins with the first scheduled period.
Oct. 4	Saturday	Last day to register without paying fine of $5.00.
Nov. 27	Thursday	Thanksgiving.
Dec. 20	Saturday	Christmas recess begins after the last scheduled period.
1931.		
Jan. 5	Monday	Instruction resumed with the first scheduled period.
Jan. 31	Saturday	First semester ends after the last scheduled period.

Second Semester

Feb. 2	Monday	* Registration begins (see School bulletin for procedure).
Feb. 2	Monday	Instruction begins with the first scheduled period.
Feb. 7	Saturday	Last day to register without paying fine of $5.00.
Feb. 23	Monday	Washington's Birthday. Holiday.
Apr. 2	Thursday	Easter recess begins after the last scheduled period.
Apr. 7	Tuesday	Instruction resumed with the first scheduled period.
June 6	Saturday	Commencement.

* The offices of the registrar and comptroller are open daily (except Saturday) from 9:00 A. M. to 5:00 P. M. Saturday, 9:00 A. M. to 1:00 P. M.

BOARD OF REGENTS

SAMUEL M. SHOEMAKER, Chairman 1924-1933
Eccleston, Baltimore County

JOHN M. DENNIS, Treasurer 1923-1932
Union Trust Co., Baltimore

DR. FRANK J. GOODNOW 1922-1931
911 Poplar Hill Road, Baltimore

JOHN E. RAINE 1921-1930
1200 St. Paul Street, Baltimore

CHARLES C. GELDER 1929-1938
Princess Anne, Somerset County

DR. W. W. SKINNER, Secretary 1927-1936
Kensington, Montgomery County

E. BROOKE LEE (Appointed 1927) 1926-1935
Silver Spring, Montgomery County

HENRY HOLZAPFEL, JR. 1925-1934
Hagerstown, Washington County

GEORGE M. SHRIVER 1928-1933
Old Court Road, Baltimore

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GEORGE M. SHRIVER — JOHN M. DENNIS

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E. BROOKE LEE — DR. W. W. SKINNER

EXPERIMENT STATION AND INVESTIGATIONAL WORK

HENRY HOLZAPFEL, JR., Chairman

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EXTENSION AND DEMONSTRATION WORK

GEORGE M. SHRIVER, Chairman

E. BROOKE LEE — JOHN E. RAINE

INSPECTION AND CONTROL WORK

JOHN M. DENNIS, Chairman

HENRY HOLZAPFEL, JR. — CHARLES C. GELDER

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RAYMOND A. PEARSON, M.S., D. Agr., LL.D., President.

H. C. BYRD, B.S., Assistant to the President; Director of Athletics.

H. J. PATTERSON, D.Sc., Director of the Agricultural Experiment Station; Dean of the College of Agriculture.

T. B. SYMONS, M.S., D.Agr., Director of the Extension Service.

A. N. JOHNSON, S.B., D. Eng., Dean of the College of Engineering.

T. H. TALIAFERRO, C.E., Ph.D., Dean of the College of Arts and Sciences.

J. M. H. ROWLAND, M.D., Dean of the School of Medicine.

HENRY D. HARLAN, LL.D., Dean of the School of Law.

ROBERT H. FREEMAN, A.M., LL.B., Assistant Dean of the School of Law.

E. FRANK KELLY, Phar.D., Advisory Dean of the School of Pharmacy.

ANDREW G. DUMEZ, Ph.D., Dean of the School of Pharmacy.

T. O. HEATWOLE, M.D., D.D.S., Secretary of the Baltimore Schools.

J. BEN ROBINSON, D.D.S., Dean of the School of Dentistry.

W. S. SMALL, Ph.D., Dean of the College of Education.

M. MARIE MOUNT, M.A., Dean of the College of Home Economics.

C. O. APPLEMAN, Ph.D., Dean of the Graduate School.

ADELE H. STAMP, M.A., Dean of Women.

R. S. LYTLE, Major Inf., Professor of Military Science and Tactics.

MAUDE F. MCKENNEY, Financial Secretary.

W. M. HILLEGEIST, Registrar.

ALMA H. PREINKERT, M.A., Assistant Registrar.

LEONARD HAYS, M.D., University Physician.

H. L. CRISP, M.M.E., Superintendent of Buildings.

T. A. HUTTON, A.B., Purchasing Agent and Manager of Students' Supply Store.

GRACE BARNES, B.S., B.L.S., Librarian (College Park).

RUTH LEE BRISCOE (MRS.), Librarian (Baltimore).

OFFICERS OF INSTRUCTION

For the Year 1929-1930

At College Park

PROFESSORS

C. O. APPLEMAN, Ph.D., Professor of Plant Physiology and Bio-Chemistry, Dean of the Graduate School.

E. C. AUCHTER, Ph.D., Professor of Horticulture.

GRACE BARNES, B.S., B.L.S., Librarian.

F. W. BESLEY, Ph.D., Professor of Farm Forestry, State Forester.

V. R. BOSWELL, Ph.D., Professor of Olericulture.

L. B. BROUGHTON, Ph.D., Professor of Chemistry, Head of the Department of Chemistry, Chairman of the Pre-Medical Committee.

O. C. BRUCE, M.S.,, Professor of Soil Technology.

R. W. CARPENTER, A.B., LL.B., Professor of Agricultural Engineering and Lecturer in Law.

E. N. CORY, Ph.D., Professor of Entomology, State Entomologist.

H. F. COTTERMAN, B.S., M.A., Professor of Agricultural Education and Rural Sociology.

MYRON CREESE, B.S., E.E., Professor of Electrical Engineering.

HAYES BAKER-CROTHERS, Ph.D., Professor of History and Political Science.

S. H. DEVAULT, A.M., Professor of Agricultural Economics.

NATHAN L. DRAKE, Ph.D., Professor of Organic Chemistry.

C. G. EICHLIN, A.B., M.S., Professor of Physics.

F. W. GEISE, M.S., Professor of Olericulture.

HARRY GWINNER, M.E., Professor of Engineering Mathematics.

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A. N. JOHNSON, B.S., D.Eng.,Professor of Highway Engineering, Director of Engineering Research, Dean of the College of Engineering.

W. B. KEMP, Ph.D., Professor of Genetics and Agronomy.

B. T. LELAND, B.S., M.A., Professor of Industrial Education.

H. B. MCDONNELL, M. S., M.D., Professor of Agricultural Chemistry.

FRIEDA M. 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.

K. J. MORRIS, A.M., Administrative Coordinator of Practice Teaching.

M. MARIE MOUNT, M.A., Professor of Home and Institutional 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 Systematic Botany and Mycology.

H. J. PATTERSON, D.Sc., Director of the Agricultural Experiment Station, Dean of the College of Agriculture.

E. M. PICKENS, D.V.M., A.M., Professor of Bacteriology, Animal Pathologist of the Biological Laboratory and Live Stock Sanitary Service.

C. J. PIERSON, A.M., Professor of Zoology.

R. C. REED, Ph.B., D.V.M., Professor of Animal Pathology.

C. E. RESSER, Ph.D., Lecturer in Engineering Geology.

C. S. RICHARDSON, A.M., Professor of Public Speaking and Extension Education.

MANDEL SHERMAN, Ph.D., M.D., Collaborating Professor of Child Psychology.

W. S. SMALL, Ph.D., Professor of Education, Dean of the College of Education, Director of the Summer School.

THOS. H. SPENCE, A.M., Professor of Classical Languages and Literature, Dean Emeritus of the College of Arts and Sciences.

J. W. SPROWLS, Ph.D., Professor of Educational Psychology.

ADELE H. STAMP, M.A., Dean of Women.

S. S. STEINBERG, B.E., C.E., Professor of Civil Engineering.

T. H. TALIAFERRO, C.E., Ph.D., Professor of Mathematics, Dean of the College of Arts and Sciences.

W. T. L. TALIAFERRO, A.B., D.Sc., Professor of Farm Management.

C. E. TEMPLE, M.A., Professor of Plant Pathology, State Plant Pathologist.

CHARLES THOM, Ph.D., Lecturer in Soil Micro-Biology.

A. S. THURSTON, M.S., Professor of Floriculture and Landscape Gardening.

R. V. TRUITT, PhD., Professor of Aquiculture.

R. H. WAITE, B.S., Professor of Poultry Husbandry.

A. E. ZUCKER, Ph.D., Professor of Modern Languages and Comparative Literature.

ASSOCIATE PROFESSORS

HARRY A. DEFERRARI, Ph.D., Associate Professor of Modern Languages.

CHARLES B. HALE, Ph.D., Associate Professor of English.

MALCOLM HARING, Ph.D., Associate Professor of Chemistry.

SUSAN EMOLYN HARMAN, Ph.D., Associate Professor of English.

E. S. JOHNSTON, Ph.D., Associate Professor of Plant Physiology.

C. F. KRAMER, A.M., Associate Professor of Modern Languages.

G. J. SCHULZ, A.B., Lecturer in Political Science.

CLARIBEL P. WELSH, B.S., M.A., Associate Professor of Foods.

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R. C. WILEY, Ph.D., Associate Professor of Analytical Chemistry.

ASSISTANT PROFESSORS

WAYLAND S. BAILEY, M.S., Assistant Professor of Mechanical Engineering.

EDWARD H. BOWES, 1st Lieut. Inf., Assistant Professor of Military Science and Tactics.

C. M. CONRAD, Ph.D., Assistant Professor of Plant Physiology and Biochemistry.

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W. E. HUNT, M.S., Assistant Professor of Animal Husbandry.
L. W. INGHAM, M.S., Assistant Professor of Dairy Production.
WALTER H. JAEGER, Ph.D., Assistant Professor of History.
V. WEBSTER JOHNSON, Ph.M., Assistant Professor of Economics, Acting Head of Department of Economics and Sociology.
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PEARL MCCONNELL, M.A., Assistant Professor of Zoology.
R. C. MUNKWITZ, M.S., Assistant Professor of Market Milk.
ELEANOR L. MURPHY, B.S., Assistant Professor of Home Management.
L. J. POELMA, D.V.M., M.S., Assistant Professor of Bacteriology.
GEO. D. QUIGLEY, B.S., Assistant Professor of Poultry Husbandry.
RALPH RUSSELL, M.S., Assistant Professor of Agricultural Economics.
J. H. SCHAD, M.A., Assistant Professor of Mathematics (Baltimore).
R. H. SKELTON, Ph.B., C.E., Assistant Professor of Civil Engineering.
J. T. SPANN, B.S., Assistant Professor of Mathematics.
E. B. STARKEY, Ph.D., Assistant Professor of Chemistry (Baltimore).
P. P. THOMAS, Ph.D., Assistant Professor of Soil Technology.
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R. S. VANDEN BOSCHE, Ph.D., Assistant Professor of Inorganic Chemistry. (Baltimore).
M. F. WELSH, D.V.M., M.S., Assistant Professor of Bacteriology.
R. W. YOUNG, A.B., 1st Lieut. Inf., Assistant Professor of Military Science and Tactics.

INSTRUCTORS

GEO. F. ALRICH, M.S., E.E., Instructor in Mathematics.
E. S. BELLMAN, A.M., Instructor in Sociology.
GERTRUDE BERGMAN, A.B., Instructor in Library Science; Cataloguer.
J. B. BLANDFORD, Instructor in Horticulture, Horticultural Superintendent.
HENRY BRECHBILL, M.A., Instructor in Education.
SUMNER BURHOE, M.S., Instructor in Zoology.
O. C. CLARK, B.S., Instructor in Physics.
EUGENE B. DANIELS, M.A., M.F.S., Instructor in Economics and Sociology.
ROBERT T. FITZHUGH, M.A., Instructor in English.
GARDNER H. FOLEY, M.A., Instructor in English (Baltimore).

GEORGE W. FOGG, M.A., Instructor in Library Science; Reference and Loan Librarian.
B. L. GOODYEAR, Instructor in Music.
EARL HENDRICKS, Staff Sergeant, Instructor in Military Science and Tactics.
L. C. HUTSON, Instructor in Mining Extension.
WM. H. MCMANUS, Warrant Officer, Instructor in Military Science and Tactics.
ARTHUR C. PARSONS, A.M., Instructor in Modern Languages (Baltimore).
VIRGINIA PEASELY, B.S., Instructor in Physical Education.
MELVIN A. PITTMAN, M.S., Instructor in Physics (Baltimore).
M. A. PYLE, B.S., Instructor in Civil Engineering.
J. THOMAS PYLES, M.A., Instructor in English (Baltimore).
GRACE RAEZER, R.N., Instructor in Home Nursing and Hygiene.
ADELIA E. ROSASCO, A.B., Instructor in Education and Critic Teacher.
H. H. ROSEBERRY, B.S., Instructor in Physics (Baltimore).
H. B. SHIPLEY, Instructor in Physical Education.
C. L. SMITH, M.S., Instructor in Plant Physiology.
KATHLEEN M. SMITH, A.B., M.E., Instructor in Education and Critic Teacher.
J. M. SNYDER, B.S., Instructor in Soil Technology.
R. M. WATKINS, M.A., Instructor in Public Speaking.
MRS. F. H. WESTNEY, B.S., Instructor in Textiles and Clothing.
HELEN WILCOX, A.B., Instructor in Modern Languages.
LELAND G. WORTHINGTON, B.S., Instructor in Agricultural Education.

ASSISTANTS

HESTER BEALL, Assistant in Public Speaking.
JESSIE BLAISDELL, Assistant in Music.
V. E. BROWN, M.S., Assistant in Zoology (Baltimore).
NELLIE BUCKEY, B.S., Assistant in Home Economics Education.
ADELAIDE C. CLOUGH, A.B., Assistant Critic Teacher.
GILES B. COOKE, M.S., Assistant in Chemistry.
C. L. EVERSON, D.V.M., Assistant in Bacteriology.
J. E. FABER, JR., M.S., Assistant in Bacteriology.
W. J. HART, M.S., Assistant in Agricultural Economics.
DONALD HENNICK, Assistant in Mechanical Engineering.
AUDREY KILLIAM, B.S., Assistant in Home Economics.
H. H. KAVELER, M.S., Assistant in Chemistry.
EDMUND E. MILLER, B.A., Assistant in Modern Languages (Baltimore).
W. K. MURRILL, B.A., Assistant in Mathematics (Baltimore).
BERNICE F. PIERSON, B.S., Assistant in Zoology (Baltimore).
ENGELBERT SCHMIDT, B.S., Assistant in Soils and Crops.
OTTO SIEBENEICHEN, Band Leader.
D. H. WHEELER, M.S., Assistant in Chemistry.
KATE WHITE, Assistant in Library.
R. C. YATES, M.A., Assistant in Mathematics (Baltimore).

1929-1930

GRADUATE ASSISTANTS

M. T. Bartram	Bacteriology
H. E. Besley	Agricultural Engineering
F. Y. Brackbill	Chemistry (Baltimore)
E. S. Degman	Horticulture
L. P. Ditman	Entomology
T. F. Dozois	Bacteriology
J. B. Edmond	Horticulture
F. H. Evans	Chemistry
L. A. Fletcher	Horticulture
H. W. Gilbert	Chemistry
C. Graham	Entomology
A. B. Hamilton	Agricultural Economics
W. T. Henerey	Entomology
P. R. Henson	Genetics and Agronomy
J. W. Heuberger	Botany
M. E. Kuhnle	English
W. A. Matthews	Horticulture
P. E. Nystrom	Agricultural Economics
M. W. Parker	Botany
D. I. Purdy	Bacteriology
P. A. Raper	Agricultural Economics
H. C. Reitz	Chemistry
C. A. Reneger	Soils
R. W. Riemenschneider	Chemistry
A. E. Rosasco	Modern Languages
J. E. Schueler	Agronomy
M. Schweizer	Modern Languages
F. T. Simonds	Botany
T. B. Smith	Chemistry
K. G. Stoner	History
W. C. Supplee	Agricultural Chemistry
W. B. Thomas	English (Baltimore)
G. S. Weiland	Agronomy
J. H. Weinberger	Horticulture
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Marvin J. Andrews, Ph.G., Ph.C., B.S., Assistant Professor of Pharmacy and Dispensing.
Frances M. Branley, R.N., Assistant Superintendent of Nurses.
Arthur H. Bryan, B.S., V.M.D., Assistant Professor of Bacteriology.
D. Edgar Fay, M.D., Assistant Professor of Physical Diagnosis.
Maurice Feldman, M.D., Assistant Professor of Gastro-Enterology.
Grayson W. Gaver, D.D.S., Assistant Professor of Prosthetic Dentistry.
C. C. Habliston, M.D., Assistant Professor of Medicine.
John G. Huck, M.D., Assistant Professor of Medicine.
Albert Jaffe, M.D., Assistant Professor of Pediatrics.
S. Lloyd Johnson, A.B., M.D., Assistant Professor of Medicine.
George C. Karn, D.D.S., Assistant Professor of Radiodontia.
L. A. M. Krause, 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 and Superintendent of Clinic.
Norval H. McDonald, D.D.S., Assistant Professor of Anaesthesia.
George McLean, M.D., Assistant Professor of Medicine.
Clarence E. Macke, M.D., Assistant Professor of Pediatrics.
William K. Morrill, A.B., A.M., Ph.D., Assistant Professor of Mathmatics.
Walter L. Oggesen, D.D.S., Assistant Professor of Crown and Bridge.

H. R. Peters, M.D., Assistant Professor of Medicine.
A. W. Richeson, Ph.D., Assistant Professor of Mathematics.
H. Hewell Roseberry, A.M., Assistant Professor of Physics.
J. H. Schad, A.M., Assistant Professor of Mathematics.
Edgar B. Starkey, A.B., M.S., Ph.D., Assistant Professor of Organic Chemistry.
A. Allen Sussman, A.B., D.D.S., M.D., Assistant Professor of Anatomy.
Guy P. Thompson, A.B., M.S., Assistant Professor of Zoology.
John Traband, M.D., Assistant Professor of Pediatrics.
E. G. Vanden Bosche, A.B., M.S., Ph.D., Assistant Professor of Inorganic and Physical Chemistry.
J. Herbert Wilkerson, M.D., Assistant Professor of Anatomy.
Robert B. Wright, M.D., Assistant Professor of Pathology.

LECTURERS

Alfred Bagby, Jr., A.B., LL.B., Ph.D., Lecturer in Testamentary Law.
Carlyle Barton, A.B., LL.B., Lecturer in Partnership.
Forrest Bramble, LL.B., Lecturer in Bills and Notes.
J. Wallace Bryan, A.B., Ph.D., LL.B., Lecturer in Pleadings and Carriers.
James T. Carter, A.B., LL.B., Ph.D., Lecturer in Legal Bibliography.
W. Calvin Chestnut, A.B., LL.B., Lecturer in Federal Procedure and Insurance.
Walter L. Clark., LL.B., Lecturer in Evidence.
James U. Dennis, LL.B., Lecturer in Personal Property.
Edwin T. Dickerson, A.B., A.M., LL.B., Lecturer in Contracts.
Eli Frank, A.B., LL.B., Lecturer in Torts.
Matthew Gault, Litt.B., LL.B., Lecturer in Domestic Relations.
George E. Hardy, Jr., A.B., D.D.S., Lecturer in Comparative Dental Anatomy.
T. O. Heatwole, M.D., D.D.S., D.Sc., Secretary of the Baltimore Schools, Lecturer in Ethics and Jurisprudence.
William G. Helfrich, A.B., LL.B., Lecturer in Domestic Relations.
Arthur L. Jackson, LL.B., Lecturer in Conflict of Laws.
Richard C. Leonard, D.D.S., Lecturer in Oral Hygiene and Preventive Dentistry.
John M. McFall, A.B., A.M., LL.B., Lecturer in Suretyship and Insurance.
Emory H. Niles, A.B., B.A., (Jurisp.), B.C.L. (Exam.), LL.B., Lecturer in Admiralty.
Eugene O'Dunne, A.M., LL.B., Lecturer in Criminal Law.
G. Ridgley Sappington, LL.B., Lecturer in Practice in State Courts, and Practice Court.
Joseph N. Ulman, A.B., A.M., Lecturer in Sales.
R. Dorsey Watkins, A.B., LL.B., Ph.D., Lecturer in Torts.

ASSOCIATES

John R. Abercrombie, A.B., M.D., Associate in Dermatology.
Franklin B. Anderson, M.D., Associate in Diseases of the Throat and Nose.
Howard E. Ashbury, M.D., Associate in Roentgenology.
Leo Brady, M.D., Associate in Gynecology.
H. M. Bubert, M.D., Associate in Medicine and Instructor in Pathology.
William H. Daniels, M.D., Associate in Orthopedic Surgery.
Monte Edwards, M.D., Associate in Diseases of the Rectum and Colon.
H. M. Foster, M.D., Associate in Surgery.
Leon Freedom, M.D., Associate in Neurology and Instructor in Pathology.
Thomas K. Galvin, M.D., Associate in Gynecology.
W. F. Geyer, M.D., Associate in Pediatrics.
Samuel Glick, M.D., Associate in Pediatrics.
Harris Goldman, M.D., Associate in Genito-Urinary Surgery.
Albert E. Goldstein, M.D., Associate in Pathology.
M. J. Hanna,, M.D., Associate in Surgery.
O. G. Harne, A.B., Associate in Physiology.
E. H. Hayward, M.D., Associate in Surgery.
Lewis B. Hill, M.D., Associate in Psychiatry.
C. F. Horine, M.D., Associate in Surgery.
Clewell Howell, M.D., Associate in Pediatrics.
J. M. Hundley, Jr., M.D., Associate in Gynecology.
Jos. I. Kemler, M.D., Associate in Ophthalmology.
Raymond Lenhard, A.B., M.D., Associate in Orthopedic Surgery.
W. S. Love, Jr., M.D., Associate in Medicine and Instructor in Pathology.
Walter C. Merkle, M.D., Associate in Pathology.
Zachariah Morgan, M.D., Associate in Gastro-Enterology.
Samuel W. Moore, D.D.S., Associate in Anæsthesia.
John G. Murray, Jr., M.D., Associate in Obstetrics.
Emil Novak, M.D., Associate in Obstetrics.
M. A. Novey, A.B., M.D., Associate in Obstetrics and Instructor in Pathology.
Frank N. Ogden, M.D., Associate in Biological Chemistry.
D. J. Pessagno, M.D., Associate in Surgery.
J. G. M. Reese, M.D., Associate in Obstetrics.
C. A. Reifschneider, M.D., Associate in Surgery.
Harry L. Rogers, M.D., Associate in Orthopedic Surgery.
Emil G. Schmidt, Ph.D., Associate in Biological Chemistry.
Joseph Sindler, M.D., Associate in Gastro-Enterology.
E. P. Smith, M.D., Associate in Obstetrics.
George A. Strauss, Jr., M.D., Associate in Gynecology.

A. Allen Sussman, M.D., Associate in Medicine and Instructor in Pathology.
W. J. Todd, M.D., Associate in Pediatrics.
R. G. Willse, M.D., Associate in Gynecology.
A. H. Wood, M.D., Associate in Genito-Urinary Surgery.

INSTRUCTORS

Benjamin Abeshouse, M.D., Pathology.
William V. Adair, D.D.S., Clinical Operative Dentistry.
Elizabeth Aitkenhead, R.N., Surgical Technique for Nurses and Supervisor of Operating Pavilion.
W. A. Anderson, D.D.S., M.D., Practical Anatomy.
John Conrad Bauer, Ph.G., B.S., Chemistry.
Jose Bernardini, D.D.S., Clinical Operative Dentistry.
H. F. Bongardt, M.D., Surgery.
Balthis A. Browning, D.D.S., Clinical Operative Dentistry.
Henry F. Buettner, M.D., Bacteriology.
W. B. Clemson, D.D.S., Orthodontia Technics.
Miriam Connelly, Dietetics.
Charles C. Coward, D.D.S., Dental Anatomy Technics.
David G. Danforth, D.D.S., Clinical Operative Dentistry.
Frederick B. Dart, M.D., Pediatrics.
N. J. Davidov, M.D., Gastro-Enterology.
P. A. Deems, D.D.S., Clinical Operative Dentistry.
Brice M. Dorsey, D.D.S., Clinical Exodontia and Radiodontia.
J. S. Eastland, M.D., Medicine.
Meyer Eggnatz, D.D.S., Orthodontia Technics.
V. L. Ellicott, M.D., Hygiene and Public Health.
Francis Ellis, A.B., M.D., Dermatology.
J. J. Erwin, M.D., Obstetrics.
L. K. Fargo, M.D., Genito-Urinary Diseases.
A. H. Finkelstein, M.D., Pediatrics.
Eugene L. Flippin, M.D., Roentgenology.
Gardner H. Foley, A.M., English.
Wetherbee Fort, M.D., Medicine.
Joseph D. Fusco, D.D.S., Dental Technics.
Joseph E. Gately, M.D., Dermatology.
Moses Gellman, M.D., Orthopedic Surgery.
M. G. Gichner, M.D., Medicine.
Harry Goldsmith, M.D., Psychiatry.
Samuel W. Goldstein, Ph.G., Ph.C., B.S., Chemistry.
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Karl F. Grempler, D.D.S., Operative Technics.
Hubert Gurley, M.D., Practical Anatomy.
E. E. Hachman, D.D.S., Practical Anatomy.
E. W. Hanrahan, A.B., M.D., Surgery.

John M. Haynes, A.B., A.M., Pharmacology.
R. M. Hening, M.D., Pediatrics.
Robert Hodes, M.D., Neurology.
Lillie Hoke, R.N., Nursing.
Frank Hurst, D.D.S., Dental Technics.
Orville C. Hurst, D.D.S., Prosthetic Technics.
Conrad L. Inman, D.D.S., Anaesthesia.
W. R. Johnson, M.D., Surgery and Pathology.
Louis E. Kayne, D.D.S., Physiological Chemistry.
F. X. Kearney, M.D., Surgery.
M. Koppleman, M.D., Gastro-Enterology.
George S. Koshi, D.D.S., Clinical Ceramics and Crown and Bridge.
Marie Kovner, M.D., Pediatrics.
K. B. Legge, M.D., Genito-Urinary Diseases.
Isadore I. Levy, M.D., Gastro-Enterology.
John F. Lutz, M.D., Histology.
R. F. McKenzie, M.D., Diseases of Throat and Nose.
William F. Martin, D.D.S., Orthodontia Technics.
William Michel, M.D., Medicine.
L. J. Millan, M.D., Genito-Urinary Diseases.
C. Paul Miller, D.D.S., Clinical Prosthetic Dentistry.
Clement R. Monroe, M.D., Orthopedic Surgery.
Mayo B. Mott, D.D.S., Clinical Operative Dentistry.
Ruth Musser, Pharmacology.
F. S. Orem, M.D., Pediatrics.
Arthur C. Parsons, A.B., A.M., Modern Languages.
Grace Pearson, R.N., Social Service.
J. A. F. Pfeiffer, M.D., Bacteriology.
George J. Phillips, D.D.S., Prosthetic Technics.
Melvin A. Pittman, B.S., Physics.
Samuel P. Platt, Technical Drawing.
M. N. Putterman, M.D., Pediatrics.
J. Thomas Pyles, A.B., A.M., English.
James E. Pyott, D.D.S., Crown and Bridge Technics.
W. G. Queen, M.D., Anaesthesia.
I. O. Ridgley, M.D., Surgery.
H. Hewell Roseberry, B.S., Physics.
Nathan Scheer, D.D.S., Clinical Operative Dentistry.
Charles Scheidt, D.D.S., Prosthetic Technics.
William Schuman, M.D., Practical Anatomy.
Henry Sheppard, M.D., Medicine.
Isadore A. Siegel, A.B., M.D., Obstetrics.
W. A. Simpson, A.B., M.D., Orthopedic Surgery.
Frank A. Slama, Ph.G., Ph.C., B.S., Botany and Pharmacognosy.
William A. Strauss, M.D., Medicine.
M. G. Tull, M.D., Hygiene and Public Health.
C. Gordon Warner, M.D., Pathology.
Clifford Lee Wilmoth, A.B., M.D., Orthopedic Surgery.
Helen Wright, R.N., Nursing.

ASSISTANTS

T. B. Aycock, M.D., Surgery and Anatomy.
Nathaniel Beck, M.D., Medicine.
Alice Bennett, R.N., Night Supervisor.
Carl Benson, M.D., Medicine.
F. Y. Brackbill, B.S., Chemistry.
V. E. Brown, B.S., M.S., Zoology.
A. V. Buchness, M.D., Surgery.
T. Terry Burger, M.D., Pediatrics.
M. Paul Byerly, M.D., Pediatrics.
Ruth F. Carr, B.S., Biological Chemistry.
H. T. Collenberg, M.D., Genito-Urinary Diseases.
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S. H. Culver, M.D., Surgery.
Justin Deal, Ph.G., Pharmacy.
S. Demarco, M.D., Surgery.
William Emrich, M.D., Genito-Urinary Diseases.
S. C. Feldman, M.D., Pediatrics.
Frank H. Figge, B.S., Anatomy.
G. A. Fritz, M.D., Surgery.
W. R. Geraghty, M.D., Surgery.
Henry Ginsberg, M.D., Pediatrics.
Donald C. Grove, Ph.G., Chemistry.
Z. V. Hooper, M.D., Gastro-Enterology.
J. Hulla, M.D., Histology.
Casimer T. Ichniowski, Ph.G., Pharmacology and Therapeutics.
Robert W. Johnson, M.D., Surgery and Histology.
Walter B. Johnson, M.D., Pediatrics.
H. C. Knapp, M.D., Genito-Urinary Diseases.
L. T. Lavy, M.D., Pediatrics.
H. E. Levin, M.D., Bacteriology.
H. B. McElwain, M.D., Surgery.
Hugh B. McNally, Ph.G., Pharmacy.
L. Lavan Manchey, Ph.G., Chemistry.
Clyde N. Marvel, M.D., Surgery.
I. H. Maseritz, M.D., Orthopedic Surgery.
Benjamin Miller, M.D., Pediatrics.
Edmund E. Miller, A.B., Modern Languages.
Dwight Mohr, M.D., Surgery.
A. C. Monninger, M.D., Dermatology.
W. K. Murrill, B.A., Mathematics.
James W. Nelson, M.D., Histology.
John A. O'Connor, M.D., Surgery.
J. G. Onnen, M.D., Surgery.
Bernice F. Pierson, B.S., Zoology.
Joseph Pokorney, M.D., Histology.

George H. Rumberg, M.D., Pathology.
A. Scagnetti, M.D., Medicine.
W. T. Schmitz, M.D., Pediatrics.
Joseph A. Senger, Ph.G., Pharmacy.
Maurice Shamer, M.D., Obstetrics.
Emanuel V. Shulman, Ph.G., Ph.C., B.S., Botany and Pharmacognosy.
F. A. Sigrist, M.D., Surgery.
Henry C. Smith, M.D., Medicine.
R. Hooper Smith, M.D., Medicine.
Aubrey C. Smoot, M.D., Gastro-Enterology.
Karl J. Steinmuller, A.B., M.D., Surgery.
E. V. Teagarden, M.D., Pediatrics
David Tenner, M.D., Medicine.
W. B. Thomas, A.B., English.
T. J. Toughey, M.D., Surgery.
F. S. Waesche, M.D., Medicine.
W. W. Walker, M.D., Surgery.
H. L. Wheeler, M.D., Surgery.
Thomas C. Wolfe, M.D., Medicine.
W. H. Woody, M.D., Medicine.

FACULTY COMMITTEES

At Baltimore

LIBRARY

(Medicine) Doctors Lynn, Friedenwald, Cohen, and Wylie; (Dentistry) Doctors Gaver, Aisenberg, and McDonald; (Pharmacy) Mr. Plitt and Miss Cole; (Law) Messrs. Sappington and Freeman, and Mrs. Briscoe.

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, until they were merged in 1920, is the history of two institutions. These were 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 Mary-

land 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 entirely 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 Education.
College of Engineering.
College of Home Economics.
Graduate School.
Summer School.
Department of Military Science and Tactics.
Department of Physical Education and Recreation.
School of Dentistry.
School of Law.
School of Medicine.
School of Nursing.
School of Pharmacy.

The University faculty consists of the President, 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 all of the faculties.

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

THE EASTERN BRANCH

The Eastern Branch of the University of Maryland is located at Princess Anne, Somerset County. It is maintained for the education of negroes in agriculture and the mechanic arts.

LOCATION

The University of Maryland is located at College Park, in Prince George's County, Maryland, on the Baltimore and Ohio Railroad, eight miles from Washington and thirty-two miles from Baltimore. At least eight trains a day from each city stop at College Park, which makes the place easily accessible from all parts of the State.

The campus fronts on the Baltimore and Washington Boulevard. The suburban town of Hyattsville is two miles to the south, and Laurel is ten miles to the north on the same road. Access to these towns and to Washington may be had by steam and electric railways and busses.

The Professional Schools of Medicine, Nursing, Pharmacy, Dentistry, and Law are located in Baltimore at the corner of Lombard and Greene Streets.

EQUIPMENT

The University equipment of grounds and buildings in College Park and Baltimore is as follows:

College Park

Grounds. The University grounds at College Park comprise about 300 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 ensures 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. The buildings of the Agricultural Experiment Station face the boulevard. The farm of the

College of Agriculture contains about 240 acres, and is devoted to fields, gardens, orchards, vineyards, poultry yards, etc., which are used for experimental purposes and demonstration work in agriculture and horticulture. Recently 270 acres additional have been purchased, about two miles north of the University campus, and this land will be devoted especially to research work in horticulture.

Plans for the location of future buildings have been worked out with due regard to engineering problems and landscape effects.

The sanitary conditions are excellent, as shown by the absence for many years of epidemics in the student body.

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

Buildings. The equipment of buildings comprises about twenty 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 Executive Offices, the College of Agriculture, the College of Education, the Agricultural and Home Economics Extension Service, and the Auditorium; Morrill Hall, which accommodates in part the College of Arts and Sciences; the Engineering Building; the Home Economics Building; the Chemistry Building for instruction in Chemistry and for State work in analysis of feeds, fertilizers, and agricultural lime; Dairy Building; Horticulture Building; Stock Judging Pavilion; Poultry Buildings.

Experiment Station. This group consists of the main building, a large brick structure of the colonial period, housing the office of the Director, and laboratories for research in chemistry and plant physiology; other smaller buildings for housing the laboratories for research in soils and for seed testing; 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 Gymnasium, which provides quarters for the Military Department as well as for physical education; and the Byrd Stadium, with a seating capacity of 15,000 and furnished with dressing rooms for contestants, rest rooms for patrons, and equipment for receiving and transmitting information concerning contests in progress.

Dormitories. Two dormitories, Calvert Hall and Silvester Hall, provide accommodations for 462 men students. Accommodations for 52 women students are provided by three buildings—Gerneaux Hall, the Practice House, and a temporary structure. The Practice House serves also as a demonstration home for the College of Home Economics. A new dormitory for women was authorized by the 1929 session of the Legislature, and construction will start soon.

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

Baltimore

The group of buildings located at the corner of Lombard and Greene Streets provides the available housing for the Baltimore division of the University. There are no grounds other than the sites of these buildings. The group comprises the original Medical School building erected in 1814, the University Hospital, the Law School building and a new Laboratory Building for the Schools of Dentistry and Pharmacy. Full description of these parts of the University equipment are found in the chapters devoted to the Baltimore Schools in Section II.

Libraries

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

The Library at College Park is housed in a separate two-story building. The first floor is devoted to collected material relating to agriculture. The special catalogue cards issued by the United States Department of Agriculture make accessible the large number of State and national bulletins on agriculture and related scientific subjects. The general reference books and the reading room occupy the second floor. The Library is open from 8.15 A. M. to 5.30 P. M. Monday to Friday, inclusive; Saturday from 8.15 A. M. to 12.30 P. M.; Sunday afternoon from 2.30 P. M. to 5.30 P. M., and all evenings except Saturday from 6.30 P. M. to 10 P. M. A new Library Building, which will also house the administrative offices, is now under construction.

The Library facilities in Baltimore for the Schools of Medicine, Law, and Pharmacy are consolidated and housed in Davidge Hall; those for the School of Dentistry and the courses in Arts and Sciences are located in the new Dentistry and Pharmacy Building. The Library hours during the University years are from 9 A. M. to 10 P. M. daily, except Saturday, when the Library closes at 6 P. M.

The Libraries, including departmental libraries, contain a total of 52,000 bound volumes and large collections of unbound journals. In the two central libraries there are approximately 12,000 United States Government documents, unbound reports, and pamphlets.

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

ENTRANCE

All communications regarding entrance should be addressed to the Registrar, who administers the entrance requirements for all departments of the University. Communications pertaining to entrance to the College Park Colleges should be addressed to the Registrar, University of Maryland, College Park, Maryland; those pertaining to the Baltimore Schools, to the Registrar, University of Maryland, Lombard and Greene Streets, Baltimore, Maryland.

GENERAL INFORMATION

Age of Applicants. No applicant who is less than sixteen years of age will be admitted to any of the Colleges or Schools of the University.

Entrance Preliminaries. Candidates for admission should apply as early as possible to the Registrar for the necessary forms for the transfer of preparatory credits. These forms after they are made out and signed by the high school principal should be returned to the Registrar. It is advisable for prospective students to attend to this preliminary as early as possible after graduation from high school, in order to make sure that the units offered are sufficient and acceptable. A candidate who fails to attend to this preliminary may find after reaching the University that he cannot enter. The Registrar is always glad to advise with students, either by correspondence or in person, concerning their preparation. The Registrar sends out a general statement of the procedure for new students to follow after they are duly admitted to the University.

Time of Admission. Applicants for admission should plan to enter at the beginning of the school year in September. It is possible to be admitted to certain Colleges at the beginning of either semester, but students can seldom enter the University to advantage except at the opening of the school year.

Registration. Registration for the first semester, except for new students, takes place at the end of the second semester of the preceding year. Students register for the second semester during the week preceding final examinations of the first semester.

Late Registration. Students who do not complete their registration and classification on regular registration days will be required to pay $3.00 extra on the day following the last registration day and $2.00 for each additional day thereafter until their registration is completed. The maximum fine is $9.00. Students who fail to file course cards in the specified periods in May and January are considered late registrants.

After seven days from the opening of a semester, fees are imposed for a change of registration.

Students who, for any reason, are more than seven days late in registering must secure permission from the instructors in charge for admission to courses. Such permission must be given in writing to the student's dean before course cards will be issued.

Freshman Registration. Registration of freshmen for the first semester will take place Tuesday, September 16th. All freshmen are expected to register on this date.

Dormitories will be ready for occupancy by freshmen Monday, September 15th.

A special freshman program is planned covering the time between registration day and the beginning of the instruction schedule, the object of which is to complete the organization of freshmen so that they may begin the regular work promptly and effectively, and to familiarize them with their new surroundings.

Required to Take Military Instruction

All male students, if citizens of the United States, whose bodily condition indicates that they are physically fit to perform military duty or will be upon arrival at military age, whether pursuing a four-year or a two-year course of study, are required to take for a period of two years, as a prerequisite to graduation, the military training offered by the War Department.

REQUIREMENTS FOR ADMISSION

In general, the requirements for admission to the freshman class are the same as those prescribed for graduation by the approved high schools of Maryland.

High or preparatory school work is evaluated on the basis of "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. Two 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 in English has been taken, an extra unit will be allowed.

Fifteen units, the equivalent of a four-year high school curriculum, are required for admission to all the undergraduate colleges. The additional and special requirements for admission to the professional schools and the Graduate School are given in detail in the chapters devoted to those schools.

Prescribed Units. The following units are required of all candidates for admission:

English	3
Algebra to Quadratics	1
Plane Geometry	1
Science	1
History	1
Total Prescribed	7

In addition to these seven prescribed units, the following are required:
(a) For the Pre-Medical curriculum: two years of foreign language.
(b) For the Engineering and Industrial Chemistry curricula, it is necessary that the student shall have in addition to one unit in algebra and one unit in plane geometry, one unit in algebra, completed, and one-half unit in solid geometry.

Students who do not offer entrance units in algebra, completed, and in solid geometry, may enter the Engineering College, but will be obliged, during the first semester, to take courses which will make up the unit in algebra, completed, and one-half unit in solid geometry, and then they may enter upon the regular freshman mathematics at the beginning of the second semester. The work of the second semester freshman mathematics will be offered these students in the summer school.

Elective Units. In addition to the prescribed units, a sufficient number of units to make a total of fifteen must be offered from the following elective subjects:

Agriculture
Astronomy
Biology
Botany
Chemistry
Civics
Commercial Subjects
Drawing
Economics
English
General Science
Geology
History
Home Economics
Industrial Subjects
Language
Mathematics
Music
Physical Geography
Physics
Physiology
Zoology

METHODS OF ADMISSION

Students are admitted to the University by certificate from approved preparatory schools, by transfer from other colleges or universities, or by examination.

Admission by Certificate from Approved Preparatory Schools. A candidate for admission by *certificate* must be a *graduate* of an approved secondary school and be *recommended* by his high school principal. Nonresident applicants must attain the college recommendation grade of their schools, or, if their schools have no college recommendation grade, an average in their high school work at least 10% higher than the lowest passing grade.

The following groups of secondary schools are approved:

(1) *Secondary schools approved by the Maryland State Board of Education.*

(2) *Secondary schools accredited by the Association of Colleges and Preparatory Schools of the Southern States.*

(3) *Secondary schools accredited by the North Central Association of Colleges and Secondary Schools.*

(4) *Secondary schools accredited by the State Universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.*

(5) *Secondary schools approved by the New England College Entrance Certificate Board.*

(6) *High schools and academies registered by the Regents of the University of the State of New York.*

(7) *High and preparatory schools on the accredited list of other State Boards of Education where the requirements for graduation are equivalent to the standard set by the Maryland State Board of Education.*

(8) *State Normal Schools of Maryland and other State Normal Schools having equal requirements for graduation.*

Regulations Governing Admission from Preparatory Schools in Maryland and the District of Columbia. Graduates of Maryland high schools will be admitted in conformity with provisions of the State School Law and the interpretative regulations of the State Board of Education.

(1) *State School Law (Sect. 198). All certificates or diplomas issued to students having completed a course of study in a county high school shall show the group to which said high school belongs, the course taken by the students, and the number of years of instruction given. Any State-supported or State-aided institution of higher learning shall accept as a student any graduate of an approved public high school who is certified by the high school principal as having the qualifications to pursue a course of study in the particular institution of higher learning, said qualifications being based upon standards determined, for graduates of the county high schools, by the State Board of Education and for the graduates of the Baltimore City high schools, by the Board of School Commissioners of Baltimore City; or who shows, by passing examinations set by the particular State-aided or State-supported institution of higher learning, that he or she has the qualifications to pursue a course of study in that institution.*

(2) *Interpretative Regulations of the State Board of Education.*

(a) *A high school graduate is assured two chances of admission to one of the institutions of higher learning concerned—*EITHER BY BEING RECOMMENDED BY HIS HIGH SCHOOL PRINCIPAL *or* BY PASSING ENTRANCE EXAMINATIONS SET BY THE PARTICULAR INSTITUTION.

(b) *The institution of higher learning is* AT LIBERTY TO ACCEPT ANY GRADUATE *even if he neither qualifies for a recommendation from his high school principal nor passes entrance examinations. Such a graduate, however, is* NOT IN A POSITION TO DEMAND ADMISSION.

(c) *Maryland high school principals shall certify for entrance to any Maryland State-supported or State-aided institution of higher learning any student who has met the published subject-matter requirements of the particular higher institution, and who has made a grade of A or B in at least 60% of the college entrance courses which have been pursued in the last two years of the high school course, and a grade of C or higher in all other college entrance courses which have been pursued during the last two years of the high school course.*

(3) In conformity with the preceding State Law and regulations of the State Board of Education, candidates for admission from Maryland high schools will be classified as "certified" and "non-certified," and high school principals will indicate on the application forms whether the candidate is "certified" or "non-certified." Candidates who are "certified" will be admitted to full regular standing in the freshman class. Candidates who are "non-certified" will be admitted on trial, the period of trial to be eight weeks. Students so admitted who within that period do satisfactory work will be placed on full regular standing at the end of that period; those whose work is doubtful will be placed on probation until the end of the first semester; those whose work indicates failure will be advised to withdraw and their parents so notified.

The same regulations govern the admission of graduates of the District of Columbia high schools.

For admission by certificate the applicant should file with the Registrar of the University as soon as possible after the close of the school year in June a certificate of recommendation made out on the blank form furnished by the University.

Admission by Transfer from Other Colleges or 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 institution which he has attended, in addition to having satisfied the entrance requirements of the University of Maryland.

For admission by transfer the applicant should file with the Registrar as soon as possible after the close of the school year in June a Certificate of Recommendation made out on the blank form furnished by the University. In addition he should have furnished the Registrar, by the institution he has attended, a complete official transcript of his record, together with a statement of honorable dismissal.

Advanced Standing. Advanced standing is granted to students transferring from institutions of collegiate rank for work completed which is equivalent in extent and quality to the work of the University of Maryland, subject to the following provisions:

(1) Regardless of the amount of advanced standing a student may secure, in no case will he be given the baccalaureate degree with less than one year of resident work.

(2) Regardless of the amount of advanced standing a student may secure, in no case will he be given the baccalaureate degree until he has satisfied the full requirements of the curriculum he may elect.

(3) In case the character of a 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 credit allowed.

(4) Credit will not be allowed for more than one-fourth of those courses in which the grade is the lowest passing grade of the college attended.

An applicant may request examination for advanced credit in any subject.

Admission by Examination. Candidates who are not eligible for admission by certificate or by transfer will be admitted upon presenting evidence of having passed the examinations of either the College Entrance Examination Board or the New York Regents' Examinations covering work sufficient to meet the entrance requirements.

The University does not give entrance examinations, but accepts certificates of the College Entrance Examination Board and the New York Regents' Examinations.

The certificate of the College Entrance Examination Board, showing a grade of 60 per cent. or higher, will be accepted as satisfying the entrance requirements in a subject. These examinations are held at various points once a year, beginning the third Monday in June. Full information regarding these examinations may be obtained from the Secretary of the College Entrance Examination Board, 431 W. 117th Street, New York City.

Credit also will be allowed for examinations conducted by the Regents of the University of the State of New York.

Unclassified Students. Mature students who have had insufficient preparation to pursue any of the four-year curricula may matriculate, with the consent of the Committee on Entrance, for such subjects as they are fitted to take. These students, however, will be ineligible for degrees.

HEALTH SERVICE

PHYSICAL EXAMINATIONS

As soon as possible after the opening of the fall semester, as a measure for protecting the health of the student body, 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 College Physician in co-operation with the Military Department. The examination of the women students is conducted by a woman physician especially employed for this purpose in co-operation with the Instructor of Physical Education for Women.

RULES GOVERNING MEDICAL SERVICE

1. All students, paying the fixed University charges, who report at the Infirmary will be given medical attention and medicine, except for special conditions, such as major operations, eye, ear, and nose work, etc.

2. Students residing on the campus when too sick to report at the Infirmary in person will be visited in their rooms by the University Physician or nurse. Except in emergencies, such cases of illness should be reported at the usual hours at the Infirmary.

3. Students residing in fraternity, sorority, or boarding houses adjacent to and approved by the University will be treated by the University Physician the same as students living on the campus. When practicable, sickness should be reported before 9 A. M. to the University Physician (phone Hyattsville 686) or Infirmary (Berwyn 85-M).

4. Students living at home with relatives or guardians shall not be entitled to medical attention in their homes unless injured in some form of University activity.

5. Students residing in fraternity, sorority, or boarding houses may, upon order of the University Physician, be cared for in the Infirmary. Such students shall pay the University an extra charge of $1.00 per day to cover cost of food and service from the Dining Hall.

6. The University Physician will give medical supervision and treatment to employees of the University (but not their families) who work in the kitchen, dining hall, dormitories, and dairy.

7. Members of the faculty, clerical force, and students not paying fixed charges shall *not* be entitled to *free* treatment or medical attention by the University Physician or nurse, or to have the use of the Infirmary.

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.

Schedule of Courses. A semester schedule of days, hours, and rooms is issued as a separate pamphlet at the beginning of each semester.

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. No student is exempted from examination in any course.

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 with a grade of "E" is conditioned in the course. A grade of "E" may be changed by a re-examination to "D" or "F". The grade "E" cannot be raised to a higher grade than "D". A condition not removed within the succeeding semester becomes a failure.

The mark of "I" (Incomplete) is given only to those students who have a proper excuse for not having completed all the requirements of a course. The mark of "I" is not used to signify work of inferior quality. In cases

where this grade 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 mark becomes "F".

Work of grade "D", or of any passing grade, cannot be raised to a higher grade except by repeating the course. 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.*

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 College Park.

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

Each candidate for a degree must file in the Office of the Registrar before March 1st of the year he expects to graduate, a formal application for a degree.

EXPENSES

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

In order to reduce the cost of operation, 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 following table gives the minimum amounts which must be paid per semester by all regular resident students at College Park:

	First	Second	Total
Fixed Charges	$ 57.50	$ 57.50	$115.00
Library Fee	5.00	.....	5.00
Athletic Fee	15.00	.....	15.00
*Depreciation Fee	4.00	.....	4.00
**Special Fee	10.00	.....	10.00
***Student Activities Fee	10.00	.....	10.00
Minimum Charge to All Students	$101.50	$ 57.50	$159.00
Board	135.00	135.00	270.00
Lodging	38.00	38.00	76.00
Laundry	13.50	13.50	27.00
	$288.00	$244.00	$532.00

In addition to the above regular charges the following special fees will be charged as indicated:

$5.00 matriculation fee to students registering for the first time.
$62.50 per semester to non-resident students.
$25.00 per semester for resident pre-medical or pre-dental work.
$125.00 per semester to non-resident students taking pre-medical or pre-dental work.
$10.00 diploma fee.
$5.00 certificate fee.
$20.00 graduation fee for Ph. D. degree, including diploma and hood.
$1.00 condition examination fee.
$1.00 fee for change in registration after first week.

* This fee is to cover, in part, depreciation of dormitories, laboratories, classrooms, etc., for which the State does not wholly provide.
**This fee, established by special request of the Student Government Association for a period of eight years, is for the purpose of further improving the University grounds and the physical training facilities.
***This fee also is established on request of the Student Government Association. It is to cover certain charges for the student paper, the year book, and the cost of running the Student Government. It is not mandatory.

$1.00 fee for failure to file schedule card in Registrar's office within one week after opening of semester.

$2.00 fee for failure to report for medical examination at time designated.

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.

Laboratory Fees as follows:

	Per Semester
Bacteriology:	
Fee for each Laboratory course	$2.00
Chemistry:	
Inorganic Chemistry	4.00
Organic Chemistry	6.00
Physical Chemistry	4.00
Analytical Chemistry	6.00
Agricultural Chemistry	5.00
Industrial Chemistry	5.00
Home Economics:	
Courses in Foods	3.00

Late Registration Fee. Students who do not complete their registration and classification on regular registration days will be required to pay $3.00 extra on the day following the last registration day, and $2.00 for each additional day thereafter until their registration is completed. The maximum fee is $9.00.

Absence Fee. In cases of absence 24 hours before, or 24 hours after classes close or begin, respectively, for a vacation or holiday a student will be penalized by the payment of a special fee of $3.00 for each class missed.

Graduate Fees. The fees paid by graduate students are as follows:

Matriculation fee	$10.00
Per semester credit hour	1.50
Diploma fee (Master's degree)	10.00
Graduation fee (Doctor's degree)	20.00

EXPLANATIONS

The Fixed Charges made to all students are 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.

The Library Fee is designed to cover in part the cost of wear and tear on library books.

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.

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 or guardians have been residents of this State or the District of Columbia for at least one year. Students from the District of Columbia have non-resident status if entered in the schools of the University in Baltimore.

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.

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 his parents or guardians move to and become legal residents of this State.

MISCELLANEOUS INFORMATION

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

Board and lodging may be obtained at boarding houses or in private families, if desired.

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 costs of books and supplies and personal needs will vary according to the tastes and habits of the individual student. Books and supplies average about $40.00 per year.

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

DORMITORY RULES AND REGULATIONS

The office of the Dormitory Manager is located in Room 121, Silvester Hall. Each dormitory student, after registering, will proceed immediately to the Dormitory Manager's office to receive his room key and take possession of his room. Instructions regarding the rules for the dormitories will be given to the student at this time.

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

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

All students assigned to dormitories are required to provide themselves with sufficient single blankets, at least two pairs of single sheets, three pillow cases, six towels, a pillow, a laundry bag, a broom, and a waste basket.

Room Reservations. All students who are to room in the dormitories must register their names and selection of rooms with the Dormitory Manager, and deposit $5.00 with the Cashier as a reserve fee. This fee will be deducted from the first semester charges when the student registers; if he fails to register, the fee will be forfeited. Reservations may be made at any time during the closing month of the school year by students already in the University. Students who are applying for admission to the University should signify their desire to reserve a room, and accompany this request with a remittance of $5.00.

Keys. Students who withdraw from the dormitories at any time and fail to surrender their keys to the Dormitory Manager immediately will be subject to a charge of $1.00.

WITHDRAWALS

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. Withdrawal slips must bear the approval of the President and the Financial Secretary before being presented to the Cashier for refund.

REFUNDS

For withdrawal within five days full refund of fixed charges, library fee, athletic fee, and reserve fee, with a deduction of $5.00 to cover cost of registration. All refunds for board, lodging, and laundry will be pro-rated.

After five days, and until November 1, refunds on all charges will be pro-rated, with a deduction of $5.00 to cover cost of registration.

After November 1, refunds will be granted for board and laundry only, amounts to be pro-rated.

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

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

EXPENSES AT BALTIMORE

The fees and expenses for the schools located in Baltimore are as follows:

		Tuition			
	Matriculation	Resident	Non-Resident	Laboratory	Graduation
Medicine	$10.00 (once only)	$350.00	$500.00	$25.00 yr.	$15.00
*Dentistry	10.00 (once only)	250.00	300.00	40.00 yr.	15.00
Pharmacy	10.00 (once only)	200.00	250.00	30.00 yr.	10.00
Law (night)	10.00 (once only)	150.00	200.00	.....	15.00
(day)	10.00 (once only)	200.00	250.00	.....	15.00

Applicants for admission to any of the schools are charged a record investigation fee of $2.00.

STUDENT EMPLOYMENT

A considerable number of students earn some money through employment while in attendance at the University. No student should expect to earn enough money to pay all of his expenses. The amounts vary from nearly nonthing to one-half or three-fourths of all the required funds for a college education.

Generally the first year is the hardest for students desiring employment. After the student has demonstrated that he is worthy and capable, there is much less difficulty finding employment.

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

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.

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.

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* Students are required to pay, once only, a dissecting fee of $15.00.
Note—Late registration fee, $5.00.

Sigma Phi Sigma Medal. The Delta Chapter of Sigma Phi Sigma Fraternity offers annually a gold medal to that 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 that sophomore who has attained the highest scholastic average of his class in the College of Engineering. The medal is given by Benjamin Berman.

Interfraternity Scholastic Trophy. The Theta Chi Fraternity has presented to the University a silver trophy, which is awarded annually to that fraternity which had the highest average in scholarship for the preceding scholastic year. It becomes the permanent property of the fraternity that wins it three times.

The Kappa Kappa Gamma Sorority offers annually a loan of one hundred dollars ($100.00), without interest, to any 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.

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

PUBLIC SPEAKING AWARDS

President's Cup for Debate. An annual debate is held each year in January between the Poe and New Mercer Literary Societies for the "President's Cup," given by Dr. H. J. Patterson.

Alumni Medal for Debate. A gold medal is awarded by the Alumni Association each year to the best debater in the University, the test being a debate between picked teams from the two literary societies.

The Oratorical Association of Maryland Colleges, consisting of Washington College, Western Maryland College, St. John's College, and University of Maryland, offers each year gold medals for first and second places in an oratorical contest that is held between representatives of the four institutions.

OTHER MEDALS AND PRIZES

Athletics. The class of 1908 offers annually to "the man who typifies the best in college athletics" a gold medal. The medal is given in honor of former President R. W. Silvester, and is known as "The Silvester Medal for Excellence in Athletics."

Military 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 Sword. The class of 1897 awards annually to the captain of the best-drilled company of the University battalion a silver-mounted sword.

Citizenship Prize. A gold watch is presented annually by Mr. 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 at College Park. The description of student activities 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, except those which are controlled by a special board or faculty committee, are under the supervision of the Committee on Student Affairs, subject to the approval of the President. Such organizations are formed only with the consent of the Committee on Student Affairs 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.

The "Students' Handbook," issued annually and distributed to the students in the fall, contains full information in regard to student activities as well as in regard to academic regulations. Some of the more important items are given here.

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 eliminated. 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.

Student Government. The General Students' Assembly consists of all the students and is the instrument of student government. It operates under a constitution. Its officers are a President, Vice-President, and Secretary, and an Executive Council representative of the several college classes.

The Students' Assembly meets the second Wednesday of each month at 11.20 o'clock in the Auditorium for the transaction of business which concerns the whole student body. On alternate Wednesdays a program is arranged by the officers with the aid of the Department of Public Speaking. The Students' Executive Council, with the aid of the Committee on Student Affairs, which acts as an advisory board to the Council, performs the executive duties incident to managing student affairs.

Women Students' Government Association is an organization comprising all the women students, for the management of all affairs concerning the women students exclusively. It operates under a constitution. Its officers are the same as those of the General Students' Assembly. Its Executive Council has the advisory co-operation of the Dean of Women.

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, Scientific fraternity; Alpha Zeta, a national honorary agricultural fraternity recognizing scholarship and student leadership; Omicron Delta Kappa, men's national honor society, recognizing conspicuous attainments in extra curricular activities and general leadership; Sigma Delta Pi, a national honorary Spanish fraternity; Alpha Chi Sigma, a national honorary chemical fraternity; Scabbard and Blade, a national military society; Tau Beta Pi, a national honorary engineering fraternity; The Women's Senior Honor Society, a local organization recognizing conspicuous attainments; Theta Gamma, a local Home Economics society; Gamma Alpha Nu (Journalistic), local; Alpha Psi Omega (Iota Chapter)—dramatic.

Fraternities and Sororities. There are eight national and five local fraternities, and three national, and one local, sororities 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, and Tau Epsilon Phi (national fraternities), and Alpha Omicron Pi, Kappa Kappa Gamma, and Kappa Delta, national sororities, and Nu Sigma Omicron, Delta Psi Omega, Sigma Tau Omega, and Alpha Phi Sigma (local fraternities), and Alpha Upsilon Chi (local sorority).

Miscellaneous 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: Authorship Club, Engineering Society, Hort 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 Team, Rossbourg Club, Mathematics Society.

Student Grange. The Student Grange is a chapter of the national fraternity. 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

Religious Work Council. The Religious Work Council, comprising the President of the University, acting as chairman, all Student Pastors officially appointed by the Churches for work with the students of their respective faiths, and representative students, focalizes, reviews, and stimulates the religious thought and activity of the student body. This Council has an executive secretary with an office in the Agricultural Building, who is daily at the service of the students and the churches.

While there is no interference with any one's religion, religion itself is recognized, and every possible provision made that the student may keep in contact with the church of his choice.

The Christian Associations. The Young Men's Christian Association and the Young Women's Christian Association help direct the religious activities of the men and women students, respectively. In addition, they perform other important functions, such as welcoming new students, and promoting morale and good fellowship in the student body. The two Asociations, in co-operation with the Committee on Student Affairs, publish and distribute free of charge the Student's Handbook to each student at the beginning of the scholastic year. This handbook contains detailed information in regard to registration, academic regulations, and student activities.

The Program Committees of the two Associations provide organized programs of religious study running through the college year.

The Discussion Group, organized and conducted by the students, meets Sunday evening for the discussion of important religious, social, and political questions, both national and international.

The Episcopal Club. The Episcopal Club is an organization of the Episcopal students (both men and women) and their friends, banded together for mutual fellowship and Christian service. It is a duly recognized unit of the National Student Council of the Protestant Episcopal Church.

STUDENT PUBLICATIONS

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

The Diamondback. A weekly, six page newspaper, the Diamondback, 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 Reveille is the student annual, published by the Junior Class. It is a reflection of student activities serving to commemorate the outstanding events of the college year.

ALUMNI ORGANIZATION

The alumni are divided into several organizations, which elect representatives to the Alumni Council, an incorporated body which manages all general alumni affairs. Different alumni units represent the Medical School, the Pharmacy School, the Dental School, the Law School, the School of Nursing, while the group of colleges at College Park are represented by one unit. This College Park unit is governed by a board made up of representatives from each of the colleges located at College Park.

The Alumni Council is made up 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

HARRY J. PATTERSON, *Dean*

Agriculture is the primary pursuit of the human race, and permanent prosperity is in direct proportion to the producing capacity of the land. Land-Grant Colleges were founded to foster the teaching of scientific agriculture. The primary aim of the College of Agriculture of the University of Maryland is to teach the best and most practical methods of farm production, the economics of marketing and distribution, and methods of improving the economic and social position of the farmer. Agriculture is constantly changing; no cropping system can be worked out once and for all time; new as well as old pests and diseases must be constantly combated; better feeding and breeding of live stock and more efficient marketing methods must be substituted for the old and inefficient methods if agriculture is to maintain its importance with the other industries. Above all, agriculture must be made profitable to the tiller of the soil and must be established as a paying business for those who engage in it, as well as for town and city dwellers.

The curricula of the College of Agriculture are planned to give the student thorough and practical instruction in agriculture and related sciences, and at the same time afford an opportunity to specialize along the lines in which he is particularly interested. Likewise, instruction is given which will prepare students for teaching positions in agriculture, for governmental investigation and experimental work, for positions as county agents, farm bureau leaders, farm supervisors, as well as for farming.

Departments

The College of Agriculture includes the following departments: Agricultural Economics; Agronomy (including Crops and Soils); Animal Husbandry; Bacteriology; Botany; Dairy Husbandry; Entomology and Bee Culture; Farm Forestry; Farm Management; Farm Mechanics; Genetics and Statistics; Horticulture (including Pomology, Vegetable Gardening, Landscape Gardening, and Floriculture); Plant Pathology; Plant Physiology and Bio-chemistry; Poultry Husbandry.

Admission

The requirements for admission are the same as for other colleges and schools. See Section I, "Entrance."

Requirements for Graduation

One hundred and twenty-eight semester hours are required for graduation. The prescribed work is the same for all freshmen and sophomores (except for those specializing in Bacteriology, Botany, Floriculture, Landscape Gardening, and Entomology); thereafter the work required varies according to the major and minor subjects pursued by the student.

Major Subject

Before the beginning of the third year the student chooses a department in which he will do his major work. After he chooses his major subject, some member of the department (appointed by the head of the department) will become the student's adviser in the selection of courses. The adviser may designate a minor subject if he deems it necessary.

The minimum requirements for a major in one department are fourteen semester hours, and the maximum hours permitted to count toward a degree are thirty-five semester hours.

Farm Practice

Students without farm experience do not, as a rule, secure full benefit from any of the agricultural courses. A committee has been appointed for the purpose of assisting all students coming to the college without farm training to obtain a fair knowledge of actual farm practice. Sometime during the year the committee will examine all members of the freshman class to determine whether or not their experience satisfies the farm practice requirements. Those not able to pass this examination will be required to spend at least three months on a farm designated or approved by the committee. If the student has had no experience whatsoever before entering college, he may be required to spend six to nine months on a farm. The committee reserves the right also to call on all students so placed for written reports showing the experience gained while on these farms.

Student Organizations

The students of the College of Agriculture maintain a Student Grange, a Horticulture Club, a Livestock Club, and an honor fraternity, Alpha Zeta.

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

The Student Grange represents the Great National Farmers fraternity of the Order of Patrons of Husbandry, and in their work they emphasize "Training for Rural Leadership." They sponsor much deputation work in local granges throughout the state. The Horticulture Club sponsors the Horticulture Show in the fall, and the Livestock Club, the Fitting and Showing Contest in the spring. Both of these exhibitions are very creditable University functions. They give valuable training and inspiration to the students.

Alpha Zeta—National Agricultural Honor Fraternity

Membership in this fraternity is chosen from the students in the College of Agriculture after an earnest agricultural motive and executive ability have been demonstrated. This organization fosters good 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.

Fellowships

A limited number of graduate fellowships, which carry remuneration of $500 to $1000 yearly, are available to graduate students. Students who hold these fellowships spend a portion of their time assisting in classes and laboratories. The rest of the time is used for original investigation or assigned study. (See Graduate School.)

Curricula in Agriculture

Students who register in the College of Agriculture, and expect to specialize in Botany, Entomology, or Landscape Gardening, follow a special curriculum during the entire four years of their college course. Those who expect to specialize in Bacteriology or Entomology begin specialization in the sophomore year. All others follow the same curriculum during the freshman and sophomore years. At the end of the sophomore year they may elect to specialize along the lines in which they are particularly interested.

With the advice and consent of his advisor and the dean, any student may make such modifications in his curriculum as are deemed advisable to meet the requirements of his particular case. However, in requesting any change one should be guided by the fact that, according to past records, one who does not return to the farm is likely to engage in either teaching and research or business and commercial pursuits. Those students who desire to enter teaching or research positions for which graduate study is essential should lay a broad foundation in the funadmental sciences. Also, those who desire to enter business or commercial pursuits should take a broad general course rather than a narrow specialized one.

	Semester	
Freshman Year	*I*	*II*
Gen'l Chem. and Qual. Analysis (Chem. 1y)	4	4
*General Zoology (Zool. 1f)	4	—
*General Botany (Bot. 1 s)	—	4
Composition and Rhetoric (Eng. 1y)	3	3
General Animal Husbandry (A. H. 1f)	3	—
Principles of Vegetable Culture (Hort. 11 s)	—	3
Reading and Speaking (P. S. 1y)	1	1
Basic R. O. T. C. (M. I. 1y)	1	1
	—	—
	16	16

Sophomore Year	*Semester I*	*II*
‡Elements of Organic Chemistry (Chem. 12f)	4	—
‡Agricultural Chemical Analysis (Chem. 13 s)	—	3
Geology (Geol. 1f)	3	—
Soils and Fertilizers (Soils 1 s)	—	5
Elementary Pomology (Hort. 1f)	3	—
Cereal and Field Crop Production (Agron, 1f and 2 s)	3	3
Feeds and Feeding (A. H. 2f)	3	—
Farm Dairying (D. H. 1 s)	—	3
Basic R. O. T. C. (M. I. 2y)	2	2
	18	16

AGRICULTURAL EDUCATION

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

(For special requirements and curriculum see page 105, College of Education.)

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, investigational work in the State or Federal Experiment Stations, or 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. Students who are preparing to take up research or teaching are expected to take graduate work in addition

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* Offered each semester.

‡ Students specializing in Agricultural Economics will substitute for chemistry the following courses:

Principles of Economics (Econ. 3 s)	—	3
Agricultural Industry and Resources (A. E. 1f)	3	—

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 for teaching soils in agricultural colleges, to conduct research in experiment stations, and to carry on work with the Bureau of Soils, United States Department of Agriculture.

Crops Division

Junior Year	*Semester I*	*II*
Genetics (Gen. 101f)	3	—
Grain and Hay Judging (Agron. 4f)	1	—
Grading Farm Crops (Agron. 3 s)	—	2
General Bacteriology (Bact. 1f)	3	—
Soil Micro-Biology (Soils 104 s)	—	3
Expository Writing (Eng. 5f and 6 s)	2	2
General Plant Physiology (Plt. Phy. 1f)	4	—
Principles of Economics (Econ. 3 s)	—	3
Electives	3	6
	16	16
Senior Year		
Crop Breeding (Agron. 103f)	2	—
Advanced Genetics (Gen. 102 s)	—	3
Agricultural Economics (A. E. 2f)	3	—
Methods of Crop and Soil Investigations (Agron. 121 s)	—	2
Cropping Systems and Methods (Agron. 120 s)	—	2
Soil Surveying and Classification (Soils 3f)	3	—
Farm Drainage (F. Mech. 107 s)	—	2
Farm Machinery (F. Mech. 101f)	3	—
Farm Forestry (For. 1 s)	—	3
Farm Management (F. M. 2f)	4	—
Seminar (Agron. 203y)	1	1
Electives	—	3
	16	16

Soils Division

Junior Year		
Expository Writing (Eng. 5f and 6 s)	2	2
Principles of Economics (Econ. 3 s)	—	3
General Bacteriology (Bact. 1f)	3	—

	Semester I	Semester II
Soil Micro-Biology (Soils 104 s)	—	3
Soils and Fertilizers (Soils 1f)	5	—
Soil Management (Soils 2 s)	—	3
General Plant Physiology (Plt. Phy. 1f)	4	—
Cropping Systems and Methods (Agron. 120 s)	—	2
Electives	2	3
	16	16
Senior Year		
Agricultural Economics (A. E. 2f)	3	—
Farm Management (F. M. 2f)	4	—
Methods of Crop and Soil Investigations (Agron. 121 s)	—	2
Soil Surveying and Classification (Soils 3f)	3	—
Soil Technology (Soils 202y)	3	3
Farm Drainage (F. Mech. 107 s)	—	2
Seminar (Agron. 203y)	1	1
Electives	2	8
	16	16

ANIMAL HUSBANDRY

The courses in animal husbandry have developed with the idea of teaching the essential principles underlying the breeding, feeding, development, and management of livestock, together with the economics of the livestock industry.

The curriculum in animal husbandry is so planned as to allow plenty of latitude in the selection of courses outside of the department, thus giving the student a broad, fundamental training and fitting him to become the owner or superintendent of general or specialized livestock farms.

Opportunity for specialization is offered to those who may desire to become instructors or investigators in the field of animal husbandry.

Some livestock are maintained at the University. In addition, there are available, for use in instruction, the herds of livestock owned by the Federal Bureau of Animal Industry at Beltsville, Maryland. Through the courtesy of Maryland breeders, some private herds are also available for inspection and instruction.

Junior Year	Semester I	Semester II
Expository Writing (Eng. 5f and 6 s)	2	2
General Bacteriology (Bact. 1f and 2 s)	3	3
Principles of Economics (Econ. 3 s)	—	3
Principles of Breeding (A. H. 3 s)	—	3

	Semester I	Semester II
*Swine Production (A. H. 4 s)	—	3
Comparative Anatomy and Physiology (Bact. 106f)	3	—
Genetics (Gen. 101f)	3	—
Electives	5	2
	16	16
Senior Year		
Agricultural Economics (A. E. 2f)	3	—
*Sheep Production (A. H. 7 s)	—	3
Farm Machinery (F. Mech. 101f)	3	—
Animal Hygiene (Bact. 108 s)	—	3
Meat and Meat Products (A. H. 8f)	2	—
Farm Drainage (F. Mech. 107 s)	—	2
General Physiological Chemistry (Chem. 104f)	4	—
Seminar (A. H. 102y)	1	1
Electives	3	7
	16	16

BACTERIOLOGY

The present organization of this department has been brought about with two main purposes in view. The first is to give all the students of the University an opportunity to obtain a general knowledge of the subject. This is of prime importance, as bacteriology is a basic subject, and is of as much fundamental importance as physics or chemistry. The second purpose, and one for which this curriculum was designed, is to fit students for positions along bacteriological lines. These include the work of dairy bacteriologists and inspectors; soils bacteriologists; federal, state, and municipal bacteriologists for public health positions, research positions, commercial positions, etc. At present, the demand for persons qualified for this work is much greater than the supply. This condition is likely to exist for some time.

Sophomore Year	Semester I	Semester II
Elements of Organic Chemistry (Chem. 12f)	4	—
Agricultural Chemical Analysis (Chem. 13 s)	—	3
*Physics (Phys. 3 s) or Principles of Economics (Econ. 3 s)	—	4 or 3
General Bacteriology (Bact. 1f and 2 s)	3	3
R. O. T. C. (M. I. 2y)	2	2
Electives	7	4 or 5
	16	16

* Only those students who are excused from Physics will take Economics.
* Courses taken by both juniors and seniors in alternate years.

Junior Year	Semester I	II
Dairy Bacteriology (Bact. 101y)	3	3
Expository Writing (Eng. 5f and 6 s)	2	2
Advanced Bacteriology (Bact. 102)	—	3
Electives	11	8
	16	16

Senior Year		
Advanced Bacteriology (Bact. 102y)	3	3
General Physiological Chemistry (Chem. 104f)	4	—
Genetics (Gen. 101f)	3	—
Statistics (Gen. 111f)	2	—
Hematology (Bact. 103 s)	—	2
Seminar (Bact. 110y)	1	1
Electives	3	10
	16	16

BOTANY

The courses listed for the curriculum in botany make a kind of skeleton of essentials, to which the student adds the individual requirements to make a complete four-year course. No electives are permitted in the freshman year, but thereafter the leeway increases to the senior year, in which all of the courses are elected or selected to fit the individual needs of the student. This leeway is thought to be important because all students do not have the same ends in view. They may wish to prepare for teaching, investigational work in state or government experiment stations, governmental inspection, or any other vocations which botanists follow. The curriculum as outlined lays the foundation for graduate work leading to higher degrees.

Freshman Year	Semester I	II
General Chemistry and Qualitative Analysis (Chem. 1y)	4	4
General Botany (Bot. 1f and 2 s)	4	4
Composition and Rhetoric (Eng. 1y)	3	3
Reading and Speaking (P. S. 1y)	1	1
Modern Language (French or German)	3	3
Basic R. O. T. C. (M. I. 1y)	1	1
	16	16

Sophomore Year	Semester I	II
Elements of Organic Chemistry (Chem. 12f)	4	—
Mathematics (Math. 1f and 2 s)	3	3
Zoology (Zool. 1 s)	—	4
Modern Language	3	3
General Mycology (Bot. 4 s)	—	2
Systematic Botany (Bot. 3 s)	—	2
Basic R. O. T. C. (M. I. 2y)	2	2
Elective	4	—
	16	16

Junior Year		
General Physics (Phys. 1y)	4	4
Diseases of Plants (Plt. Path. 1f)	3	—
General Plant Physiology (Plt. Phy. 1f)	4	—
Plant Ecology (Plt. Phy. 101 s)	—	3
Expository Writing (Eng. 5f and 6 s)	2	2
Genetics (Gen. 101f)	3	—
Elective	—	7
	16	16

Senior Year		
Botanical Electives:		
†Plant Anatomy (Bot. 101 s)	—	2
†Methods in Plant Histology (Bot. 102 s)	—	2
†Advanced Taxonomy (Bot. 103f)	3	—
†Economic Plants (Bot. 105 s)	—	2
†Diseases of Fruits (Plant Path. 101 s)	—	2–4
†Diseases of Garden and Field Crops (Plant Path. 102 s)	—	2–4
†Pathogenic Fungi (Plant Path. 109f)	3	—
General Bacteriology (Bact. 1f)	3	—
Elective	7	2–6
	16	16

DAIRY AND ANIMAL HUSBANDRY

Dairy Husbandry

The Department of Dairy Husbandry offers courses in two major lines; namely, dairy production and dairy manufacture. The curriculum in each of these lines is so arranged as to give the student an intimate knowledge of the science and facility in the art of dairy husbandry practice. The dairy production option is so organized as to meet the specific requirements

† Courses taken by both juniors and seniors in alternate years.

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 students who are especially 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 manufacture and plant 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, teachers, investigators in the State and Federal Agricultural Experiment Stations, or to enter the field of commercial dairying.

DAIRY HUSBANDRY

Dairy Manufacture

	Semester I	Semester II
Junior Year		
Expository Writing (Eng. 5f and 6 s)	2	2
Principles of Economics (Econ. 3 s)	—	3
General Bacteriology (Bact. 1f)	3	—
Introductory Accounting (Econ. 109y)	3	3
Dairy Chemistry (Chem. 106s)	—	4
Dairy Manufacturing (D. H. 4y)	3	3
Market Milk (D. H. 5f)	4	—
Electives	1	1
	16	16
Senior Year		
Agricultural Economics (A. E. 2f)	3	—
Market Milk (D. H. 5f)	4	—
Dairy Manufacturing (D. H. 4y)	3	3
Dairy Bacteriology (Bact. 101)	3	—
Dairy Plant Technique (D. H. 7s)	—	2
Marketing of Farm Products (A. E. 102s)	—	3
Co-operation in Agriculture (A. E. 103f)	3	—
Seminar (D. H. 103y)	1	1
Electives	—	6
	17	15

Dairy Production

	Semester I	Semester II
Junior Year		
Expository Writing (Eng. 5f and 6s)	2	2
Principles of Economics (Econ. 3s)	—	3
General Bacteriology (Bact. 1f)	3	—
Dairy Production (D. H. 2f)	3	—
Principles of Breeding (A. H. 3s)	—	3
Advanced Dairy Cattle Judging (D. H. 3s)	—	1
Genetics (Gen. 101f)	3	—
Farm Drainage (F. Mech. 107s)	—	2
Electives	5	5
	16	16
Senior Year		
Agricultural Economics (A. E. 2f)	3	--
Market Milk (D. H. 5f)	4	—
Dairy Bacteriology (Bact. 101)	3	—
Animal Hygiene (Bact. 108s)	—	3
Seminar (D. H. 103y)	1	1
Electives	5	12
	16	16

ENTOMOLOGY

This department is concerned with 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 a large measure dependent upon his knowledge of the methods of preventing or combating the pests that menace his crops each year. Successful methods of control are emphasized in the economic courses.

There is an ever-increasing demand for trained entomologists. 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. Following is the suggested curriculum in Entomology. It can be modified to suit individual demand.

	Semester I	Semester II
Freshman Year		
General Chemistry and Qualitative Analysis (Chem. 1y)	4	4
General Zoology (Zool. 1f)	4	—
General Botany (Bot. 1s)	—	4
Introductory Entomology (Ent. 1)	—	3
Composition and Rhetoric (Eng. 1y)	3	3
French (1) or German (1)	3	3
Basic R. O. T. C. (M. I. 1y)	1	1
	—	—
	15	18
Sophomore Year		
Elements of Organic Chemistry (Chem. 12f)	4	—
Agricultural Chemical Analysis (Chem. 13s)	—	3
Expository Writing (Eng. 5f and 6s)	2	2
French (3y) or German (3y)	3	3
Intermediate Entomology (Ent. 2y)	3	3
Basic R. O. T. C. (M. I. 2y)	2	2
Electives	2	3
	—	—
	16	16
Junior Year		
*Economic Entomology (Ent. 101y)	3	3
Economic Zoology (Zool. 4s)	—	2
General Bacteriology (Bact. 1f and 2s)	3	3
Electives	10	8
	—	—
	16	16
Senior Year		
*Insect Pests of Special Groups (Ent. 104y)	4	4
Special Problems (Ent. 4y)	2	2
Seminar (Ent. 103y)	1	1
Electives	9	9
	—	—
	16	16

* Courses taken by both juniors and seniors in alternate years.

Electives in Botany, particularly Plant Physiology and Plant Pathology, are urged as especially desirable for most students specializing in Entomology.

FARM MANAGEMENT AND AGRICULTURAL ECONOMICS

In this department are grouped courses in farm management and agricultural economics.

Farm management has been defined as the business of the individual farmer so to organize his business as to produce the greatest continuous profit. This can be done, however, only when the organization is in accordance with the broader principles of agricultural economics. It requires not only knowledge of many factors involved in the production of crops and animals, but also administrative ability to co-ordinate them into the most efficient farm organization. Farming is a business, and as such demands for its successful conduct the use of business methods. As a prerequisite to the technical farm management course there is offered a course in farm accounting. This course is not elaborate, but is designed to meet the need for a simple yet accurate system of farm business records.

The aim of the farm management course is to assist the student to perceive the just relationship of the several factors of production and disposition as applicable to local conditions, and to develop in him executive and administrative capacity.

Agricultural economics considers the fundamental principles underlying production, distribution, and consumption, more especially as they bear upon agricultural conditions. Land, labor, and capital are considered in their relationship to agriculture.

The farmer's work does not end with the production of crops or animal products. More and more it is evident that economical distribution is as important a factor in farming as is economical production.

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

	Semester I	Semester II
Junior Year		
Agricultural Economics (A. E. 2f)	3	—
Marketing of Farm Products (A. E. 102s)	—	3
Farm Accounting (F. M. 1s)	—	3
Business Law (Econ. 107f and 108s)	3	3
Grading Farm Crops (Agron. 3s)	—	2
Business Organization and Operation (Econ. 105f)	2	—
Statistics (Gen. 111f and 112s)	2	2
Expository Writing (Eng. 5f and 6s)	2	2
Electives	4	1
	—	—
	16	16

Senior Year	*Semester I*	*II*
Co-operation in Agriculture (A. E. 103f)	3	—
Transportation of Farm Products (A. E. 101s)	—	3
Seminar (A. E. 109y)	1–3	1–3
Farm Management (F. M. 2f)	4	—
Farm Machinery (F. Mech. 101f)	3	—
Agricultural Finance (A. E. 104s)	—	3
Rural Life and Education (Ag. Ed. 102 s)	—	3
Money and Credit (Econ. 101f)	2	—
Electives	1-3	4-6
	16	16

FARM MECHANICS

The Department of Farm Mechanics is organized to offer students of agriculture training in those branches of agriculture 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 replace hand labor, requiring the use of many men, by large machines, which do the work of many men yet require only one man for their operation. In many cases horses are being replaced by tractors to supply the motive force for these machines. Trucks, automobiles, and stationary engines are found on almost every farm. It is highly advisable that the student of any branch of agriculture have a working knowledge of the construction and adjustments of these machines.

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

The study of drainage includes the principles of tile drainage, the laying out and construction of tile drain systems, the use of open ditches, and a study of the Maryland drainage laws.

GENERAL AGRICULTURE

Those who do not care to specialize in any particular phase of agriculture will pursue the following curriculum:

Junior Year	*Semester I*	*II*
Diseases of Plants (Plt. Path. 1f)	3	—
General Plant Physiology (Plt. Phy. 1f)	4	—
General Bacteriology (Bact. 1f)	3	—
Expository Writing (Eng. 5f and 6s)	2	2
Farm Poultry (P. 101s)	—	3

	Semester I	*II*
Genetics (Gen. 101f)	3	—
Farm Accounting (F. M. 1s)	—	3
Principles of Breeding (A. H. 3s)	—	3
Principles of Economics (Econ. 3s)	—	3
Electives	1	2
	—	—
	16	16

Senior Year		
Agricultural Economics (A. E. 2f)	3	—
Farm Management (F. M. 2f)	4	—
Farm Machinery (F. Mech. 101f)	3	—
Gas Engines, Tractors, and Automobiles (F. Mech. 102s)	—	4
Cropping Systems and Methods (Agron. 120s)	—	2
Farm Drainage (F. Mech. 107s)	—	2
Farm Forestry (Forestry 1s)	—	3
Electives	6	5
	—	—
	16	16

GENETICS AND STATISTICS

Rapid accumulation of knowledge in the field of genetics has revolutionized 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 and induction.

HORTICULTURE

There are several reasons why the State of Maryland should be preeminent in the different lines of horticulture and offer such excellent opportunities for horticultural enterprises. A few of the more evident ones are the wide variation in soil and climate from the Eastern Shore to the mountainous counties of Allegheny and Garrett in the west, the nearness to all of the large Eastern markets, and the large number of railroads, interurban lines, and waterways, all of which combine to make marketing easy and comparatively cheap.

The Department of Horticulture offers four major lines of work; namely, pomology, olericulture, floriculture, and landscape gardening. Students wishing to specialize in horticulture can arrange to take a general course during the four years, or enough work is offered in each division to allow students to specialize during the last two years in any of the four divisions. The courses have been planned to cover such subject matter that upon their

completion students should be fitted to engage in commercial work, or county agent work, or for teaching and investigational work in the State and Federal institutions.

The department has at its disposal near the college about ten acres of ground devoted to vegetable gardening, eighteen acres of orchards, small fruits, and vineyards, and twelve greenhouses, in which flowers and forcing crops are grown. In addition to the land near the college, the department has acquired 270 acres of land, about three miles from the college, which is being used for experimental and teaching purposes. Members of the teaching staff are likewise members of the experiment station staff, and hence students have an opportunity to become acquainted with the research which the department is carrying on. Excellent opportunity for investigating new problems is afforded to advanced under-graduates and to graduate students.

Students who intend to specialize in pomology or olericulture are required to take the same subjects which other agricultural students take during the first two years. Students who specialize in floriculture or landscape gardening, however, will take slightly different curricula. It is felt that such students require certain special courses, which it is unnecessary to require of all agricultural students. The curricula follow:

Pomology

	Semester I	Semester II
Junior Year		
Principles of Economics (Econ. 3s)	—	3
Systematic Pomology (Hort. 2f)	3	—
Small Fruit Culture (Hort. 4s)	—	2
Fruit and Vegetable Judging (Hort. 5f)	2	—
Expository Writing (Eng. 5f and 6s)	2	2
General Plant Physiology (Plt. Phy. 1f)	4	—
General Floriculture (Hort. 21s)	—	2
Diseases of Plants (Plt. Path. 1f)	3	—
Introductory Entomology (Ent. 1s)	—	3
Genetics (Gen. 101f)	3	—
Electives	—	3
	17	15
Senior Year		
Commercial Fruit Growing (Hort. 101f)	3	—
Economic Fruits of the World (Hort. 102f)	2	—
Horticultural Seminar (Hort. 43y)	1	1
General Landscape Gardening (Hort. 31s)	—	2
Farm Management (F. M. 2f)	4	—
Horticultural Breeding Practices (Hort. 41s)	—	1
Horticultural Research and Thesis (Hort. 42y)	2	2
Electives	4	10
	16	16

Olericulture

	Semester I	Semester II
Junior Year		
Principles of Economics (Econ. 3s)	—	3
Small Fruit Culture (Hort. 4s)	—	2
Diseases of Plants (Plt. Path. 1f)	3	—
Genetics (Gen. 101f)	3	—
Expository Writing (Eng. 5f and 6s)	2	2
General Floriculture (Hort. 21s)	—	2
General Plant Physiology (Plt. Phy. 1f)	4	—
Fruit and Vegetable Judging (Hort. 5f)	2	—
Truck Crop Production (Hort. 12f)	3	—
Vegetable Forcing (Hort. 13s)	—	3
Introductory Entomology (Ent. 1s)	—	3
	—	—
	17	15
Senior Year		
Farm Management (F. M. 2f)	4	—
General Landscape Gardening (Hort. 31s)	—	2
Horticultural Breeding Practices (Hort. 41s)	—	1
Tuber and Root Crops (Hort. 103f)	2	—
Systematic Olericulture (Hort. 105f)	3	—
Advanced Truck Crop Production (Hort. 104s)	—	2
Horticultural Research and Thesis (Hort. 42y)	2	2
Horticultural Seminar (Hort. 43y)	1	1
Electives	4	8
	—	—
	16	16

Floriculture

	Semester I	Semester II
Sophomore Year		
Elements of Organic Chemistry (Chem. 12f)	4	—
Agricultural Chemical Analysis (Chem. 13s)	—	3
General Plant Physiology (Plt. Phy. 1f)	4	—
Geology (Geo. 1f)	3	—
Soil Management (Soils 2s)	—	3
General Landscape Gardening (Hort. 31s)	—	2
Elementary Pomology (Hort. 1f)	3	—
Basic R. O. T. C. (M. I. 2y)	2	2
Electives	—	6
	—	—
	16	16

	Semester I	Semester II
Junior Year		
*Greenhouse Management (Hort. 22y)	3	3
Floricultural Practice (Hort. 23y)	2	2
Floricultural Trip (Hort. 27s)	—	1
*Greenhouse Construction (Hort. 24s)	—	2
*Garden Flowers (Hort. 26f)	3	—
Expository Writing (Eng. 5f and 6s)	2	2
Principles of Economics (Econ. 3s)	—	3
Diseases of Plants (Plt. Path. 1f)	3	—
Systematic Botany (Bot. 3s)	—	2
Elements of Landscape Design (Hort. 32f)	3	—
Electives	—	1
	—	—
	16	16
Senior Year		
*Commercial Floriculture (Hort. 25y)	3	3
Plant Materials (Hort. 106y)	2	3
Vegetable Forcing (Hort. 13s)	—	3
Agricultural Economics (A. E. 2f)	3	—
Horticultural Breeding Practices (Hort. 41s)	—	1
Horticultural Seminar (Hort. 43y)	1	1
Horticultural Research and Thesis (Hort. 42y)	2	2
Diseases of Ornamentals (Plt. Path. 105s)	—	2
Electives	5	1
	—	—
	16	16

Landscape Gardening

Freshman Year		
Gen. Chem. and Qual. Anal. (Chem. 1y)	4	4
General Zoology (Zool. 1f)	4	—
General Botany (Bot. 1s)	—	4
Composition and Rhetoric (Eng. 1y)	3	3
Reading and Speaking (P. S. 1y)	1	1
Algebra (Math. 1f); Plane Trigonometry (Math. 2s)	3	3
Basic R. O. T. C. (M. I. 1y)	1	1
	—	—
	16	16
Sophomore Year		
French or German	3	3
General Plant Physiology (Plt. Phy. 1f)	4	—
Geology (Geol. 1f)	3	—
Soil Management (Soils 2s)	—	3
Plane Surveying (Surv. 1f and 2s)	1	2
*General Landscape Gardening (Hort. 31s)	—	2
Expository Writing (Eng. 5f and 6s)	2	2
Engineering Drafting (Dr. 1y)	1	1
Basic R. O. T. C. (M. I. 2y)	2	2
Electives	—	1
	—	—
	16	16
Junior Year		
Elementary Pomology (Hort. 1f)	3	—
†Plant Materials (Hort. 106y)	2	3
†History of Landscape Gardening (Hort. 35f)	1	—
*Elements of Landscape Design (Hort. 32f)	3	—
†Landscape Design (Hort. 33s)	—	3
†Garden Flowers (Hort. 26f)	3	—
Principles of Economics (Econ. 3s)	—	3
Diseases of Plants (Plt. Path. 1f)	3	—
Systematic Botany (Bot. 3s)	—	2
Farm Drainage (F. Mech. 107s)	—	2
Electives	1	3
	—	—
	16	16
Senior Year		
†Landscape Design (Hort. 34f)	3	—
†Landscape Construction and Maintenance (Hort. 36f)	1	—
†Civic Art (Hort. 37s)	—	2
Horticultural Research and Thesis (Hort. 42y)	2	2
Horticultural Seminar (Hort. 43y)	1	1
Electives	9	11
	—	—
	16	16

* Courses taken by both juniors and seniors in alternate years.

* Courses taken by both sophomores and juniors in alternate years.
† Courses taken by both juniors and seniors in alternate years.

POULTRY HUSBANDRY

The course in Poultry Husbandry is designed to give the student a broad view of the practices of poultry raising. Those students who expect to develop into teachers, extension workers, or investigators should choose as electives such subjects as psychology, economic history, sociology, philosophy, political science, and kindred subjects.

Junior Year	*Semester I*	*II*
Poultry Production (Poultry 103 s)	—	4
Expository Writing (Eng. 5f and 6 s)	2	2
General Bacteriology (Bact. 1f and 2 s)	3	3
Genetics (Gen. 101f)	3	—
Poultry Keeping (Poultry 102f)	4	—
Principles of Economics (Econ. 3 s)	—	3
Electives	4	4
	16	16

Senior Year		
Agricultural Economics (A. E. 2f)	3	—
Farm Management (F. M. 2f)	4	—
Farm Accounting (F. M. 1 s)	—	4
Animal Hygiene (Bact. 108 s)	—	3
Poultry Breeds (Poultry 104 f)	4	—
Poultry Management (Poultry 105 s)	—	4
Marketing of Farm Products (A. E. 102 s)	—	3
Electives	5	2
	16	16

SPECIAL STUDENTS IN AGRICULTURE

Mature students who have fulfilled the regular college entrance requirements and 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 each individual. 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, fruitgrowers, gardeners, or other especially interested persons who are able to get away from their work at some time during the year.

In case such persons find it possible to remain in attendance for a full semester or for a full year, they may arrange to audit (that is, to attend regularly without credit) a full schedule of studies in the Agricultural College.

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.

COMBINED PROGRAM IN AGRICULTURE AND VETERINARY MEDICINE

By arrangement with the Veterinary School of the University of Pennsylvania, students who wish to specialize in veterinary medicine may pursue a combined six year program of study. The first three years of this program are taken at College Park. The last three years are taken at the Veterinary School of the University of Pennsylvania. After successful completion of the three years' work at the University of Maryland and the first year's work at the University of Pennsylvania, the student receives his B. S. degree from the University of Maryland. After successful completion of the last two years' work at the University of Pennsylvania he receives his degree in Veterinary Medicine from the Veterinary School.

AGRICULTURAL EXPERIMENT STATION

HARRY J. PATTERSON, *Director.*

The agricultural work of the University naturally comprises three fields: research, instruction, and extension. The Agricultural Experiment Station is the research agency of the University, which has for its purpose the increase of knowledge relating to agriculture, primarily for the direct benefit of the farmer. It is also the real source of agricultural information for use in the classroom and for demonstrations in the field.

The Experiment Station work is supported by both State and Federal appropriations. The Hatch Act, passed by Congress in 1887, appropriates $15,000 annually; the Adams Act, passed in 1906, provides $15,000 annually; and the Purnell Act, passed in 1925, provides $60,000 annually. The State appropriation for 1930 is $74,000.

The objects, purposes, and work of the Experiment Stations as set forth by these acts are as follows:

"That it shall be the object and duty of said Experiment Stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories."

The Purnell Act also permits the appropriation to be used for conducting investigations and making experiments bearing on the manufacture, preparation, use, distribution, and marketing of agricultural products, and for such economic and sociological investigations as have for their purpose the development and improvement of the rural home and rural life.

The Maryland Station, in addition to the work conducted at the University, operates a sub-station farm of fifty acres at Ridgely, Caroline County, and a farm of about sixty acres at Upper Marlboro for tobacco investigations. Experiments in co-operation with farmers are conducted at many

different points in the State. These tests consist of studies with soils, fertilizers, crops, orchards, insect and plant disease control, and stock feeding.

The results of the Experiment Station work during the past quarter of a century have developed a science of agriculture to teach, and have laid a broad and substantial foundation for agricultural development. The placing of agricultural demonstrations and extension work on a national basis has been the direct outgrowth of the work of the Experiment Stations.

The students taking courses in agriculture are kept in close touch with the investigations in progress.

EXTENSION SERVICE

T. B. SYMONS, *Director*

The Extension Service is that branch of the University of Maryland, established by Federal and State law, which is designed to assist the farmer and his family in promoting the prosperity and welfare of agriculture and rural life. Its work is conducted in co-operation with the United States Department of Agriculture.

The Extension Service is represented in each county of the State by a county agent and in all but a few counties by a home demonstration agent. Through these agents and its staff of specialists, the Extension Service comes into intimate contact with rural people and with the problems of the farm and home.

Practically every phase of agriculture and rural home life comes within the scope of the work undertaken by the Extension Service. Farmers are supplied with details of crop and livestock production, and with instructions for controlling disease and insect pests; they are encouraged and aided in organized effort, helped with marketing problems, and in every way possible assisted in improving economic conditions on the farm.

Rural women are likewise assisted in the problems of the home. They are made acquainted with time and labor-saving devices, with simpler and easier methods of work, with new knowledge of foods, with new ideas about home furnishing, with practical methods of home sewing and millinery construction, and with such other information as tends to make rural home life attractive and satisfying.

For rural boys and girls, the Extension Service provides a valuable type of instruction in agriculture and home economics through its 4-H Club work. The instruction is incident to actual demonstrations conducted by the boys and girls themselves. These demonstrations, under supervision of the county and home demonstration agents, are the best possible means of imparting to youthful minds valuable information in crop and livestock production and in the household arts. The 4-H Club work, moreover, affords rural boys and girls a very real opportunity to develop the qualities of self-confidence, perseverance, and leadership.

The Extension Service works in accord with all other branches of the University of Maryland and with all agencies of the United States Department of Agriculture. It co-operates 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 every way possible in making effective the regulatory work and other measures instituted by the State Board of Agriculture.

COLLEGE OF ARTS AND SCIENCES

T. H. TALIAFERRO, *Dean*

The College of Arts and Sciences provides four years of liberal training in biological sciences, economics and business administration, history, languages and literature, mathematics, philosophy, physical sciences, political science, psychology, and sociology. It thus affords an opportunity to acquire a general education which shall serve as a foundation for success in whatever profession or vocation the student may choose. It particularly prepares the ground and lays the foundation for the learned professions of law, medicine, theology, teaching, and even the more technical professions of engineering, public health service, and business administration. Through the aid which it furnishes other colleges of the University it aims to give the students of these colleges the broad outlook necessary for liberal culture and for public service.

This College is a development of the Division of Language and Literature of the Maryland State College, and later of the School of Liberal Arts of the University. In 1921 the School of Liberal Arts, the School of Chemistry, and other departments of physical and biological sciences were combined into the present College of Arts and Sciences, which thus became a standardized Arts and Sciences College.

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, "Entrance."

For admission to the pre-medical and pre-dental curricula 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 pre-medical curriculum will be found under the School of Medicine.

Departments

There are eleven university departments under the administrative control of the College of Arts and Sciences: Classical Languages, Chemistry, Economics and Sociology, English, History and Political Science, Mathematics, Modern Languages, Philosophy, Physics, Public Speaking, and Zoology and Aquiculture. In addition to these, there are other departments, which, although they are under the control of other colleges of the University, furnish instruction for the College of Arts and Sciences. They are:

Bacteriology, Botany, Entomology, Geology, Military Science, Physical Education, and Psychology. Students in this college are also permitted to elect courses in the Colleges of Agriculture, Education, Engineering, and Home Economics as indicated on page 86.

Degrees

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

The baccalaureate degree from the College of Arts and Sciences may be conferred upon a student who has satisfied all entrance requirements and has secured credit for a minimum of 127 credit hours, including six hours of military science for all able-bodied men students, six hours of physical education for all women students and such male students as are excused from military science, and one hour of library science for all students except those taking the special curricula and the combined courses in which there are other requirements. Students who have received eight credits for military science or physical education are required to complete 129 credit hours for graduation.

Graduates of this college who have completed the regular course are awarded the degree of Bachelor of Arts, except that, upon request, any student who has met the requirements for that degree may be awarded the degree of Bachelor of Science, provided the major portion of the work has been done in the field of science and the application has the approval of the department in science 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 Arts or 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 may be awarded the degree of Bachelor of Science upon the completion of the full course. 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 full-time law courses, or its equivalent, in the School of Law.

The last thirty hours of Arts and Science courses in all the combined programs *must* be completed in residence at College Park. Likewise, the *last* thirty hours of the regular course leading to a degree *must* be taken in College Park.

Normal Load

The normal load for the freshman year is sixteen hours a week for the first semester, including one hour of library science and one hour of military science or physical education, and seventeen hours for the second semester. The sophomore load is seventeen hours per semester, two hours of which are military science or physical education.

The normal load for the junior and senior years is fifteen hours.

Absolute Maximum

Students whose average grade for the *preceding year* is a B or above may, with the approval of the Dean, be permitted to take additional hours for credit; *but in no case shall the absolute maximum of 19 hours per week be exceeded.* In the majority of cases it is better for the student to put in four full years in meeting the requirements for a degree than to try to cover the course in a shorter period by taking additional hours.

Freshman-Sophomore Requirements

(a) Before the beginning of the junior year the student not taking a special curriculum must have completed sixty credit hours in basic subjects and from three to five of these hours *must* be taken from each of six of the eight groups described below under major and minor requirements.

(b) Not more than twenty of these hours may be taken in one department.

(c) Freshmen and sophomores may not carry more than twelve hours in one group at a time.

	Semester	
	I	*II*
Freshman Program		
Composition and Rhetoric (Eng. 1y)	3	3
*Foreign Language	3	5–3
Science (Biological or Physical)	4	4
Reading and Speaking (P. S. 1 y)	1	1
Basic R. O. T. C. (M. I. 1 y) or Physical Education (Phys. Ed. 1 y)	1	1
Library Methods (L. S. 1 f)	1	—
Freshman Lectures	—	—
Elect one of the following:		
**Elementary Social Sciences (Soc. Sci. 1 y)		
***Mathematics* (Math. 1 f and 2 s)		
Modern European History (H. 1 y)	3	3
History of England and Greater Britain (H. 3 y)		
Elements of Literature (Eng. 2 y)		
	—	—
Total hours	16	17

Sophomore Year

The curriculum of the sophomore year has been arranged on the basis of a wider election of courses than has heretofore prevailed, but the selection of these courses must be strictly within the limits set forth above under Freshman-Sophomore requirements.

* Three hours throughout year only when entered in second year of language. The remaining two hours in the second semester then become elective.
** Advisable for the advanced courses in Economics, Government, and Sociology.
*** Prerequisite to Physics and necessary for students pursuing advanced courses in Chemistry. Math. 3 f and 4 s may be elected by students having the prerequisites.

Major and Minor Requirements

For the purpose of choosing major and minor fields of study, the courses of instruction open to students in the College are divided into eight groups. During this academic year minors only may be carried in Groups II and VII.

GROUPS

I.	Biological Sciences	Botany Zoology* Bacteriology Entomology
II.	Classical Languages and Literatures	Latin Greek
III.	English Language and Literature	English Language English Literature Public Speaking
IV.	History and Social Sciences	Economics History Political Science Sociology
V.	Mathematics	Pure Mathematics Applied Mathematics Astronomy
VI.	Modern Languages and Literatures	French German Spanish
VII.	Philosophy, Psychology, and Education	
VIII.	Physical Sciences	Chemistry Geology Physics

(a) A *major* shall consist of not less than 20 and not more than 40 hours in a *university department*, and not less than 30 and not more than 60 in the *group* including the principal department.

(b) A *minor* shall consist of not less than 20 and of not more than 30 credit hours in a *group* related to the *major group*, not more than 25 of which shall be in any one department. Any hours taken in excess of this maximum in the *minor group* will not count as credit hours toward a degree. The *minor* must have the recommendation of the head of the principal department in the *major group*.

(c) At the beginning of the junior year each student (except those following prescribed curricula) must select a major in one of the groups as indicated in (a) and before graduation must complete one major and one minor. In certain exceptional cases two minors may be allowed, but in no case will any hours above the maximum of 30 in either minor be counted for credit toward a degree.

(d) The courses constituting a major must be chosen under the supervision of the faculty of the department in which the major work is done, and *must* include a substantial number of courses *not open* to freshmen and sophomores.

* Students selecting Zoology as the principal department in the major group must take in General Botany or its equivalent a course of four semester credit hours.

Specific Requirements for Graduation

Before graduation the following specific requirements must be completed by all students except those pursuing prescribed curricula.

A. Military Science or Physical Education, 1y and 2y, six hours.

B. Library Science, 1f, one hour.

C. Group Requirements:

I. *English*—The required course in Composition and Rhetoric and two hours of Public Speaking. In addition at least a one-semester course must be taken in some form of advanced composition or in literature.

II. *Foreign Languages and Literatures*—If a student enters the University with but two units of language or less, he must pursue the study of foreign language for two years. If three or more units of foreign language are offered for entrance, he must continue the study of foreign language for one year. Students who offer two units of a foreign language for entrance, but whose preparation is not adequate for the second year of that language, receive only half credit for the first year's course.

III. *History and the Social Sciences*—At least twelve hours of history, economics, political science, or sociology, which shall include at least a year's course in history other than State history.

IV. *Mathematics and Natural Sciences*—A minimum requirement of eight hours of laboratory science with a minimum of eleven hours in this group.

V. *Education, Philosophy, and Psychology*—Six hours, with at least one course in Philosophy or Psychology.

Completion of Specific Requirements

It is strongly recommended that students complete as much of the above specific prescribed work by the end of the sophomore year as can be taken without interfering with the general Freshman-Sophomore Requirements. All of the specific requirements for graduation must be met before a student may be admitted to full senior standing.

Junior-Senior Requirements

The work in the junior and senior years is elective within the limits set by the Major and Minor Requirements and the completion of the Specific Requirements as outlined above.

Students With Advanced Standing

Students entering the junior year of the College of Arts and Sciences with advanced standing from other universities or from other colleges of this university will be required to meet the requirements respecting studies of the first two years only to the extent of their deficiences in credits in Arts and Science subjects for full junior standing. Scholarship requirements as outlined in Section I of this catalogue will apply to all courses offered for advanced standing.

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 of the University.

The number of semester hours accepted from the various colleges is as follows:

College of Agriculture—Fifteen.*
College of Education—Twenty.
College of Engineering—Fifteen.
College of Home Economics—Twenty.
School of Law—Thirty in combined program.
School of Medicine—Thirty in combined program.
School of Nursing—Two years in combined program.

Student Responsibility

The individual student will be held responsible for the selection of the courses and the major in conformity with the preceding regulations.

Advisers

Each student may be assigned to a member of the faculty as his personal adviser, who will assist him in the selection of his courses, the arrangement of his schedule, and any other matters on which he may need assistance or advice. The faculty adviser acts in this capacity as assistant and representative of the Dean, who is charged with the execution of all of the foregoing rules and regulations. The faculty adviser of juniors and seniors is the Head of the principal department of the group which has been selected for a major.

* Students electing Botany, Bacteriology, or Entomology as the principal department in the major group are not limited to fifteen hours.

SPECIAL CURRICULA

Special curricula are provided in Chemistry and Business Administration, and for the Pre-Medical, Pre-Dental, and Pre-Law courses. They are also provided for the combined programs in Arts and Nursing and Arts and Law.

CHEMISTRY

The Department of Chemistry includes the divisions of Inorganic, Organic, Analytical, Agricultural, Industrial, and Physical Chemistry, together with the State Control Work.

Courses in these several branches of the science are arranged with a view to the following:

(1) Contributing toward the liberal education of the arts student;

(2) Laying the scientific foundation necessary for the professions of medicine, dentistry, pharmacy, engineering, agriculture, etc.;

(3) Offering training for the pursuit of chemistry as a career.

It should be noted that the chemical curricula hereinafter outlined are designed primarily to insure adequate instruction in the fundamentals of the science. At the same time it has been considered desirable to preserve as high a degree of flexibility as possible in order to afford the student who has a definite end in view an opportunity to fit his course to his actual needs. In general it may be said that the curricula offered prepare students to enter the following fields:

1. *Industrial Chemistry*—Curriculum II furnishes basic training, which, in conjunction with subsequent industrial experience or graduate work, should prepare the student to undertake plant control, plant management, or plant development work.

2. *Agricultural Chemistry*—Curriculum III may be adjusted, through the intelligent selection of electives, to fit the student for work in agricultural experiment stations, soil bureaus, geological surveys, food laboratories, industries engaged in the processing or handling of food products, and the fertilizer industries.

3. *General Chemistry*—Curriculum I offers a more liberal selection of science and arts subjects and, through co-operation with the College of Education, may be supplemented with the work in education necessary to obtain a State high-school teacher's certificate. To prepare for college teaching, graduate work leading to a higher degree is necessary.

4. *Chemical Research*—Preparation for research in chemistry is also based upon Curricula I, II, and III. It is advisable that elections be made largely from courses in chemistry and the allied sciences. Graduate work is essential (See Graduate School).

5. *State Control Laboratory*—The State Control Laboratory is authorized to enforce the State Regulatory Statutes controlling the purity and truthful labeling of all feeds, fertilizers, and limes that are offered or exposed for sale in Maryland. The specific laws involved are the Feed Stuff

Law of Maryland, in effect June 1, 1920; The Fertilizer Law of Maryland, in effect June 1, 1922; and the Lime Inspection Law of Maryland, in effect June 1, 1912.

I. GENERAL CHEMISTRY

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Modern Language (French or German)	3	3
Mathematics (Math. 1f and 2s)	3	3
General Chemistry (Chem. 1y)	4	4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1 y)	1	1
Electives	3	3
Freshman Lectures	—	—
	17	17
Sophomore Year		
Qualitative Analysis (Chem. 2y)	4	4
General Physics (Phys. 1y)	4	4
Mathematics (Math. 5f and 6s)	3	3
Advanced Composition and Rhetoric (Eng. 3f and 4s)	2	2
American History (H. 2y)	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 2 y)	2	2
	—	—
	18	18
Junior Year		
Quantitative Analysis (Chem. 6y)	5	5
Organic Chemistry (Chem. 8s)	—	5
Principles of Economics (Econ. 3f)	3	—
General Bacteriology (Bact. 1f)	3	—
Electives (Arts and Sciences or Education)	4	5
	—	—
	15	15
Senior Year		
Physical Chemistry (Chem. 102y)	5	5
Advanced Organic Chemistry (Chem. 116y)	4	4
Electives in Chemistry	3	3
Electives (Arts and Sciences or Education)	3	3
	—	—
	15	15

II. INDUSTRIAL CHEMISTRY

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1 y)	3	3
Modern Language (German or French)	3	3
Mathematics (Math. 3f and 4s)	5	5
General Chemistry (Chem. 1y)	4	4
Reading and Speaking (P. S. 1y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
Freshman Lectures	—	—
	—	—
	17	17
Sophomore Year		
Mathematics (Math. 7y)	5	5
General Physics (Phys. 2y)	5	5
Qualitative Analysis (Chem. 2y)	4	4
Advanced Composition and Rhetoric (Eng. 3f and 4s)	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 2y)	2	2
	—	—
	18	18
Junior Year		
Quantitative Analysis (Chem. 6y)	5	5
Organic Chemistry (Chem. 8s)	—	5
General Bacteriology (Bact. 1f)	3	—
Theoretical Mechanics (Math. 104s)	—	3
Principles of Economics (Econ. 3f)	3	—
Electives	4	2
	—	—
	15	15
Senior Year		
Physical Chemistry (Chem. 102y)	5	5
Advanced Organic Chemistry (Chem. 116y)	4	4
Industrial Chemistry (Chem. 110y)	3	3
Advanced Physics (Phys. 103f)	3	—
Gas Analysis (Chem. 112s)	—	3
	—	—
	15	15

III. AGRICULTURAL CHEMISTRY

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Modern Language (French or German)	3	3
Mathematics (Math. 1f and 2s)	3	3
General Chemistry (Chem. 1y)	4	4
Electives	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
Freshman Lectures	—	—
	—	—
	17	17
Sophomore Year		
GeneralPhysics (Phys. 1y)	4	4
Mathematics (Math. 3f and 4s)	3	3
Qualitative Analysis (Chem. 2y)	4	4
General Zoology (Zool. 1f)	4	—
General Botany (Bot. 1s)	—	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 2y)	2	2
	—	—
	17	17
Junior Year		
Quantitative Analysis (Chem. 6y)	5	5
Plant Physiology (Plt. Phy. 1f)	4	—
Elementary Organic Chemistry (Chem. 8s)	—	5
General Bacteriology (Bact. 1s)	—	3
Principles of Economics (Econ. 3f)	3	—
Advanced Composition and Rhetoric (Eng. 3f and 4s)	2	2
Reading and Speaking (P. S. 1y)	1	—
	—	—
	15	15
Senior Year		
Physical Chemistry (Chem. 102y)	5	5
Advanced Organic Chemistry (Chem. 116y)	4	4
General Physiological Chemistry (Chem. 104f)	4	—
Chemistry of Nutrition (Chem. 108s)	—	4
Electives	2	2
	—	—
	15	15

Co-operative Program in Chemistry

By the proper arrangement of the courses of study outlined above, students of high average ability can by utilizing their summers, take a four year course leading to a B. S. degree in Chemistry, and at the same time earn sufficient money to meet a part of their expenses during the last two years. This is made possible by securing employment as assistants in the Department of Chemistry and in certain industries in the State.

Since the co-operative program does not begin until after the completion of two and one half years of college work, most of the student's work in departments other than the chemistry department has been completed. On the other hand, if these non-technical courses have not been finished no real difficulty arises, for the shifts are made between semesters. It may be further noted that while a junior is studying, a senior is working, and vice versa. In this way the position is manned continuously, and each student gets one year of practical experience during his final years in college.

BUSINESS ADMINISTRATION

The aim of this curriculum is to afford those who propose to enter business as a career a training in the general principles of business. The work is based on the view that through a study of the best business methods there may be obtained valuable mental discipline and at the same time a knowledge of business technique which will make for a successful business career. Business demands today particularly men who are broadly trained, and not men narrowly drilled in routine. Hence, two years of liberal college training are very desirable for students intending to enter a business career. The curriculum provides for this broad cultural background as well as the special training in business subjects.

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Foreign Language (German, French, or Spanish)	3	3
Science (Chemistry, Zoology, or Botany)	4	4
Elementary Social Sciences (Soc. Sci. 1y)	3	3
Mathematics (Math. 1 f and 2 s)	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
Library Methods (L. S. 1 s)	—	1
Freshman Lectures	—	—
	—	—
	17	18
Sophomore Year		
American History (H. 2y)	3	3
Economic Geography and Industry (Econ. 1 f)	3	—
History of World Commerce (Econ. 2 s)	—	3

	Semester I	Semester II
Principles of Economics (Econ. 3 f and 4 s)	3	3
Business English (Eng. 17 f and 18 s)	2	2
Elements of Psychology (Psych. 1 s)	—	3
Reading and Speaking (P. S. 1y)	1	1
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 2y)	2	2
*Electives	3	—
	17	17
Junior Year		
Introductory Accounting (Econ. 109y)	3	3
Business Organization and Operation (Econ. 105 f)	2	—
Corporation Finance (Econ. 106 s)	—	2
Business Law (Econ. 107 f and 108 s)	3	3
Money and Credit (Econ. 101 f)	2	—
Banking (Econ. 102 s)	—	2
Mathematical Theory of Investment (Math. 101 f)	3	—
Elements of Statistics (Math. 102 s)	—	3
*Electives	2	2
	15	15
Senior Year		
Investments (Econ. 103 f)	3	—
Life Insurance (Econ. 113 s) or Property Insurance (Econ. 114 s)	—	2
Foreign Trade (Econ. 116 s)	—	3
Marketing Methods (Econ. 117 f)	3	—
*Electives	9	10
	15	15

THE PRE-MEDICAL CURRICULUM

The minimum requirement for admission to the School of Medicine of the University of Maryland is 60 semester hours of prescribed courses, exclusive of military drill or physical education. The subjects and hours prescribed by the Council on Medical Education of the American Medical Association are covered in the first two years of the Pre-Medical Curriculum. In view of the fact, however, that about five times as many students, most of whom have a baccalaureate degree, apply for admission to the School of Medicine of the University as can be accommodated, students are strongly urged to complete the full three-year curriculum before making application for entrance.

* Electives must be chosen first to fulfill the Specific Requirements for Graduation; then from approved courses in the College of Arts and Sciences, Engineering, Education, or Agriculture. In the senior year at least three hours in each semester must be elected in Economics.

Preference will be given students requesting entrance to the School of Medicine of the University who present the credits obtained by the successful completion of the three-year curriculum or its equivalent of 97 semester hours. To meet the recommendation of the Pre-Medical Committee a student must complete the curriculum with an average grade of "C" or above, and must otherwise satisfy the Committee that he is qualified by character and scholarship to enter the medical profession.

Another advantage the three-year curriculum offers over the minimum requirement of 67 hours is that the students successfully completing this program are awarded the degree of Bachelor of Arts or Bachelor of Science, on the recommendation of the Dean of the School of Medicine, after the completion of the first year's work in the Medical School. This combined program of seven years leads to the degree of Doctor of Medicine upon the completion of the full course. The first three years are taken in residence at College Park, and the last four in Baltimore in the School of Medicine. At least one year of residence at College Park is necessary for students transferring from other colleges and universities who wish to become candidates for the combined degrees. Only in exceptional cases will students who have been less than two years in residence at College Park be recommended for preference in admission to the School of Medicine.

For requirements for admission see Section I, "Entrance."

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Mathematics (Math. 1 f and 2 s)	3	3
Elements of Zoology (Zool. 2 f and 3 s)	4	4
General Chemistry (Chem. 1y)	4	4
Reading and Speaking (P. S. 1y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
Library Methods (L. S. 1 s)	—	1
Freshman Lectures	—	—
	16	17
Sophomore Year		
General Physics (Phys. 1y)	4	4
*Elementary Organic Chemistry (Chem. 8 f or s) / *Quantitative Analysis (Chem. 4 f or s)	4	5
Elements of Psychology (Psych. 1 s)	—	3
Comparative Vertebrate Morphology (Zool. 8 f)	4	—
Modern Language (French or German)	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 2y)	2	2
	17	17

* Quantitative Analysis may be given in the first semester and Elementary Organic Chemistry in the second semester.

	Semester	
Junior Year		
**Elementary Social Sciences (Soc. Sci. 1y)	2	2
Advanced Composition and Rhetoric (Eng. 3 f and 4 s)	2	2
Elementary Physical Chemistry (Chem. 10y)	3	3
General Physiological Chemistry (Chem. 104 f)	4	—
Embryology (Zool. 101 s)	—	4
Electives	4	4
	15	15

Senior Year

The curriculum of the first year of the School of Medicine. The students also may elect the fourth year's work from advanced courses offered in the College of Arts and Sciences, provided the Specific Requirements for Graduation have been met.

PRE-DENTAL CURRICULUM

Students taking one year of work in the College of Arts and Sciences may be admitted to the second year of the five-year course of the School of Dentistry, provided the following program of studies has been followed:

	Semester	
Freshman Year	*I*	*II*
Composition and Rhetoric (Eng. 1y)	3	3
Elements of Zoology (Zool. 2 f and 3 s)	4	4
Mathematics (Math. 1 f and 2 s)	3	3
General Chemistry (Chem. 1y)	4	4
Reading and Speaking (P. S. 1y)	1	1
Library Methods (L. S. 1 s)	—	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
Freshman Lectures	—	—
	16	17

If a second year of pre-dental education is completed in the College of Arts and Sciences, it should include the following courses: General Physics (Phys. 1y) and Elementary Organic Chemistry (Chem. 8 f or s). The balance of the program will be made up of approved electives.

** See page 178 regarding credit.

FIVE-YEAR COMBINED ARTS AND NURSING CURRICULUM

The first two years of this course 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 the course must be completed in College Park.

The remaining three years are taken in the School of Nursing in Baltimore or in the Training School of Mercy Hospital, Baltimore. The degree of Bachelor of Science and the Diploma in Nursing are granted at the end of the five-year course. Full details regarding this course may be found in the section of the catalogue dealing with the School of Nursing.

	Semester	
Freshman Year	*I*	*II*
Composition and Rhetoric (Eng. 1y)	3	3
Foreign Language	3	3
General Chemistry (Chem. 1y)	4	4
Elementary Social Sciences (Soc. Sci. 1y)	3	3
Elementary Foods (H. E. 31y)	3	3
Physical Education (Phys. Ed. 1y)	1	1
Freshman Lectures	—	—
	17	17
Sophomore Year		
English Literature or History	3	3
Organic and Food Chemistry (Special Course)	3	—
Nutrition (Special Course)	—	3
Principles of Economics (Econ. 3 f)	3	—
Elements of Psychology (Psych. 1 s)	—	3
General Zoology (Zool. 1f)	4	—
Reading and Speaking (P. S. 1y)	1	1
Physical Education (Phys. Ed. 2y)	2	2
Electives	1	5
	17	17

COMBINED PROGRAM IN ARTS AND LAW

Since September, 1927, the Law School of the University has required two years of academic credit for admission to the school, or sixty-seven 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 in college and pre-legal subjects 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 pre-legal studies as outlined below, and must complete the Specific Requirements for Graduation as indicated elsewhere. 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 awarded. The degree of Bachelor of Laws will be awarded upon the completion of the combined program.

	Semester	
Freshman Year	*I*	*II*
Composition and Rhetoric (Eng. 1y)	3	3
Science or Mathematics	4–3	4–3
History of England and Greater Britain (H. 3y)	3	3
Elementary Social Sciences (Soc. Sci. 1y)	3	3
Latin or Modern Language	4–3	4–3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
Freshman Lectures	—	—
	—	—
	16–18	16–18
Sophomore Year		
Expository Writing (Eng. 5 f and 6 s)	2	2
Principles of Economics (Econ. 3 f and 4 s)	3	3
American History (H. 2y)	3	3
Government of the United States (Pol. Sci. 2 f)	3	—
Elements of Psychology (Psy. 1 s)	—	3
Reading and Speaking (P. S. 1y)	1	1
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 2y)	2	2
*Electives	3	3
	—	—
	17	17

Junior Year

Largely electives, including the completion of the Specific Requirements for Graduation as outlined on page 85.

Senior Year

First year of regular law course.

Students who are unable to take the combined program in Arts and Law may fulfill the entrance requirements of the Law School by completing the first two years of pre-legal studies as outlined in the above combined course.

* Electives should be in English, History, Latin or Modern Languages, Economics or Political Science, or a part of the Specific Requirements for Graduation.

MISCELLANEOUS

LIBRARY SCIENCE

A course in Library Methods is required of students registered in the College of Arts and Sciences.

This course is intended to help students use the library with greater facility. Instruction will be given by practical work with the various catalogues, indexes, and reference books. This course considers the general classification of the library according to the Dewey system. Representative works of each division are studied in combination with the use of the library catalogue. Attention is given to periodical literature, particularly that indexed in the Reader's Guide and in other periodical indexes; and to various much used reference books, which the student will find helpful throughout the college course.

MUSIC

The Department of Music serves students of the University of two general classes: those who make a specialty of the subject with a view to becoming musical artists or music teachers, and those who pursue musical studies for purposes of enjoyment and general culture. For the former group extensive private instruction is provided, with attention to technical development along particular lines; while as large provision as possible is made for all in the various club activities and public lectures and recitals.

For courses in music see Section III, Courses of Instruction.

Voice

Courses in voice culture are offered, covering a thorough and comprehensive study of tone production, based on the Italian method of singing.

The work required to develop a singer is begun with the most fundamental principles of correct breathing. Scale and arpeggio exercises; all intervals; the portamento, legato, and staccato; the trill; and other embellishments to develop the technique of singing are studied through the medium of vocal exercises arranged by the greatest authorities on the voice, under the careful supervision of the instructor.

The study of songs and ballads is adapted to the ability and requirements of each singer, a thorough training in diction and phrasing being given through the medium of sacred and secular ballads.

Such work may be followed by a study of the oratorio and the opera.

Opportunities are afforded all voice pupils who are capable to make public appearances in the regular pupils' recitals, as well as in the churches of the community.

Tuition

One lesson per week, term of eighteen weeks, $24.

The above price for lessons in voice is offered to students of the University who are pursuing regular academic courses. Terms for private instruction outside the University may be secured from the instructor in voice.

Piano

Elementary piano courses. Work for beginners, based on the Leschetizky method.

Advanced piano courses. The college work in piano presupposes three years of preparatory study of the piano, part or all of which may be taken at the University.

Lessons are taken twice a week. A four-year college course is as follows:

First Year—Technical studies based on the modern weight and rotary method: Heller Etudes; Sonatas of Haydn, Mozart, and Beethoven; selections from classic and modern composers.

Second Year—Bach Preludes; concertos by classic masters; Jensen Etudes; selections from classic, romantic, and modern composers.

Third Year—Leschetizky technic; Chopin Preludes and Waltzes; Bach Inventions; Mendelssohn Concertos; Beethoven Sonatas; selections from romantic and modern composers.

Fourth Year—Leschetizky technic; Chopin Etudes; Bach Well-Tempered Clavichord; sonatas and concertos by Grieg, McDowell, Schutt, Beethoven, etc.; concert pieces by modern and romantic composers.

Tuition

One lesson per week, term of eighteen weeks, $24.

Note.—Music tuitions are due in advance. Ten per cent. is added to all tuitions not paid in advance.

COLLEGE OF EDUCATION

WILLARD S. SMALL, *Dean.*

The College of Education was established in 1920. It was organized to meet the needs of the following classes of students: (1) undergraduate students preparing to teach the cultural and the vocational studies in the high schools; (2) advanced students preparing to become high school principals, elementary school principals, educational supervisors, and school administrators; (3) those preparing for educational work in the trades and industries; (4) county agents, home demonstrators, boys and girls club leaders and other extension workers; (5) students majoring in other lines who desire courses in education for their informational and cultural values.

The Summer School, 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.

Departments

The instructional work of the College of Education is conducted by five functional divisions or departments: History and Principles of Education, Methods in Academic and Scientific Subjects, Agricultural Education, Home Economics Education, and Industrial Education.

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."

For additional requirements for admission to the curricula in Agricultural Education and Home Economics Education, see page 105 and page 106, respectively.

Degrees

The degrees conferred upon students who have met the conditions prescribed for a degree in the College of Education are: Bachelor of Arts; 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.

Teachers' Special Diploma

The degrees granted for work done in the College of Education indicate primarily the quantity of work completed. The teachers' special diploma certifies to the professional character of such work. Teachers' special diplomas will be granted only to those who, besides qualifying for a degree,

give promise of superior professional ability as evidenced by their personality, character, experience, and success in supervised teaching.

Teachers' special diplomas are granted in the Biological Sciences, Chemistry, English, French, General High School Science, History and Social Sciences, Mathematics and Physics, Vocational Agriculture, Vocational Home Economics, and Industrial Education.

The recipient of the teachers' special diploma is eligible for certification by the State Superintendent of Schools without examination.

Facilities

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

Supervised Teaching. Actual experience in teaching under competent supervision is of basic importance in the preparation of teachers. Since 1920 a co-operative arrangement with the Prince George's County School authorities has been in effect whereby students preparing to teach get this experience in the Hyattsville High School under instructors employed and paid jointly by the County School Board and the University.

Observation. The observation work necessary for efficient teacher training is conducted in Washington and in nearby Maryland schools.

The nearness of these schools and of the federal offices and libraries in Washington dealing with education provides unusual opportunities for contact with actual classroom situations and current administrative problems in education.

Curricula

The departments of the College of Education fall into two main groups: General Education and Vocational Education. Two types of curricula are offered corresponding with these two major groupings.

General Education. The first of these is designed to prepare teachers of the academic and scientific subjects in high schools. The basic requirements are fixed and definite, but the student may select from a number of subjects the major and minor subjects in which he expects to qualify for teaching. The student may qualify for the degree either of Bachelor of Arts or of Bachelor of Science, depending upon his election of major subject.

The requirements for majors and minors correspond in general with the requirements of the College of Arts and Sciences, but are modified in some respects to adapt them better to the needs of prospective teachers and to satisfy the regulations 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."

Some of the most common combinations of academic subjects in the high schools of the State are: English and History; English and French; History and French; Mathematics and one or more of the high school Sciences.

Vocational Education. The curricula in Vocational Education are designed for the definite purpose of preparing teachers of agriculture, home economics, manual training, and industrial subjects. As the University of Maryland is the institution designated by the State Board of Education for the training of teachers of vocational agriculture, home economics, and trades and industries under the provisions of the Smith-Hughes Vocational Educational Act, the curricula in this class have been organized to meet the objectives set up in the act and in the interpretations of the Federal Board of Vocational Education and the State Board of Education. These curricula lead to the degree of Bachelor of Science.

Guidance in Registration

All students wishing to prepare for teaching should consult the Dean of the College of Education regarding possible combinations and the arrangement of their work. At the time of matriculation each student is expected to make a provisional choice of the subjects which he desires to prepare to teach and to secure the advice and approval of the heads of departments which offer these subjects.

It is advisable for students who purpose to teach 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.

The teachers' special diploma will be awarded only to the student who shall have fulfilled all of the requirements of the curriculum he elects. Students in other colleges desiring to qualify for the teachers' special diploma 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. This is due to the sequence of professional subjects in the junior and senior years.*

Professional Requirements

As an integral part of every curriculum of the College of Education leading to a degree, a minimum of 20 credits in Education is required.

The special requirements peculiar to each curriculum in the College of Education are shown in the tabular statements of the curricula for Arts and Science Education, Agricultural Education, and Home Economics Education.

Certification of High School Teachers

The State Board of Education will certify to teach in the approved high schools of the State only such persons as have had satisfactory professional preparation.

The State Department of Education is stimulating and encouraging instruction in music and athletics in the high schools of the State. In the majority of these schools the instruction in these subjects will have to be carried on by teachers who teach other subjects as well. Training in either or both of these subjects will be valuable for prospective teachers.

ARTS AND SCIENCE EDUCATION

Students electing this curriculum may register either in the College of Education or the College of Arts and Sciences. In any case they will register with the College of Education for the teachers' special diploma.

The teachers' special diploma will be awarded only to those students who have fulfilled 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, preferably by the end of the sophomore year:

(1) Composition and Rhetoric (Eng. 1y), 6 semester hours, and in addition not less than 4 semester hours in English Language or Literature.

(2) Reading and Speaking (P. S. 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 or more years.

(4) Nine semester hours of history and the social sciences, of which six must be history.

(5) Eleven hours of natural science or of natural science and mathematics, of which eight semester hours must be in laboratory science and must include General Zoology (Zool. 1 f or s).

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Educational Guidance (Ed. 1y)	1	1
Reading and Speaking (P. S. 1y)	1	1
R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
*Foreign Language	3	3–5
Science (Biological or Physical)	4	4
(One of the following.)		
Modern European History (H. 1y)	3	3
Elementary Social Sciences (Soc. Sci. 1y)	3	3
Elements of Literature (Eng. 2y)	3	3
Mathematics (Math. 1y)	3	3
	16	16–18

* Three hours throughout the year only when entered in second year of language.

	Semester I	Semester II
Sophomore Year		
Public Education in the United States (Ed. 2f)	2	—
Educational Hygiene (Ed. 3s)	—	2
Basic R. O. T. C. (M. I. 2y), or Physical Education (Phys. Ed. 2y)	2	2
*Foreign Language	3	3
†Electives	10–11	10–11
	17–18	17–18
Junior Year		
Educational Psychology (Ed. 101f)	3	—
Technic of Teaching (Ed. 102s)	—	3
†Electives	13	13
	16	16
Senior Year		
Special Methods and Supervised Teaching (Ed. 110, 111, 112, 113, 114)	3	3
Principles of Secondary Education (Ed. 103s)	—	3
†Electives	12	9
	15	15

Special Requirements

The semester hour requirements detailed below for each of the subjects cover all of the requirements of the State Board of Education (By-law 51) in regard to the number of college credits in any two or more subjects which are to be placed on the high school teacher's certificate.

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

English. For a major in English 36 semester hours are required as follows:

Composition and Rhetoric	6 semester hours
Advanced Composition and Rhetoric	4 semester hours
Reading and Speaking	2 semester hours
Literature	18 semester hours
Electives	6 semester hours
Total	36

For a minor in English 24 semester hours are required:

Composition and Rhetoric	6 semester hours
Advanced Composition and Rhetoric	4 semester hours
Reading and Speaking	2 semester hours
Literature	12 semester hours
Total	24

* For students entering with less than three units in foreign language.
† Determined by "general requirements" and choice of major and minor subjects.

All students with a major or minor in English must complete English 1y, Public Speaking 1y, Advanced Composition and Rhetoric, and History of English Literature by the end of the junior year.

Additional courses required in the major group are The Drama or Shakespeare and 6 hours from the following: The Novel, English and American Essays, Modern Poets, Victorian Poets, Poetry of Romantic Age, American Literature, and Comparative Literature. (The electives for the minor in English must be from this group.)

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

All students with a major or minor in History and Social Sciences must complete Modern European History and American History by the end of the junior year.

Modern Languages. French is the only modern language for which supervised teaching is available. For a major in Modern Languages, 30 semester hours are required if the major is confined to one language; if two languages are included in the major, 42 semester hours†. A minor requires 24 semester hours if confined to one language; 30 semester hours if two languages are included. If both major and minor are taken in modern language the major requires 30, and the minor, 24 semester hours.

All students with a major or minor in History and Social Sciences must the following courses by the end of the junior year: French 1y; French 2s; French 3y; French 8f; French 9s. At least two half courses from the 100 group are also prescribed; they may be taken in either the junior or the senior year. The electives in French necessary to complete the major must be selected from the following: French 6f; French 7s; French 101f; French 102s; French 103f; French 104s; French 105f; French 106s; French 107f; French 108s.

Mathematics. For a major in Mathematics 30 semester hours are required. Twenty semester hours including College Algebra, Trigonometry, Analytics, and Calculus must be completed by the end of the junior year. Additional courses to make up the remaining 10 semester hours will be chosen from those listed on page 212 for advanced undergraduates and graduates.

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* For a minor, the same requirements, less electives.

† If the major includes two languages, at least 30 semester hours must be in French, unless the student entered with two years of high school French. In that case, the French requirement is 22 semester hours and the combined requirement is 34 semester hours. A similar adjustment is made in case of the minor.

For a minor in Mathematics, 20 semester hours are required.

Sciences. Both majors and minors are offered in Chemistry, Physics, and the Biological Sciences. The minimum requirement for a major is 30 semester hours; for a minor, 20 semester hours. In case of a major, not less than 20 semester hours must be completed by the end of the junior year.

AGRICULTURAL EDUCATION

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

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

The electives allowed by this curriculum may be selected from any of the courses offered by the University for which the student has the necessary prerequisites. A student is expected, however, to confine his elections to subjects relating to farming and to teaching. Though a certain amount of specialization in a particular field of agriculture such as animal husbandry, agronomy, pomology, vegetable gardening, agricultural economics, or farm management, is encouraged, students should so arrange their work that approximately forty per cent. of their time will have been spent on technical agriculture, twenty-five per cent. on scientific subjects, twenty per cent. on subjects of a general educational character, and from twelve to fifteen per cent. on subjects in professional education.

Students electing this curriculum may register either in the College of Education or in the College of Agriculture. In either case they will register with the College of Education for the teachers' special diploma. The teachers' special diploma will be awarded only to those students who have fulfilled all the requirements of this curriculum.

Freshman Year	*Semester I*	*II*
Educational Guidance (Ed. 1y)	1	1
General Animal Husbandry (A. H. 1 f)	3	—
Principles of Vegetable Culture (Hort. 11 s)	—	3
General Chemistry (Chem. 1-A y or 1-B y)	4	4
General Botany (Bot. 1 f)	4	—
General Zoology (Zool. 1 s)	—	4
Composition and Rhetoric (Eng. 1y)	3	3
Basic R. O. T. C. (M. I. 1y)	1	1
	—	—
	16	16

Sophomore Year	Semester I	Semester II
Public Education in the United States (Ed. 2 f)	2	—
Diseases of Plants (Plt. Path. 1 f)	3	—
General Entomology (Ent. 1 s)	—	3
Cereal Crop and Forage Crop Production (Agron 1 f and 2 s)	3	3
Geology (Geol. 1 f)	3	—
Soil Management (Soils 2 s)	—	3
Feeds and Feeding (A. H. 2 f)	3	—
Farm Dairying (D. H. 1 s)	—	3
Elementary Pomology (Hort. 1 f)	3	—
Principles of Economics (Econ. 3 s)	—	3
Basic R. O. T. C. (M. I. 2y)	2	2
	19	17
Junior Year		
Educational Psychology (Ed. 101 f)	3	—
Survey of Teaching Methods (Ag. Ed. 100 s)	—	3
Public Speaking (Courses to be arranged)	2	2
Farm Machinery (F. Mech. 101 f)	3	—
Poultry (Poultry 101 s)	—	3
Genetics (Gen. 101 f)	3	—
Grain and Hay Judging (Agron. 4 f)	1	—
Advanced Dairy Cattle Judging (D. H. 3 s)	—	1
General Bacteriology (Bact. 1 s)	—	3
Agricultural Economics (A. E. 2 f)	3	—
Marketing Farm Products (A. E. 102 s)	—	3
Electives	2	2
	17	17
Senior Year		
Teaching Secondary Vocational Agriculture (Ag. Ed. 101 y)	4	4
Rural Life and Education (Ag. Ed. 102 s)	—	3
Farm Shop (F. Mech. 104 f)	1	—
Teaching Farm Shop in Secondary Schools (Ag. Ed. 104 s)	—	1
Principles of Secondary Education (Ed. 103 s)	—	3
Farm Management (F. M. 2 f)	4	—
The Novel (Eng. 122 f and 123 s)	2	2
Electives	3	3
	14	16

HOME ECONOMICS EDUCATION

The Home Economics Education curriculum is for those students who wish to teach vocational home economics, to do home demonstration work,

or to engage in other types of home economics in which teaching may be involved.

This is a general course including work in all phases of home economics—foods, clothing, child care—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: practice house; and special work and observation of children at the Washington Child Research Center.

The teachers' special diploma will be awarded only to those who have fulfilled all requirements of this curriculum.

Freshman Year	Semester I	Semester II
Composition and Rhetoric (Eng. 1y)	3	3
General Chemistry (Chem. 1y)	4	4
Educational Guidance (Ed. 1y)	1	1
Clothing Construction (H. E. 12 s)	—	3
Textile Fabrics (H. E. 11 f)	3	—
Physical Education (Phys. Ed. 1y)	1	1
Electives	3	3
	15	15
Sophomore Year		
Elements of Organic Chemistry (Chem. 12 f)	4	—
*Special Applications of Physics (Phys. 3 s)	—	4
Elementary Foods (H. E. 31y)	3	3
Principles of Design (H. E. 21 f)	3	—
Costume Design (H. E. 24 s)	—	3
Public Education in the United States (Ed. 2 f)	2	—
Physical Education (Phys. Ed. 2y)	2	2
Electives	3	5
	17	17
Junior Year		
Educational Psychology (Ed. 101 f)	3	—
Technic of Teaching (H. E. Ed. 100 s)	—	3
Household Bacteriology (Bact. 3 s)	—	3
Nutrition (H. E. 131 f and 132 s)	3	3
Buying for the Home (H. E. 142 f)	2	—
Advanced Clothing (H. E. 111 f)	4	—
Education of Women (H. E. Ed. 101 s)	—	3
**Electives	5	5
	17	17

* For students who have not had High School Physics.

** Choice of General Zoology, General Botany, or Genetics required for all students in the sophomore or junior year.

Senior Year	Semester I	Semester II
Child Study (H. E. Ed. 102 f)	5	—
Management of the Home (H. E. 141 f)	5	—
Teaching Vocational Home Economics; Methods and Practice (H. E. Ed. 103 f)	5	—
Interior Decoration (H. E. 121 s)	—	3
Principles of Secondary Education (Ed. 103 s)	—	3
Electives	—	9
	15	15

INDUSTRIAL EDUCATION

Three types of curricula are offered in Industrial Education; viz., a four-year curriculum, a two-year curriculum, and a special curriculum.

Four-Year Curriculum in Industrial Education

In addition to the regular entrance requirements of the University, involving graduation from a standard four-year high school, students electing the four-year curriculum in industrial education must be willing to engage in the trades or industries during the three summer vacations, if they have not had an equivalent experience in industry.

The electives allowed by this curriculum may be chosen from any of the courses offered in the University for which the student has the necessary prerequisites.

Two-Year Curriculum in Industrial Education

This curriculum is designed for mature students 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 it is administered flexibly in order that it may be adjusted to the needs of students.

At the completion of the curriculum a diploma is granted.

Special Courses for Teachers of Trades and Related Subjects

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 with the analysis and classification of trade knowledge for instructional purposes, methods of teaching, observation and practice of teaching, organization and management of trade and industrial classes, psychology of trade and industrial education, tests and measurements, history of the development

of industrial education, and occupational information, guidance, and placement.

The completion of eight teacher-training courses, which requires, in general, two years or two hundred and fifty-six clock hours, will entitle a student 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.

A special announcement of the extension courses will be issued in September, 1930, and may be obtained from the office of the Registrar either in Baltimore or in College Park.

COLLEGE OF ENGINEERING

A. N. JOHNSON, *Dean*

Whether a man follows engineering as his life's work or enters other fields, it is well recognized that the training received in the engineering colleges of today affords a splendid preparation for many callings in public and private life outside the engineering profession.

The College of Engineering includes the Departments of Civil, Electrical, and Mechanical Engineering. A few years ago the curricula were considerably changed, the general purpose being to broaden the courses of instruction, that young men may be better prepared to enter industry or the public service. In either field there is abundant opportunity; each demands the electrical, the mechanical, and the civil engineer. Maryland needs men to carry on her great highway work and large public undertakings, as well as to carry on her industries. Such training, therefore, seems preeminently a function of the State's University.

The subject matter of the courses is not essentially different from that usually given. In order to give the time necessary to the technical subjects, as well as to those of a more general character, courses of study are prescribed so that the time in each semester may be used to the best advantage.

The studies prescribed for freshmen and sophomores are practically the same for all branches of engineering. Among the advantages that such a plan has is the very important one that the young man will not be called upon to decide definitely the branch of engineering in which he will specialize until his junior year.

Engineering research is recognized today as one of the most needed useful contributions that the engineering college can make to the State. Work of this character is under way at the University of Maryland, where, through co-operation with the Maryland State Roads Commission and the U. S. Bureau of Public Roads, highway research problems are being studied, the solution of which will prove of utmost value to the people of the State. It is planned to develop as rapidly as possible this phase of the work, which will have, aside from its great economic value to the State, an important educational value because of the close contact the students will have with the live engineering problems of today.

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 Engineering College without the unit

for advanced algebra, or the one-half unit for 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 taken, and the second semester mathematics would be taken in the summer school. Thus, such students, if they passed the course, would be enabled to enter the sophomore year the next fall.

Bachelor Degrees in Engineering

Courses leading to the degree of Bachelor of Science are offered in Civil, Electrical, and Mechanical Engineering, respectively.

Master of Science in Engineering

The degree of Master of Science in Engineering is given to those students registered in the Graduate School, who hold bachelor degrees in engineering, prerequisite for which requires a similar amount of preparation and work as required for bachelor degrees in the Engineering College 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 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 three years.

2. His registration for a degree must be approved at least twelve months prior to the date at which the degree is sought. He shall present with his application a complete report of his engineering experience and an outline of his proposed thesis.

3. He shall present a satisfactory thesis on an approved subject.

4. He must be considered eligible by a committee composed of the Dean of the College of Engineering and the heads of the Departments of Civil, Electrical, and Mechanical Engineering.

Equipment

The Engineering building is provided with lecture-rooms, recitation-rooms, drafting-rooms, laboratories, and shops for all phases of engineering work.

The Legislature in 1928 made provision for a substantial addition to the Engineering Building, which will provide additional space that has been much needed.

Drafting-Rooms. The drafting-rooms are equipped for practical work. Engineering students must provide themselves with an approved drawing outfit, material, and books, the cost of which during the freshman year amounts to about $40.00.

Electrical Engineering Laboratory. The equipment includes many of the various types of direct current and alternating current generators and motors, rotary converter, distribution transformers, control apparatus, and the measuring instruments essential to practical electrical testing. For experimental work, electrical power is obtained from engine driven units and a turbine generator; a storage battery is used for constant voltage-testing purposes.

Instruments are available for measuring the candle power of lamps and for the determination of illumination intensities. The standardizing laboratory apparatus includes primary and secondary standards used in calibrating laboratory instruments.

The telephone laboratory is equipped with apparatus for experimental work on magneto and common battery system. The radio apparatus is limited, at present, to receiving sets.

Mechanical Engineering Laboratory. The apparatus consists of Corliss and 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 Laboratory. Apparatus and equipment are provided for making standard tests on various construction materials as steel, concrete, timber, and brick.

Equipment includes 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.

Highway Research Laboratory. Certain problems in highway research have been undertaken and are actively under way, being carried on in co-operation with the State Roads Commission and the U. S. Bureau of Public Roads.

A study of the traffic over the Maryland State Highway system has been in progress, and there has been prepared annually a traffic map covering the entire state highway system.

The elastic properties of concrete have been studied in the laboratory, this work co-ordinating with the general program of research problems undertaken by the U. S. Bureau of Public Roads.

In co-operation with the State Roads Commission, there are taken every year samples of concrete from the concrete roads of the State, these samples consisting of cores cut from the road by a special core drill apparatus mounted upon a suitably equipped truck. The cores are brought into the laboratory, where they are tested and records of the results sent to the State Roads Commission.

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 for engineering students.

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 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 types 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 for students in this branch of engineering.

There has also been collected a wide variety of specimens of the more common minerals and rocks from various sections of the country, particularly from Maryland.

Library

Each department contains a well-selected library for reference, and the standard engineering magazines.

The class work, particularly in the higher courses, requires that the students consult special books of reference and current technical literature.

Curricula

The normal curriculum of each department is outlined on the following pages. Students are also expected to attend and take part in the meetings of the Engineering Society, Seminar, and engineering lectures.

Junior and senior students with requisite standing may elect additional hours not to exceed three a semester.

All members of the freshman engineering class are required to attend a series of lectures, the speakers, for the most part, being other than engineers. Each student is required to hand in a very brief written summary of each lecture.

All engineering students are urged to get work during the summer, particularly in some engineering field, if possible.

On the return of the students in the fall, each is given a blank on which to state the character of the work upon which he has been engaged for the past summer, the name of the employer, and the amount of money he earned. Such records are very helpful when the students wish to secure employment upon graduation.

The proximity of the University to Baltimore and Washington, and to other places where there are great 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 trips of inspection.

The same program is required of all students in engineering in the freshman and sophomore years.

Freshman Year	*Semester* I	II
Composition and Rhetoric (Eng. 1 y)	3	3
*Elementary Social Sciences (Soc. Sci. 1 y)	3	3
*Modern Language	3	3
Reading and Speaking (P. S. 1 y)	1	1
Freshman Mathematics (Math. 3 f and 4 s)	5	5
General Chemistry (Chem. 1 y)	4	4
Engineering Drafting (Dr. 1 y)	1	1
Shop and Forge Practice (Shop. 1 y)	1	1
Basic R. O. T. C. (M. I. 1 y)	1	1
Engineering Lectures	—	—
	—	—
	19	19
Sophomore Year		
Oral Technical English (P. S. 3 y)	1	1
*Modern Language (Adv. Course)	3	3
*Modern European History (H. 1 y)	3	3
Calculus; Elementary Differential Equations (Math. 7 y)	5	5
General Physics (Phys. 2 y)	5	5
Descriptive Geometry (Dr. 2 y)	2	2
Machine Shop Practice (Shop 2 f and 3 s) M. and E.	1	2
Civil	1	—
Basic R. O. T. C. (M. I. 2 y)	2	2
Plane Surveying (Surv. 1 f and 2 s) M. and E.	1	—
Civil	1	2
Engineering Lectures	—	—
	—	—
	20	20

* Alternatives.

CIVIL ENGINEERING

Junior Year	*Semester* I	II
*Principles of Economics (Econ. 3 f)	3	—
*Advanced Oral Technical English (P. S. 4 y)	1	1
*Engineering Geology (Engr. 3 y)	1	1
*Engineering Mechanics (Mech. 2 y)	5	4
Prime Movers (Engr. 1 y)	2	2
Elements of Design of Masonry Structures (C. E. 102 s)	—	2
Elements of Design of Steel Structures (C. E. 103 s)	—	3
*Materials of Engineering (Mech. 3 s)	—	2
Advanced Surveying (Surv. 101 f)	3	—
Elements of Railroads (C. E. 101 f)	3	—
*Railway Transportation (Econ. 111 s)	—	3
Engineering Lectures	—	—
	—	—
	18	18
Senior Year		
*Advanced Oral Technical English (P. S. 5y)	1	1
*Engineering Jurisprudence (Engr. 101 f)	1	—
*Public Utilities (Engr. 4 s)	—	1
*Engineering Chemistry (Chem. 111 f)	1	—
Sanitary Bacteriology (Bact. 4 s)	—	1
Highways (C. E. 107 f)	4	—
Bridges, Masonry and Steel (C. E. 106 y)	4	4
Buildings, Masonry and Steel (C. E. 105 y)	4	4
Sanitation)C. E. 108 y)	3	3
Thesis (C. E. 109 s)	—	4
Engineering Lectures	—	—
	—	—
	18	18

ELECTRICAL ENGINEERING

Junior Year		
*Principles of Economics (Econ. 3 s)	—	3
Differential Equations (Math. 103 f)	3	—
*Advanced Oral Technical English (P. S. 4 y)	1	1
*Engineering Geology (Engr. 3 y)	1	1
*Engineering Mechanics (Mech. 1 y)	4	3
*Materials of Engineering (Mech. 3 s)	—	2
Elements of Machine Design (M. E. 101 f)	1	—
Direct Currents (E. E. 102 y)	5	5
*Prime Movers (Engr. 2 y)	2	2
Electrical Machine Design (E. E. 103 y)	1	1
Engineering Lectures	—	—
	—	—
	18	18

* Required of all Engineering students.

Senior Year	*Semester* I	II
*Advanced Oral Technical English (P. S. 5 y)	1	1
*Engineering Jurisprudence (Engr. 101 f)	1	—
*Public Utilities (Engr. 4s)	—	1
*Engineering Chemistry (Chem. 111y)	1	1
Alternating Currents (E. E. 104 y)	5	5
Electrical Machine Design (E. E. 105 y)	1	2
†Electric Railways and Electric Power Transmission (E. E. 106 y)	3	4
†Telephones and Telegraphs (E. E. 107 y)	3	4
†Radio Telephony and Telegraphy (E. E. 108 y)	3	4
†Illumination (E. E. 109 y)	3	4
Thermodynamics (Mech. 101 f)	3	—
Engineering Lectures	—	—
	—	—
	18	18

MECHANICAL ENGINEERING

Junior Year		
*Principles of Economics (Econ. 3s)	—	3
Differential Equations (Math. 103 f)	3	—
*Advanced Oral Technical English (P. S. 4 y)	1	1
*Engineering Geology (Engr. 3 y)	1	1
*Engineering Mechanics (Mech. 1 y)	4	3
*Materials of Engineering (Mech. 3 s)	—	2
Foundry Practice (Shop 4 f)	1	—
*Prime Movers (Engr. 2 y)	2	2
Kinematics and Machine Design (M. E. 102 y)	6	2
Elements of Steel Design (C. E. 103 s)	—	2
Heating and Ventilation (M. E. 108 s)	—	2
Engineering Lectures	—	—
	—	—
	18	18

Senior Year		
*Advanced Oral Technical English (P. S. 5 y)	1	1
*Engineering Jurisprudence (Engr. 101 f)	1	—
*Public Utilities (Engr. 4 s)	—	1
*Engineering Chemistry (Chem. 111 y)	1	1
Design of Prime Movers (M. E. 103 y)	3	3
Design of Power Plants (M. E. 104 s)	—	3
Design of Pumping Machinery (M. E. 105 f)	2	—

* Required of all Engineering students.
† Select two.

	Semester I	II
Thermodynamics (Mech. 102 y)	3	3
Elementary Physical Chemistry (Chem. 10 y)	3	3
Engineering Finance (M. E. 106 s)	—	2
Mechanical Laboratory (M. E. 107 y)	1	1
Industrial Application of Electricity (E. E. 101 f)	3	—
Engineering Lectures	—	—
	—	—
	18	18

COLLEGE OF HOME ECONOMICS

M. MARIE MOUNT, *Dean*

The home economics subjects are planned to meet the needs of the following classes of students: (1) those who desire a general knowledge of the facts and principles of Home Economics without specializing in any one phase of Home Economics; (2) those students who wish to teach Home Economics in schools 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 specilalists, clothing 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 Institutional Management.

Facilities

The College of Home Economics has moved into new quarters this year. A building has ben completely remodeled and redecorated, with class rooms and laboratories which more adequately meet the increased demands.

In addition to this building, the college maintains a well equipped home management house, in which the students keep house for a period of six weeks during their senior year.

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 Education (see Home Economics Education) at the beginning of the junior year.

Following are the outlines of the Curricula for General Home Economics, Textiles and Clothing, Foods and Nutrition, and Institutional Management:

GENERAL HOME ECONOMICS

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1 y)	3	3
Textile Fabrics (H. E. 11 f)	3	—
Clothing Construction (H. E. 12 s)	—	3
General Chemistry (Chem. 1 y)	4	4
Reading and Speaking (P. S. 1 y)	1	1
Physical Education (Phy. Ed. 1 y)	1	1
*Language or Electives	3	3
Home Economics Lectures	—	—
	—	—
	15	15
Sophomore Year		
Elements of Organic Chemistry (Chem. 12 f)	4	—
Elementary Foods (H. E. 31 y)	3	3
Principles of Design (H. E. 21 f)	3	—
Costume Design (H. E. 24 s)	—	3
Public Education in the United States (Ed. 2 f)	2	—
Physical Education (Phys. Ed. 2 y)	2	2
Language or Electives	3	9
	—	—
	17	17
Junior Year		
Household Bacteriology (Bact. 3 s)	—	3
Nutrition (H. E. 131 f and 132 s)	3	3
Buying for the Home (H. E. 142 f)	2	—
Advanced Clothing (H. E. 111 f)	4	—
**Special Applications of Physics (Physics 3 s)	—	4
***Electives	8	7
	—	—
	17	17
Senior Year		
Child Study (H. E. Ed. 102 f)	5	—
Management of the Home (H. E. 141 f)	5	—
Choice of one unit in Foods, Clothing, Teaching, or Institutional Management	5	—
Interior Decoration (H. E. 121 s)	—	3
Electives	—	12
	—	—
	15	15

* This requirement may be waived for students entering college with three or more years of a language.

** If schedule permits Physics may be taken during the sophomore year.

*** Choice of General Zoology, Botany, or Genetics required for all students in the sophomore or junior year.

TEXTILES AND CLOTHING CURRICULUM

	Semester I	Semester II
Junior Year		
Household Bacteriology (Bact. 3 s)	—	3
Special Applications of Physics (Physics 3 s)	—	4
Nutrition (H. E. 131 f)	3	—
Advanced Clothing (H. E. 111 f)	4	—
Chemistry of Textiles (Chem. 15 s)	—	4
Costume Design (H. E. 24 s)	—	3
Buying for the Home (H. E. 142 f)	2	—
Electives	8	3
	17	17
Senior Year		
Management of the Home (H. E. 141 f)	5	—
Child Study (H. E. Ed. 102 f)	5	—
Problems and Practice in Textiles or Clothing (H. E. 113 f)	5	—
Interior Decoration (H. E. 121 s)	—	3
Special Clothing Problems (H. E. 112 s)	—	3
Electives	—	9
	15	15

FOODS CURRICULUM

Junior Year		
Household Bacteriology (Bact. 3 s)	—	3
Special Applications of Physics (Physics. 3 s)	—	4
Nutrition (H. E. 131 f and 132 s)	3	3
Buying for the Home (H. E. 142 f)	2	—
Chemistry of Foods (Chem. 14 f)	4	—
Demonstrations (H. E. 133 f)	2	—
Electives	6	7
	17	17
Senior Year		
Child Study (H. E. Ed. 102 f)	5	—
Management of the Home (H. E. 141 f)	5	—
Choice of one unit in Field Practice with Home Demonstration Agent, Practice in Institutional Problems, Special Food Research, etc.	5	—
Interior Decoration (H. E. 121 s)	—	3
Advanced Foods (H. E. 134 s)	—	3
Electives	—	9
	15	15

INSTITUTIONAL MANAGEMENT CURRICULUM

	Semester I	Semester II
Junior Year		
Household Bacteriology (Bact. 3 s)	—	3
Special Applications of Physics (Physics 3 s)	—	4
Nutrition (H. E. 131 f and 132 s)	3	3
Buying for the Home (H. E. 142 f)	2	—
Institutional Management (H. E. 143 y)	3	3
Electives	9	4
	17	17
Senior Year		
Management of the Home (H. E. 141 f)	5	—
Child Study (H. E. Ed. 102 f)	5	—
Practice in Institutional Management (H. E. 144 f) or Problems and Practice in Foods (H. E. 135 f)	5 / 5	— / —
Advanced Institutional Management (H. E. 145 s)	—	3
Interior Decoration (H. E. 121 s)	—	9
Electives	—	—
	15	15

THE GRADUATE SCHOOL

C. O. APPLEMAN, *Dean.*

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 of the University of Maryland was established in 1918 and organized graduate instruction leading to both the Master's degree and Doctor's degree was undertaken. The faculty of the Graduate School includes all members of the various faculties of instruction and research 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.

Work in accredited research laboratories of the United States Department of Agriculture and other local national research agencies may be accepted when previously arranged, as residence work in fulfillment of the thesis requirement for a degree. The laboratories are located within easy reach of the University.

GENERAL REGULATIONS

ADMISSION

Graduates of colleges and universities of good standing are admitted to the Graduate School. Before entering upon graduate work all applicants must present evidence that they are qualified by their previous work to pursue with profit the graduate courses desired. 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 the student to register in the Graduate School. After payment of the fees, the matriculation card is stamped and returned to the student. 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 at the beginning of each semester in the office of the Dean of the Graduate School, Room DD 117 Chemistry building. Students taking graduate work in the Summer School are also required to register in the Graduate School at the beginning of each session. The program of work for the semester or summer session is entered upon two course cards, which are first signed by the

professor in charge of the student's major subject and then by the Dean of the Graduate School. One card is retained in the Dean's office. The student takes the other card, and, in case of new students, also the matriculation card, to the Registrar's office, where a charge slip for the fee is issued. The charge slip, together with the course card, is presented at the Cashier's office for adjustment of fees. After certification by the Cashier that fees have been paid, class cards are issued by the Registrar. Students will not be admitted to graduate courses without class cards. Course cards may be obtained at the Registrar's office or in 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 those 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 courses. Students with inadequate preparation may be obliged to take some of these courses as prerequisites for advanced courses.

PROGRAM OF WORK

The professor who is selected to direct a student's thesis work is the student's advisor in the formulation of a graduate program including suitable minor work. This program also receives the approval of the Dean by his endorsement of the student's course card.

To encourage thoroughness in scholarship through intensive application, graduate students in the regular sessions taking courses carrying full graduate credit are limited to a program of thirty credit hours for the year. Students holding half-time graduate assistantships are usually limited to eight credit hours per semester. One or two extra credits may be allowed if four or five of the total constitute Seminar and Research work.

Residence credit for all research work relating directly to the Master's or Doctor's thesis should be stated as credit hours on the registration card for the semester in which the work is to be done. If a student is doing research work only under the direction of an official of the institution he must register and pay for a minimum of four credit hours per semester. The number of credit hours reported at the end of the semester will depend upon the work accomplished, but it will not exceed the number for which the student is registered.

SUMMER GRADUATE WORK

Graduate work in the Summer Session may be counted as residence toward a graduate degree. Four Summer Sessions may be accepted as satisfying the residence requirement for the Master's degree. By carrying approximately six semester hours of graduate work for four sessions and upon submitting a satisfactory thesis, students may be granted the degree of

Master of Arts or Master of Science. In some instances a fifth summer may be required in order that a satisfactory thesis may be completed. Teachers and other graduate students working for a degree on the summer plan must meet the same requirements and proceed in the same way as do students enrolled in the other sessions of the University.

Students who are not working for a degree on the regular Summer School plan may satisfy one-third of an academic year's residence by full-time graduate work for 11 or 12 weeks during the summer, provided satisfactory supervision and facilities for summer work are available in the student's field.

The University publishes a special bulletin giving full information concerning the Summer School and the graduate courses offered during the Summer Session. This bulletin is available upon application to the Registrar of the University.

GRADUATE WORK BY SENIORS IN THIS UNIVERSITY

Seniors who have completed all of their undergraduate courses in this University at 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.

Seniors of this University, who have nearly completed the requirements for the undergraduate degree, by the end of the first semester, may with the approval of their undergraduate Dean and the Dean of the Graduate School, register in the undergraduate college for graduate courses which will be transferred for graduate credit toward a degree at this University, but the total of undergraduate and graduate courses must not exceed 15 credits for the semester.

ADMISSION TO CANDIDACY FOR ADVANCED DEGREES

Application for admission to candidacy for either the Master's or 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 any graduate courses completed at other institutions must accompany the application unless these are already on file in the Dean's office.

A student making application for admission to candidacy for the degree of Doctor of Philosophy must also obtain from the head of the Modern Language department, a statement that he possesses a reading knowledge of French and German.

Admission to candidacy in no case assures the student of a degree, but merely signifies that the candidate has met all of the formal requirements and is considered by his instructors sufficiently prepared and able to pursue

such graduate study and research as is demanded by the requirements of the degree sought. The candidate's record in graduate work already completed must show superior scholarship. A preliminary examination or such other substantial tests as the departments elect may also be required for admission to candidacy for the degree of Doctor of Philosophy.

The time to make application for admission to candidacy is stated under the heading of 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 the equivalent of one semester of graduate work has been completed.

Residence Requirements. The standard residence requirement is one academic year, but this does not mean that the work prescribed for each individual student can always be completed in one academic year. Inadequate preparation for the graduate courses the student wishes to pursue may make a longer period necessary.

Credits and Scholarship Requirements. The minimum credit requirement is 30 semester hours in courses approved for graduate credit. From 10 to 12 credits must lie outside the major subject and form a coherent group of courses intended to supplement and support the major work. A minimum of at least 18 credits, including the thesis credits, must be devoted to the major subject. At least one-half of the total credits in the major subject must be earned in courses for graduates only. The credits for thesis work are included. The number of major credits allowed for thesis work will range from 6 to 10, depending upon the amount of work done and upon the course requirements in the major subject. The maximum total credit for the one hour per week seminar courses is limited to four semester hours in the major subject and to two semester hours in the minor subjects. At least 20 of the 30 semester credits required for the Master's degree must be taken at this institution. In certain cases graduate work done in other graduate schools of sufficiently high standing may be substituted for the remaining required credits, but the final examination will cover all graduate work offered in fulfillment of the requirements for the degree. The Graduate Council, upon recommendation of the Head of the major department, passes upon all graduate work accepted from other institutions. No credits are acceptable for an advanced degree that are reported with a grade lower than "C."

Thesis. The thesis required for the Master's degree should be typewritten on a good quality of paper 11 x 8½ inches in size. The original copy bound is a special cover, obtained at the book store, must be deposited in the office

of the Graduate School not later than two weeks before commencement. One or two additional unbound copies should be provided for use of members of the examining committee prior to the final examination.

Final Examination. The final examination is conducted by a committee appointed by the Dean of the Graduate School. The student's advisor acts as the chairman of the committee. The other members of the committee 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 the examination. 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 examination 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 final examination is oral, but a previous written examination in courses of the semester immediately preceding the examination may be required at the option of the individual members of the committee. The period for the oral examination should be about 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 October 1 of the same year.

Residence. Three years of full-time resident graduate study beyond the Bachelor's degree or two years beyond the Master's degree are required. The first two of 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. Thirty semester hours of minor work are required. 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 will vary with the subject 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 of the thesis, bound in a special cover obtained at the book store, must be deposited in the office of the Dean at least three weeks before the time the degree is granted. One or two extra unbound copies should be provided for use of members of the examining committee prior to the date of the final examination. The theses are printed in such form as the committee and the Dean may approve and fifty copies are deposited in the library.

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 should be approximately three hours and should cover the research work 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.

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 $1.50 per semester credit hour, with a minimum charge of $6.00.

A diploma fee of $10.00, with special charge of $10.00 for doctor's hood.

FELLOWSHIPS AND GRADUATE ASSISTANTS

A number of fellowships and graduate assistantships have been established by the University. A few industrial fellowships are also available in certain departments.

Applications for Fellowships and Graduate Assistantships. Application blanks may be obtained at the office of the Dean of the Graduate School. All applications with the necessary credentials are sent by the applicant direct to the Dean not later than May 15. His endorsement assures the applicant of admission to the Graduate School in case he is awarded either a fellowship or a graduate assistantship. After the applications have been approved by the Dean they are sent to the heads of the departments concerned, who make the selection and recommend to the proper administrative officer that the successful applicants be appointed. All of the applications together with the credentials are then returned to the office of the Dean of

the Graduate School. Those of the successful applicants properly endorsed are placed on file for record. The credentials will be returned to the unsuccessful applicants.

Stipend. The University fellowships pay $500 and the appointment is for the academic year. In certain cases the term of appointment may be extended to include one or two summer months in addition to the nine months of the academic year.

The stipend for the industrial fellowship varies according to the type of fellowship.

Service Requirements. Each University fellow is expected to give a limited portion of his time to instruction or perform equivalent duties prescribed by the major department. The usual maximum amount of service required is five hours per week of class-room work or twelve hours of laboratory and other prescribed duties. No service is required of the industrial fellow other than research. The teaching graduate assistants devote one-half of their time to instruction. This is equivalent to about one-half of the load of a full-time instructor. Several research assistanships are offered by the Experiment Station and the only service required is in connection with research projects. Graduate students holding appointments as fellows or graduate assistants are exempt from all fees except the diploma fee. A charge for breakage may, however, be made in case of any graduate student engaged in laboratory work.

Residence Requirements for a Degree. Fellows may satisfy the residence requirements for either the Master's or Doctor's degree without extension of the usual time.

The Graduate Assistants are required to spend two years in residence for the Master's degree, but for the Doctor's degree they are allowed two-thirds residence credit for each academic year at this University so that the minimum residence requirement from the Bachelor's degree may be satisfied in four academic years and one summer or three academic years and three summers of 11 to 12 weeks.

THE GRADUATE SCHOOL ANNOUNCEMENTS

The University publishes a separate bulletin which contains more detailed information regarding the regulations governing graduate work. The courses for which graduate credit is allowed are also listed in this bulletin. A copy of the Graduate School Announcements for 1930-1931 may be obtained from the Registrar or from the office of the Dean of the Graduate School.

SUMMER SCHOOL

WILLARD S. SMALL, *Director.*

A summer session of six weeks is conducted at College Park. The program is designed to serve the needs of three classes of students: teachers and supervisors of the several classes of school work—elementary, secondary, and vocational; special students, as farmers, breeders, dairymen, home makers, chemists, public speakers, graduate students; and students who are candidates for degrees in agriculture, arts and sciences, education, engineering, and home economics.

Terms of Admission

Teachers and special students not seeking a degree are admitted without examination 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 School.

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.

Credits and Certificates

The semester hour is the unit of credit as in other sessions of the University. During the summer session, a lecture course meeting five times a week for six weeks and requiring the standard amount of outside work, is given a weight of two semester hours.

Appropriate educational courses satisfactorily completed will be credited by the State Department of Education toward meeting the minimum requirements of professional preparation as follows:

(1) For teaching in the elementary schools of the State, including renewal of certificates and advancing the grade of certificates.

(2) For teaching in high schools of the State and for renewal of high school certificates.

(3) For teaching vocational agricultural and home economics and for renewal of vocational teachers' certificates.

(4) For high school principalships.

(5) For elementary school principalships.

Summer Graduate Work

Special arrangements have been made for persons wishing to do graduate work in summer. Teachers and other graduate students working for a degree on the summer plan must meet the same requirements and proceed in the same way as do students enrolled in the other sessions of the University.

For detailed information in regard to the Summer Session consult the special Summer School announcement, issued annually in April.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

ROBERT S. LYTLE, *Major Infantry (D.O.L.), 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.

Object

The primary object of the Reserve Officers' Training Corps is to provide systematic military training at civil educational institutions for the purpose of qualifying selected students of such institutions as reserve officers in the military forces of the United States. It is intended to attain this object during the time the students are pursuing their general or professional studies with the least possible interference with their civil careers, by employing methods designed to fit men physically, mentally, and morally for pursuits of peace as well as pursuits of war. It is believed that such military training will aid greatly in the development of better citizens.

Advanced Work

Students who complete the basic course satisfactorily and who are recommended by the Professor of Military Science and Tactics, and whose application is approved by the President, may continue their military training for a period of two years in the Advanced Course.

Time Allotted

For first and second year, 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 in 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.

Uniforms, or commutation in lieu of uniforms, for the Reserve Officers' Training Corps, will be furnished free 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 uniform 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 any other time unless the regulations governing their use are violated. The uniform cannot be worn in part. Uniforms which are furnished by the Government will be returned to the Military Department at the end of the year or before, if the student leaves the University. In case commutation of uniforms is furnished, the uniform so purchased becomes the property of the students upon completion of two years' work.

Commutation

Those students who elect the advanced course and who have signed the contract with the Government to continue in the Reserve Officers' Training Corps for the two remaining years of the advanced course are entitled to a small per diem money allowance payable quarterly from and including the date of contract 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 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 recre-

ation 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 those students who are taking the advanced course, which, as has been previously stated, is elective.

The 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. Quarters and food are furnished. The Advanced Course students, in addition to receiving quarters and food, are paid seventy cents ($0.70) for each day spent in camp.

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) This University has been designated by the War Department annually for several consecutive years as a "Distinguished College." This designation indicates that the work of its R. O. T. C. unit has been recognized by the Federal Government as being of a superior order.

This classification also permits the Professor of Military Science and Tactics to designate an Honor Graduate from the members of the second year Advanced Course, who may be commissioned as Second Lieutenant of Infantry in the Regular Army, if he so desires, by passing the required physical examination. This designation as Honor Graduate exempts the individual selected from all academic examinations usually required for a Regular Army Commission.

The acceptance of this opportunity is, of course, optional with the student.

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.

Those 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 AND RECREATION

The work is physical education and recreation is done in co-operation with the Military Department. As far as possible the work along all these lines is coordinated with a view to having each student in the institution engage in some form of exercise best suited to his particular case.

The work at present reaches all students either through the military exercises, through intramural sports, through intercollegiate athletics, or through the special work given to those not particularly fitted for any of these forms. At the beginning of the year a physical examination is given the students, especial attention being paid to the members of the freshman class. All male members of the freshman and sophomore classes who are physically sound take part in the military drills and exercises. To meet the particular needs of freshmen and sophomores who do not qualify physically for military training, special programs of setting-up exercises and drills are devised.

Physical Education beyond the freshman and sophomore classes is not compulsory. Those who do not engage in it are offered opportunity to play tennis, engage in intramural games, or take part in some other form of competitive sport. All students have opportunities to become members of the squads playing in intercollegiate athletics. With the exception possibly of a few members of the junior and senior classes, the University is reaching all its students with some form of developmental physical exercise. A modern gymnasium, two athletic fields, and tennis courts offer excellent facilities.

SCHOOL OF DENTISTRY

J. BEN ROBINSON, *Dean.*

Faculty Council

GEORGE M. ANDERSON, D.D.S.
ROBERT P. BAY, M.D.
JOSE A. DAVILA, D.D.S.
HORACE M. DAVIS, D.D.S., F.A.C.D.
OREN H. GAVER, D.D.S.
EDWARD HOFFMEISTER, A.B., D.D.S.
BURT B. IDE, D.D.S.
HOWARD J. MALDEIS, M.D.
ROBERT L. MITCHELL, Phar. G., 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.

The University of Maryland was created by an act of the Maryland Legislature, December 18, 1807, for the purpose of offering a course of instruction in medical science. There were at that period but four medical schools in America—the University of Pennsylvania, founded in 1765; Harvard University, in 1782; Dartmouth College, in 1798, and the College of Physicians and Surgeons of New York, May, 1807.

The first lectures on Dentistry in America were delivered by Horace H. Hayden, M. D., at the University of Maryland in the year 1837. A movement was started at that time to create a department of dentistry, and application was made to the Regents of the University for permission to establish such work in connection with the School of Medicine. This request being refused, a charter was applied for and granted in 1840, establishing the Baltimore College of Dental Surgery, the first dental school in the world. Lectures were begun in 1840, and the first class graduated in 1841. 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, when 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 its first class in 1883 and a class each subseqent year to the merger—June, 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 affected June 15, 1923, by the amalgamation of the University of Maryland School of Dentistry and the Baltimore College of Dental Surgery, the latter being continued as the School of Dentistry of the University of Maryland.

Thus we find in the present School of Dentistry of the University a grouping and concentration 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 potential strength of the alumni is second to none either in numbers or degree of service to the profession.

Building

Instruction in the course in dentistry in the Baltimore College of Dental Surgery, Dental School, University of Maryland, is administered in Baltimore at Lombard and Greene Streets. Instruction is now offered in the new dental building, which has recently been completed and equipped. This gives the School of Dentistry one of the most modern plants among dental schools in the United States. Every convenience for thorough instruction in clinics, technic laboratories, and science laboratories has been provided.

Requirements for Matriculation

The School of Dentistry is a member in good standing of the American Association of Dental Schools, and conforms to the rules and regulations of that body.

The present requirement for matriculation in the School of Dentistry is graduation from an accredited high school with fifteen units of credit, accompanied by a certificate from the principal of the high school that the applicant is in every way qualified to do college work. This requirement will admit students to the five-year course in dentistry, now being required.

Applicants for matriculation must present their credentials for verification to the Registrar of the University of Maryland, Baltimore, Maryland. A blank form for submitting credentials may be had by applying to the Dean of the School of Dentistry. The blank must be filled out in full as indicated by various items on the form, signed by the prospective dental student, and returned to the Registrar's office with the $2.00 investigation fee.

Length of Course

A five-year course of instruction is offered. The many obvious advantages in the consecutive five years of professional study over the one year of college work and four years of dentistry, or the two years of college work and three years of dentistry, offered by most dental schools, has influenced the adoption of the five-year plan. Admission to advanced standing may be secured by offering acceptable college credits for academic requirements appearing in the first year.

Advanced Standing

Applicants showing in addition to high school requirements, college credits of equal value in courses contained in the dental curriculum may receive advanced credit on those subjects. Thirty semester hours of college credit

entitle the applicant to second-year rating, with the opportunity to complete the course in four years, provided his college record shows the following to the credit of the applicant:

Inorganic Chemistry	8 hours
Zoology	8 hours
Mathematics	6 hours
English	6 hours

Graduates from reputable and accredited colleges and universities or those with at least two years completed work from Class A medical schools, will be given advanced credit in completed subjects and advanced standing in the course.

A student who desires to transfer to this school from another recognized dental school must present credentials signed by the Dean, Secretary, or Registrar of the school from which he is transferring. No student who has incurred a condition or a failure in any subject at the school from which he desires to transfer will be accepted. The student transferring must furnish evidence that he is in possession of the necessary high school credits.

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 in all classes begin, and remain until the close of the session, the dates for which are announced in the Calendar.

In case of serious illness as attested by a physician, a student 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 absence from class.

In certain unavoidable circumstances of absence the Dean may honor excuses, but students with less than a minimum of eighty-five per cent. attendance will not be promoted to the next succeeding class. Regular attendance is demanded of all students. This rule will be rigidly enforced.

Promotion

In order that credit be given in any subject a grade of 75 per cent. must be earned. A student to be promoted to the next succeeding year must have passed courses amounting to at least 80 per cent. of the total scheduled hours of the year.

A grade between 60 per cent. and passing mark is a *condition*. A grade below 60 per cent. is a *failure*. A condition may be removed by an examination. In such effort inability to make a passing mark is considered a *failure*. A failure can be removed only by repeating the course. A student with combined conditions and failures amounting to 40 per cent. of the scheduled hours of the year will be required to repeat his year. Students who are required to repeat courses must pay regular fees.

Equipment

A complete list of necessary instruments and materials for technic and clinic courses and textbooks 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 a responsible class officer for inspection. No student will be permitted to go on with his class who does not meet this requirement.

Deportment

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, 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.

Requirement for Graduation

The degree of Doctor of Dental Surgery is conferred upon the completion of the five-year course of study, each year to consist of thirty-two weeks, and each week to consist of six days of school work. The candidate must be twenty-one years of age, must possess a good moral character, and must have passed in all branches of the curriculum.

Fees

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	300.00
Dissecting fee (first semester, sophomore year)	15.00
Laboratory fee (each session)	20.00
Locker fee—freshman, sophomore, and pre-junior years	3.00
Locker fee—junior and senior years	5.00
Chemistry Laboratory breakage deposit	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 re-examinations	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

Matriculation fee must be paid prior to September 15.

Students who fail to pay the tuition and other fees, on or before the last day of registration, for each term or semester, as stated in the catalogue,

will be required to pay as an addition to the fees required the sum of five dollars ($5.00), and if the payment so required shall not be paid before twenty (20) days from the beginning of said term or semester, the student's name shall be stricken from the rolls.

All students of the several classes will be required to obtain cards of registration at the office of the Registrar, pay to the Comptroller one-half of the tuition fee, and full amount of laboratory fee before being regularly admitted to class work. The balance of tuition and other incidental fees must be in the hands of the Comptroller on or before February third.

According to the policy of the Dental School 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.

These requirements will be rigidly enforced.

Students may matriculate by mail, by sending amount of fee to Mr. W. M. Hillegeist, Registrar, University of Maryland, Lombard and Greene Streets, Baltimore, Md.

DEFINITION OF STUDENT RESIDENCE AND NON-RESIDENCE

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

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 or guardians move to and become legal residents of this State.

THE GORGAS ODONTOLOGICAL SOCIETY

The Gorgas Odontological Society was organized in 1914 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 Fourth Year in the dental school, if, during their preceding years, they have attained an 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. In this way, the members have an opportunity, even while students, to hear men associated with other educational institutions.

SCHOLARSHIPS

A number of scholarships from various organizations and educational foundations have been available to students in the School of Dentistry. These scholarships have been secured 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 those 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 of $600 is made to the Baltimore College of Dental Surgery, Dental School, University of Maryland, for loan scholarships available for the use of young men and women students, under the age of twenty-five. Recommendations for the privileges of these scholarships are limited to students in the fourth and last years. Only those 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 Endownment 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.

THE SCHOOL OF LAW

HENRY D. HARLAN, *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.
ROBERT H. FREEMAN, Esq., A.M., LL.B.
W. CALVIN CHESTNUT, Esq., A.B., LL.B.
G. RIDGELY SAPPINGTON, Esq., LL.B.
R. EARL CHRISTIAN, Esq., A.B., J.D.
ROGER HOWELL, Esq., A.B., Ph.D., LL.B.
EDWIN W. RUGE, Esq., A.B., LL.B.

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. This was suspended in 1836 for lack of proper pecuniary support. In 1869 the School of Law was organized, 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 two 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 building for the School of Law adjoins that for the School of Medicine, and part of its equipment is a large library maintained for use of the students, which contains carefully selected text-books on the various subjects embraced in the curriculum, reports of American and English courts, digests and standard encyclopedias. No fee is charged for the use of the library. Other libraries also are available for students.

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 forty 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

Applicants for admission as candidates for a degree are required to produce evidence of the completion of at least two years of college work, or such work as would be accepted for admission to the third or junior year in the College of Liberal Arts of an accredited college or university in this State.

A limited number of students applying for entrance 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 the apparent ability of the student, seem to justify a deviation from the rule requiring at least two years of college work.

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 95.

Advanced Standing

Students complying with the requirements for admission to the school who have, in addition, successfully pursued the study of law elsewhere in an accredited law school, may, upon presentation of a certificate from such accredited 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, Lombard 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

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MAURICE C. PINCOFFS, S.B., M.D.
FRANK W. HACHTEL, M.D.
EDWARD UHLENHUTH, Ph.D.
CLYDE A. CLAPP, 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 America.

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 28,928 persons.

In connection with the University Hospital, an outdoor obstetrical clinic is conducted. During the past year 1,417 cases were treated in the hospital and outdoor clinic.

The hospital now has about 250 beds—for medical, surgical, obstetrical, and special cases; and furnishes an excellent supply of clinical material for third- 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, Obstetrics, Children, Eye and Ear, Genito-Urinary, Gynecology, Gastro-Enterology, Neurology, Orthopedics, Proctology, Dermatology, Throat and Nose, and Tuberculosis. All students in their junior year work one day of each week in one of these dispensaries; all students in the senior year work one hour each day; 109,528 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 the Anatomical, Chemical, Experimental Physiology, Physiological Chemistry, Histology and Embryology, Pathology and Bacteriology, Clinical Pathology, Pharmacology, 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: Hirsh Prize; The Dr. Samuel Leon Frank Scholarship; Hitchcock Scholarship; The Randolph Winslow Scholarship; The University Scholarship; The Frederica Gehrmann Scholarship; The Dr. Leo Karlinsky Scholarship; The Clarence and Genevra Warfield Scholarships; Israel and Cecilia A. Cohen Scholarship; Daughters of Harmony Scholarship.

Requirements for Admission

Admission to the curriculum in medicine is by a completed Medical Student Certificate issued by the Registrar of the University of Maryland, Baltimore, Maryland. This certificate is obtained on the basis of satisfactory credentials, or by examination and credentials, and is essential for admission to any class.

The requirements for the issuance of the Medical Student's Certificate are as follows:

(a) The completion of a standard four-year high school course or the equivalent, and in addition:

*(b) Two years, sixty semester hours of basic college credits, including chemistry, biology, physics, modern foreign language, and English, and exclusive of Military Drill or Physical Education as outlined in the Pre-Medical Curriculum, or its equivalent, will meet the minimum requirement for admission. Students are strongly recommended, however, to complete the three-year pre-medical curriculum of 99 semester hours before making application for admission.

Women are admitted to the School of Medicine of this University.

Expenses

The following are the fees for students in the School of Medicine:

Matriculation	*Tuition* Resident—Non-Resident		*Laboratory*	*Graduation*
$10.00 (only once)	$350.00	$500.00	$25.00 (yearly)	$15.00

Estimated living expenses for students in Baltimore:

Items	*Low*	*Average*	*Liberal*
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

* For admission to the Pre-Medical 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.")

SCHOOL OF NURSING

ANNIE CRIGHTON, *R.N., Director and Superintendent of Nurses.*

The University of Maryland School of Nursing was established in the year 1889. Since that time it has been an integral part of the University of Maryland Hospital.

The school is non-sectarian, the only religious services being morning prayers.

The University of Maryland Hospital is a general hospital containing about 285 beds. It is equipped to give young women a thorough course of instruction and practice in all phases of nursing, including experience in the operating room.

The school offers the student nurse unusual advantages in its opportunity for varied experience and in its thorough curriculum taught by well-qualified instructors and members of the medical staff of the University.

Programs Offered

The program of study of the School is planned for two groups of students: (a) The three-year group; (b) the five-year group.

Requirements for Admission

In order to become a candidate for admission to the three-year program of the School, application must be made in person or by letter to the superintendent of nurses. An application by letter should be accompanied by a statement from a clergyman, testifying to good moral character, and from a physician certifying to sound health and unimpaired faculties. No person will be considered who is not in good physical condition and between the ages of 18 and 35. She must also show that she has a high-school education or its equivalent. This is the minimum requirement, for women of superior education and culture are given preference provided they meet the requirements in other particulars.

The fitness of the applicant for the work and the propriety of dismissing or retaining her at the end of her term of probation is left to the decision of the superintendent of nurses. Misconduct, disobedience, insurbordination, inefficiency, or neglect of duty is sufficient cause for dismissal at any time by the superintendent of nurses, with the approval of the President of the University.

Students are admitted to this group in February and September.

The requirements for admission to the five-year program of the School of Nursing are the same as for the other colleges and schools. (See Section I, "Entrance.")

Three-Year Program

The three-year program is designed to meet the requirements for the Diploma in Nursing, and comprises the work of the junior, intermediate, and senior years.

Junior Year

The Junior Year is divided into two periods. The first term is the preparatory period (six months) and the second the junior term.

In the preparatory term the student is given practical instruction in the following:

Junior Year—First Term

1. The making of hospital and surgical supplies. The cost of hospital materials, apparatus, and surgical instruments.
2. Household economics and the preparation of foods.
3. The hospital outpatients department and dispensary.

During this term the practical work is done under constant supervision, and teaching is given correlatively in the class room.

Excursions are made to markets, hygienic dairies, linen-rooms, laundry, and storeroom.

The maximum number of hours per week in formal instruction divided into lecture and laboratory periods is thirty hours, and includes courses in anatomy and physiology, dietetics, materia medica, personal hygiene, bacteriology, practical nursing, drugs and solutions, household economics, short course in ethics and history of nursing.

At the close of the first half of the junior year the students are required to pass satisfactorily both the written and oral tests, and failure to do so will be sufficient reason to terminate the course at this point.

Subsequent Course

The course of instruction, in addition to the probationary period, occupies two and one-half years, and students are not accepted for a shorter period.

After entering the wards, the students are constantly engaged in practical work under the immediate supervision and direction of the head nurses and instructors.

Throughout the three years, regular courses of instruction and lectures are given by members of the medical and nursing school faculties.

Junior Year—Second Term

During this period the students receive theoretical instruction in massage, general surgery, urinalysis, and advanced nursing procedures. Practical instruction is received in the male and female, medical, surgical, and children's wards.

Intermediate Year

During this period the theoretical instruction includes pediatrics, infectious diseases, obstetrics, gynecology, diet in disease, and orthopedics. The practical work provides experience in the nursing of obstetrical and gynecological patients in the operating rooms and the outpatient department.

Senior Year

During this period the student receives short courses of lectures on subjects of special interest. These include a consideration of the work of institutions of public and private charities, of settlements, and of various branches of professional work in nursing.

Experience is given in executive and administrative work to those showing exceptional ability in the senior year. With these students conferences are held on administration and teaching problems.

Hours on Duty

During the preparatory period the students are engaged in class work for the first three 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 junior, intermediate, and senior years the students are on eight hours day duty and ten hours 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 three months of the preparatory period are devoted to theoretical instruction given entirely in the lecture and demonstration rooms of the training school and hospital and medical school laboratories.

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 that 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 three weeks is allowed the student at the completion of first and second years.

Expenses

A fee of $30.00, payable on entrance, is required from all students. This fee will not be returned. Students receive board, lodging, and a reasonable

amount of laundry from the date of entrance. During her period of probation the student provides her own uniforms made according to instructions supplied. After being accepted as a student nurse she wears the uniform supplied by the hospital. The student is also provided with textbooks, and in addition to this is paid five dollars ($5.00) a month. Her personal expenses during the course of training and instruction will depend entirely upon her individual habits and tastes.

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 pre-hospital period), consisting of 68 semester hours, as shown on page 95 of this catalogue, 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, in order that the student may have her share in the social and cultural activities of college life. The last three years are spent in the School of Nursing in Baltimore or in the Training School of Mercy Hospital, which is also affiliated with the School of Medicine of the University. In the fifth year of the combined program certain elective courses such as Public Health Nursing, Nursing Education, Practical Sociology, and Educational Psychology are arranged.

Degree and Diploma

The Diploma in Nursing will be awarded to those who have completed satisfactorily the three-years' program.

The degree of Bachelor of Science and the Diploma in Nursing are awarded to students who complete successfully the prescribed combined academic and nursing program.

Scholarships

One scholarship has been established by the alumnae of the training school. It entitles a nurse to a six-weeks' course at Teachers College, 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 post-graduate study and special work.

An alumnae pin is presented by the Woman's Auxiliary Board to the student who, at the completion of three years, shows exceptional executive ability.

A scholarship of the value of $50.00, known as the Edwin and Leander M. Zimmerman Prize, is given in the senior year for practical nursing.

A scholarship of the value of $50.00, known as the Elizabeth Collins Lee Prize, is given in the senior year to the student whose work has been of the second highest excellence.

SCHOOL OF PHARMACY

A. G. Du Mez, *Dean.*

E. F. Kelly, *Advisory Dean.*

Executive Committee
A. G. Du Mez
E. F. Kelly
Charles C. Plitt
Glenn L. Jenkins
J. Carlton Wolf
B. Olive Cole
H. E. Wich

The School of Pharmacy was organized in 1841, largely at the instance of members of the Faculty of Medicine, and for a time the lectures were delivered at the Medical School. Later it became separated, and continued as an independent organization called the Maryland College of Pharmacy, until it finally became part of the University in 1904. With but one short intermission, which was prior to 1865, it has continuously exercised its functions as a teaching school of pharmacy.

Location

The School of Pharmacy is located at 6 and 8 South Greene Street, in close proximity to the Schools of Medicine, Law, and Dentistry.

Policy and Degrees

The chief purpose of this school is to prepare its matriculates for the intelligent practice of dispensing pharmacy, although certain advanced work intended to fit the student for service in the other branches of pharmacy is offered.

Upon completion of the first three years of the course, the diploma of Graduate in Pharmacy (Ph. G.) is awarded, which satisfies the college educational requirements of the various States for registration as a pharmacist.

The degree of Bachelor of Science in Pharmacy (B. S. in Phar.) will be given upon the successful completion of the work prescribed for the entire four years.

Combined Curriculum in Pharmacy and Medicine

A combined curriculum has been arranged with the School of Medicine of the University by which students may obtain the degree of Bachelor of Science in Pharmacy and Doctor of Medicine in seven years. Students who

successfully complete the first three years of the course in Pharmacy and an additional four semester hours in Zoology, and show that they are qualified by character and scholarship to enter the medical profession, are eligible for admission into the School of Medicine of the University; and upon the successful completion of the first two years of the medical course will be awarded the degree of Bachelor of Science in Pharmacy by the School of Pharmacy.

This privilege will be open only to students who maintain a uniformly good scholastic record during the first two years of the course in Pharmacy; and those who wish to avail themselves of it must so advise the School of Pharmacy before entering upon the work of the third year, in order that provision may be made for the additional instruction in Zoology.

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 applicant must have completed a four-year standard high school course or its equivalent. A minimum age of seventeen years is demanded except when the candidate is a graduate of an accredited high school or of an institution of equal grade.

Admission to the course in Pharmacy is by certificate issued by the Registrar of the University of Maryland, Lombard and Greene Streets, Baltimore, Md. The certificate is issued on the basis of credentials, or by examination, or by both. Evaluation of credentials can be made only by the Registrar, and all applicants, whether their entrance qualifications are clearly satisfactory as per the requirements for matriculation, outlined above, or not, must secure a certificate from the Registrar to be presented to the School of Pharmacy before they can be matriculated.

Applicants should secure an application blank for entrance from the Registrar of the University or from the office of the School of Pharmacy, and return it properly executed at the earliest possible date. Diplomas or certificates need not be sent. The Registrar will secure all credentials desired after the application blank has been received, and the applicant will be notified of the result of the investigation.

Applicants whose credentials do not meet the requirements must pass a satisfactory examination in appropriate subjects given by a recognized College Entrance Examination Board, to make up the required number of units. A fee is charged for these examinations.

Credit will be given for first-year pharmaceutical subjects to those students coming from schools of pharmacy holding membership in the American Association of Colleges of Pharmacy, provided they present a proper certificate of the satisfactory completion of such subjects and meet the entrance requirements of this school. Credit for general educational subjects will be given to those students presenting evidence of having completed work of equal value.

Requirements for Graduation

1. The candidate must possess a good moral character.

2. He must have completed successfully the work specified in the first three years of the course if a candidate for the Graduate in Pharmacy (Ph.G.) diploma; or four years if a candidate for the degree of Bachelor of Science in Pharmacy. In either case the last year must be taken in this school.

Matriculation and Registration

The Matriculation Ticket must be procured from the office of the School of Pharmacy, and must be taken out before entering the classes. All students after matriculation are required to register at the Office of the Registrar. The last date of matriculation is October 6th, 1930.

Expenses

	Tuition		*Laboratory and*	
Matriculation	*Resident*	*Non-Resident*	*Breakage*	*Graduation*
$10.00 (only once)	$200.00	$250.00	$30.00 (yearly)	$10.00

Tuition for the first semester and breakage fee shall be paid to the Comptroller at the time of registration; and tuition for the second semester and graduation fee (returned in case of failure) on or before February 2, 1931.

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.

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 livestock 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:

LIVE STOCK SANITARY SERVICE

JAMES B. GEORGE, *Director.*

816 Fidelity Building, Baltimore, Maryland.

This service has charge of the regulatory work in connection with the control of disease among animals. It is authorized by law to control outbreaks of rabies, anthrax, blackleg, scabies, Johne's disease, contagious abortion, etc. This service is also charged, in co-operation with the U. S. Bureau of Animal Industry, with the eradication of bovine tuberculosis. The hog cholera control work, which is conducted in co-operation with federal authorities, is also conducted under the general jurisdiction of this service. Much of the laboratory work necessary in conjunction with the identification of disease among animals is done in the University laboratories at College Park.

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. The officers of the department are:

E. N. Cory, State Entomologist
C. E. Temple, State Pathologist
T. B. Symons, Director of the Extension Service

FEED, FERTILIZER, AND LIME INSPECTION SERVICE

College Park, Maryland.

The Feed, Fertilizer, and Lime Inspection Service, a branch of the chemistry department of the University, is authorized to enforce the State Regulatory Statutes controlling the purity and truthful labeling of all feeds, fertilizers, and limes that are offered or exposed for sale in Maryland. This work is conducted under the general direction of the chemistry department in charge of Dr. L. B. Broughton.

SEED INSPECTION SERVICE

College Park, Maryland

The Seed Inspection Service is placed by law under the general supervision of the Maryland Experiment Station. This service takes samples of seed offered for sale, and tests them for quality and germination. Mr. F. S. Holmes is in immediate charge of the seed work, with Dr. H. J. Patterson, Director of the Experiment Station.

ASSOCIATED STATE DEPARTMENTS

STATE DEPARTMENT OF FORESTRY

The Department of Forestry was created and organized to protect and develop the valuable timber and tree products 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. While the power of the Forestry Department rests with the Regents of the University, acting through the Advisory Board, the detail work is in the hands and under the management of the State Forester, who is secretary of the Board; and all correspondence and inquiries should be addressed to him at 1411 Fidelity Building, Baltimore.

Scientific Staff:

F. W. Besley, State Forester.....Baltimore
Karl E. Pfeiffer, Assistant State Forester.....Baltimore
John R. Curry, Assistant Forester.....Baltimore
Fred B. Trenk, Assistant Forester.....College Park

Studies have been made of the timber interests 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 those trees growing within the right-of-way of any public highway in the State. A State forest nursery, established in 1914 and located at College Park, is under the jurisdiction of this Department.

STATE WEATHER SERVICE

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. The officers are:

Edward B. Mathews, Director.....Baltimore
John R. Weeks, Meteorologist, U. S. Custom House, Baltimore

THE STATE GEOLOGICAL AND ECONOMIC SURVEY

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:

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.

The following is the staff of the Survey:

Edward B. Mathews, State Geologist.....Baltimore
Edward W. Berry, Assistant State Geologist.....Baltimore
Charles K. Swartz, Geologist.....Baltimore
Joseph T. Singewald, Jr., Geologist.....Baltimore
Myra Ale, Secretary.....Baltimore
Grace E. Reed, Librarian.....Baltimore
Eugene H. Sapp, Clerk.....Baltimore

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:

Courses for undergraduates are designated by the numbers 1-99; courses for advanced undergraduates and graduates, 100-199; courses for graduate students, 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 parenthesis 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

PROFESSOR DEVAULT; ASSISTANT PROFESSOR RUSSELL

A. E. 1 f. *Agricultural Industry and Resources* (3)—Two lectures; one laboratory. Open to sophomores.

A descriptive course dealing with agriculture as an industry and its relation to physiography, movement of population, 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.

A. E. 2 f. *Agricultural Economics* (3)—Three lectures. Prerequisite, Econ. 3 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 and co-operation.

A. E. 3 s. *Advertising Agricultural Products* (3)—Three lectures.

Methods of giving publicity to agricultural products held for sale, naming the farm, advertising mediums; trade marks and slogans, roadside markets, demand vs. competition, legal aspects of advertising, advertising costs and advertising campaigns. (Not given in 1930-1931.)

For Advanced Undergraduates and Graduates

A. E. 101 s. *Transportation of Farm Products* (3)—Three lectures.

A study of the development of transportation in the United States, the different agencies for transporting farm products, with special attention to such problems as tariffs, rate structure, and the development of fast freight lines, refrigerator service, etc. (Russell.)

A. E. 102 s. *Marketing of Farm Products* (3)—Three lectures. Prerequisite, Econ. 3 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. *Co-operation in Agriculture* (3)—Three lectures. Prerequisite, Econ. 3 s.

Historical and comparative development of farmers' co-operative organizations; reasons for failure and essentials to success; present tendencies. (Russell.)

A. E. 104 s. *Agricultural Finance* (3)—Three lectures *Agricultural Credit* requirements; institutions financing agriculture; financing specific farm organizations and industries. *Taxation* of various farm properties; burden of taxation on different industries; methods of taxation; proposals for tax reform. *Farm insurance*—fire, crop, livestock, and life insurance—how provided, benefits, and needed extension. (Russell.)

A. E. 105 s. *Food Products Inspection* (2).

This course, arranged by the Department of Agricultural Economics in co-operation 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, and meats. Theoretical instruction covering the fundamental principles will be given in the form of lectures, while the demonstrational and practical work will be conducted through field trips to Washington, D. C., and Baltimore. (Staff.)

A. E. 109 y. *Seminar* (1-3).

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. 110 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.)

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 co-operation. (DeVault.)

A. E. 202 y. *Research and Thesis* (8)—Students will be assigned research work 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 a thesis. (De Vault.)

AGRICULTURAL EDUCATION AND RURAL LIFE

PROFESSORS COTTERMAN, CARPENTER; MR. WORTHINGTON.

For Advanced Undergraduates and Graduates

AG. ED. 100 s. *Survey of Teaching Methods for Agricultural Students* (3)—Two lectures; one laboratory. Open to juniors and seniors; required of juniors in Agricultural Education. Prerequisite, Ed. 101. Cannot be counted toward major for advanced degree in Agricultural Education.

The nature of educational objectives, the class period, steps of the lesson plan, observation and critiques, type lessons, lesson planning, class management. (Cotterman.)

AG. ED. 101 y. *Teaching Secondary Vocational Agriculture* (8)—Three lectures; one laboratory the first semester. One seminar period and practicum work to be arranged the second semester. Practicum work may be arranged during the first semester. Prerequisites, Ag. Ed. 100; A. H. 1, 2; Dairy 1; Poultry 1; Soils 1; Agronomy 1, 2; Hort. 1, 11; F. Mech. 101, 104; A. E. 1; F. M. 2. Cannot be counted toward major for advanced degree in Agricultural Education.

Types of schools and classes; administrative programs; qualifications of teachers; day class instruction—objectives, selection of projects, project instruction, selection of content for group instruction, methods of class period;

evening class instruction; part-time class instruction; equipment and other administrative problems; unit courses; student projects; investigations; reports. (Cotterman.)

AG. ED. 102 s. *Rural Life and Education* (3)—Three lectures.

Ancient and foreign rural communities; evolution of American rural communities; rural social institutions; social and cultural measurements, standards of living; the analysis of rural communities; community and educational programs; problems in leadership; investigations; reports. This 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.)

AG. ED. 103 s. *Objectives and Methods in Extension Education* (2-3). Two lectures.

Given under the supervision of the Extension Service, and designed to equip young men to enter the broad field of extension work. Methods of assembling and disseminating the agricultural information available for the practical farmer; administration, organization, supervision, and practical details connected with the work of a county agent, with club work and the duties of an extension specialist. Students will be required to gain experience under the guidance of men experienced in the respective fields. Traveling expenses for this course will be adjusted according to circumstances, the ability of the man, and the service rendered. (Cotterman and Extension Specialists.)

AG. ED. 104 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.)

AG. ED. 105 S. *School and Rural Community Studies* (2-5)—Summer Session only—Credits determined by amount and character of work done.

The function of special studies; typical surveys, their purposes and findings; types of surveys; sources of information; preparation of schedules; collection, tabulation, and interpretation of data. (Cotterman.)

AG. ED. 106 f. *Project Cost Accounting* (1)—One 2 hour practicum period per week.

Objectives in cost accounting in vocational agriculture; cost accounting as a device in developing the home project, contemporary developments; home projects, record books and systems; uses of home project records, standards in project work; parental interest in project records; publicity; permanent school project records; significant cases; investigations and reports. (Worthington.)

For Graduates

AG. ED. 201 f. *Comparative Agricultural Education* (3)—Prerequisite, Ag. Ed. 101.

State systems of instruction in agriculture are examined and evaluated from the standpoint of analysis of the work of the teacher; day-classes; evening; part-time instruction. Investigations and reports. (Cotterman.)

AG. ED. 202 s. *Supervision of Vocational Agriculture* (3)—Prerequisite, Ag. Ed. 101.

Analysis of the work of the supervisor; supervisory programs; policies; problems; contemporary developments; principles of supervision; investigations; reports. (Cotterman.)

AG. ED. 204 s. *Seminar in Agricultural Education* (3).

Problems in the administration and organization of Agricultural Education—prevocational, secondary, collegiate, and extension; individual problems and papers; current literature. (Cotterman.)

*ED. 202 f. *College Teaching* (3).

*ED. 203 s. *Problems in Higher Education* (3).

AGRONOMY

Division of Crops

PROFESSORS METZGER, KEMP; ASSISTANT PROFESSOR EPPLEY.

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.

AGRON 3 s. *Grading Farm Crops* (2)—One lecture; one laboratory. Prerequisites, Agron. 1 and 2.

Market classifications and grades as recommended by the United States Bureau of Markets, and practice in determining the grades.

AGRON. 4 f. *Grain and Hay Judging, Identification and Judging of Farm Crops* (1)—One laboratory. Prerequisites, Agron. 1 and 2.

A study of the classification of farm crops; practice in judging the cereals for milling, seeding, and feeding purposes; and practice in judging hay.

AGRON. 5 s. *Tobacco Production* (2)—One lecture; one laboratory. Offered only in even years, 1930, 1932, etc.

This course takes up in detail the handling of the crop from preparation of the plant bed through marketing, giving special attention to Maryland types of tobacco.

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* See courses under Education, page 182.

For Advanced Undergraduates and Graduates

AGRON. 103 f. Crop Breeding (2)—One lecture; one laboratory. Prerequisite, Gen. 101.

The principles of breeding as applied to field crops and methods used in crop improvement. (Kemp.)

AGRON. 120 s. *Cropping Systems and Methods* (2)—Two lectures. Prerequisites, Agron. 1 and Soils 1.

Principles and factors influencing cropping systems in the United States; study of rotation experiments; theories of cropping methods; and practice in arranging type farming systems. (Metzger.)

AGRON. 121 s. *Methods of Crop and Soil Investigations* (2)—One lecture; one laboratory.

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*—Credits determined by work accomplished.

The content of this course is similar to that of Agron. 103, 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*—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

PROFESSOR BRUCE, ASSISTANT PROFESSOR THOMAS, LECTURER THOM.

SOILS 1 s and f. *Soils and Fertilizers* (5)—Three lectures; two two-hour laboratory periods. Prerequisites, Geol. 1 f, Chem 1 y, Chem 13 s, or registration in 13 s.

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. (Not offered first semester 1930-31.)

SOILS 2 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 inter-relation 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 3 f. *Soil Surveying and Classification* (3)—Two lectures; one laboratory. Prerequisite, Soils 1.

A study of the principal soil provinces and regions of the United States, and especially of the soils of Maryland. The practical work includes a field survey, identification of soil types, and map making.

For Graduate Students

SOILS 104 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. (Thom.)

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, Geology 1, Soils 1, and Chemistry 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 HUSBANDRY

PROFESSOR MEADE; ASSISTANT PROFESSOR HUNT.

A. H. 1 f. *General Animal Husbandry* (3)—Two lectures; one laboratory.

Place of livestock in the farm organization. General principles underlying efficient livestock management. Brief survey of breeds, types, and market classes of livestock, together with an insight into our meat supply.

A. H. 2 f. *Feeds and Feeding* (3)—Two lectures; one laboratory.

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.

A. H. 3 s. *Principles of Breeding* (3)—Two lectures; one laboratory.

This course covers the practical aspects of animal breeding, including heredity, variation, selection, development, systems of breeding, and pedigree work.

A. H. 4 s. *Swine Production* (3)—Two lectures; one laboratory.

The care, feeding, breeding, management, and judging of swine, and the economics of the swine industry.

A. H. 5 f. *Beef Production* (2)—Two lectures; one laboratory.

The care, feeding, breeding, management of beef herds; fattening; and the economics of the beef industry.

A. H. 6 s. *Horse and Mule Production* (2)—One lecture; one laboratory.

The care, feeding, breeding, and management of horses. Market classes and grades and judging.

A. H. 7 s. *Sheep Production* (3)—Two lectures; one laboratory. Not offered in 1930-1931.

Care, feeding, breeding, and management of the farm flock. Judging of sheep and the grading of wool.

A. H. 8 f. *Meat and Meat Products* (2)—Two laboratories.

The slaughtering of meat animals and the production, preparation, and curing of meat and meat products.

A. H. 9-10 y. *Advanced Judging* (2)—One laboratory.

First Semester—The comparative and competitive judging of sheep and swine.

Second Semester—The comparative and competitive judging of horses and beef cattle. Trips to various stock farms throughout the state will be made. Such judging teams as may be chosen to represent the university will be selected from among those taking this course. Not offered in 1930-1931.

A. H. 11 s. *Markets and Marketing* (3)—Two lectures; one laboratory.

History and development, organization and status of the meat, wool, and horse industries. Market classes and grades of livestock. American livestock markets and how they function.

A. H. 12 y. *Research and Thesis* (4-6).

Work to be done by assignment and under supervision. Original investigation in problems in animal husbandry, the results of which research are to be presented in the form of a thesis, a copy of which must be filed in the department library.

For Advanced Undergraduates and Graduates

A. H. 101 s. *Nutrition* (3)—Two lectures; one laboratory. Senior year.

A study of digestion, assimilation, metabolism, and protein and energy requirements. Methods of investigation and studies in the utilization of feed and nutrients. (Meade.)

A. H. 102 y. *Seminar* (2)—One lecture. Senior and graduate students only. 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.)

For Graduates

A. H. 201 y. *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. (Staff.)

ASTRONOMY

PROFESSOR T. H. TALIAFERRO.

ASTR. 1 s. *Astronomy* (3)—Three lectures. Elective, but open only to juniors and seniors.

An elementary course in descriptive astronomy.

BACTERIOLOGY

PROFESSORS PICKENS, REED; ASSISTANT PROFESSORS WELSH, POELMA; MR. FABER

BACT, 1 f. or s. *General Bacteriology* (3)—Repeated second semester. One lecture; two laboratories. Sophomores.

A brief history of bacteriology; microscopy, bacteria and their relation to nature; morphology, classification; preparation of cultural media; sterilization and disinfection; microscopic and macroscopic examination of bacteria; classification, composition, and uses of stains; isolation, cultivation, and identification of aerobic and anaerobic bacteria; vital activities of bacteria.

BACT. 2 s. *General Bacteriology* (3)—One lecture; two laboratories.

Continuation of Bact. 1. Application of bacteriology to water, milk, foods, soils, and air; pathogens and immunity.

BACT. 3 s. *Household Bacteriology* (3)—One lecture; two laboratories. junior year.

A brief history of bacteriology, laboratory technique; care, preservation, and contamination of foods: Personal, home, and community hygiene.

BACT. 4 s. *Sanitary Bacteriology* (1)—One lecture; senior year, for Engineering students.

Application to water purification and sewage disposal.

For Advanced Undergraduates and Graduates

BACT. 101 y. *Dairy Bacteriology* (6)—One lecture; two laboratories. Juniors. Prerequisite, Bact. 1.

Historical sketch; relation of bacteria to dairy products; preparation of media; plating by dilution method; direct microscopic examination; kinds of bacteria in milk, and their development; pasteurization, by flash and hold methods; sources of contamination of milk; care of milk; abnormal milks; tests, and their relation to bacteria counts; fermented milks; bacteriological analysis of standard grades of milk and milk products; preparation of starters; requirements and standards for various grades of milk; public health requirements. (Poelma.)

BACT. 102 y. *Advanced Bacteriology* (3-10)—Juniors and seniors. Prerequisite, Bact. 1.

This course is intended primarily to give the student a chance to develop his own initiative. He will be allowed to decide upon his project and work it out as much as possible in his own way under proper supervision. In

this manner he will be able to apply his knowledge of bacteriology to a given problem in that particular field in which he is interested. He will get to know something of the methods of research. Familiarity with library practices and current literature will be included. (Pickens.)

BACT. 103 f. *Hematology* (2)—Senior year. Prerequisite, Bact. 1.

Procuring blood; estimating the amount of hemoglobin; color index; examination of red cells and leucocytes in fresh and stained preparations; numerical count of erythrocytes and leucocytes; differential count of leucocytes; sources and development of the formed elements of blood; pathological forms and counts. (Reed.)

BACT. 104 f. *Serology* (2-3)—Junior or senior year. Prerequisite, Bact. 2.

The theory and application of several serological tests, including the Compliment Fixation Reaction. (Poelma.)

BACT. 105 f. *Pathological Technique* (3)—Junior or senior year. Prerequisite, Bact. 1.

Examination of fresh material; free hand sections; fixation; frozen sections; decalcification; celloidin and paraffin imbedding processes; sectioning; general and special standing processes. (Reed.)

BACT. 106 f. *Comparative Anatomy and Physiology* (3)—Three lectures. Junior year.

Structure of the animal body; abnormal as contrasted with normal. The interrelationship between the various organs and parts as to structure and function. (Reed.)

BACT. 107 f. *Urinalysis* (2)—Junior or senior year. Prerequisite, Bact. 1. (Reed.)

BACT. 108 s. *Animal Hygiene* (3)—Three lectures or demonstrations. Senior year.

Care and management of domestic animals, with special reference to maintenance of health and resistance to disease. Prevention and early recognition of disease; general hygiene; sanitation; first aid. (Reed.)

BACT. 109 y. *Thesis* (4)—Senior year. Prerequisites, Bact. 1 and at least one of the advanced courses.

Investigation of given project, results of which are to be presented in the form of a thesis and submitted for credit toward graduation. (Pickens.)

BACT. 110 y. *Seminar* (2)—Senior year.

The work will consist of making reports on individual projects and on recent scientific literature. (Pickens and staff.)

BACT. 111 s. *Public Health* (1)—One lecture. Junior or senior year. Prerequisite, Bact. 1.

A series of weekly lectures on Public Health and its Administration, by the experts of the Maryland State Board of Health. (Pickens, in charge.)

For Graduates

BACT. 201 y. *Research Bacteriology* (4-12.)—Prerequisites, Bact. 1 and in certain cases, Bact. 103, depending upon the project. (Pickens.)

BACT. 202 y. *Research in Genital Diseases of Farm Animals.* Prerequisite, degree in Veterinary Medicine, from an approved veterinary college. Laboratory and field work by assignment. (Reed.)

BOTANY

PROFESSORS NORTON, TEMPLE.

(For other Botanical Courses see Plant Physiology and Plant Pathology.)

BOT. 1 f or s. *General Botany* (4)—Two lectures; two laboratories.

General introduction to botany, touching briefly on all phases of the subject and planned to give the fundamental prerequisites for study in the special departments.

BOT. 2 s. *General Botany* (4)—Two lectures; two laboratories. Prerequisite, Bot. 1.

A study of algae, bacteria, fungi, liverworts, mosses, ferns, and seed plants. The development of reproduction from the simplest form to the most complex; adjustment of plants to the land habit of growth; field trips to study the local vegetation; trips to the botanical gardens, parks, and greenhouses in Washington to study other plants of special interest. A cultural course intended also as foundational to a career in the plant sciences. (Temple.)

BOT. 3 s. *Systematic Botany* (2)—One lecture; one laboratory.

A study of the local flora and cultivated plants of the campus. A study is made of floral parts and the essential relations between the groups of flowering plants. Students become familiar with the systematic key used to identify plants. (Norton.)

BOT. 4 s. *General Mycology* (2)—One lecture; one laboratory.

Introductory comparative study of the morphology, life history, and classification of economic fungi. Not offered in 1931-1932. (Norton.)

BOT. 5 S. *General Botany* (4)—The same as Botany 1, but offered in the Summer School. Thirty lectures and thirty laboratories.

For Advanced Undergraduates and Graduates

BOT. 101 s. *Plant Anatomy* (2 or 3)—One lecture; one or two laboratories. Not offered in 1930-1931.

A study of the structures of roots, stems, leaves, flowers, and fruits; the origin and development of organs and tissue systems in vascular plants. (Temple.)

BOT. 102 s. *Methods in Plant Histology* (3)—One lecture; two laboratories. Prerequisite, Bot. 1. Not offered in 1931-1932.

Primarily a study in technique. It includes methods of the killing, fixing, imbedding, sectioning, staining, and mounting of plant materials. (Temple.)

BOT. 103 f or s. *Advanced Taxonomy* (3)—One lecture; two laboratories. Prerequisite, Bot. 1. Not offered in 1930-1931.

The course is offered for students who want more proficiency in systematic botany than the elementary course affords. A student who completes the course should be able to classify the grasses and other common plants of the state. (Norton.)

BOT. 105 s. *Economic Plants* (2)—One lecture; one laboratory.

The names, taxonomic position, native and commercial geographic distribution, and use of the leading economic plants of the world are studied. By examination of plant products in markets, stores, factories, and gardens, students become familiar with the useful plants both in the natural form and as used by man. Not offered in 1931-1932. (Norton.)

BOT. 106 f. *History and Philosophy of Botany* (1)—One lecture. Not offered in 1930-1931.

Discussion of the development of the ideas and knowledge about plants. (Norton.)

For Graduates

BOT. 202. *Special Studies of Fungi*—Credit hours according to work done. Prerequisite, Bot. 103.

Special problems in the structure or life history of fungi or the monographic study of some group of fungi. (Norton.)

BOT. 203. *Special Plant Taxonomy*—Credit hours according to work done. Prerequisite, Bot. 103.

Original studies in the taxonomy of some group of plants. (Norton.)

CHEMISTRY

PROFESSORS BROUGHTON, DRAKE, MCDONNELL;
ASSOCIATE PROFESSORS HARING, WILEY, WHITE;
MR. KAVELER, MR. WHEELER.

A. General Chemistry

CHEM. 1 A y. *General Chemistry* (8)—Two lectures; two labobratories.

A study of the non-metals and metals, the latter being studied from a qualitative standpoint. One of the main purposes of the course is to develop original work, clear thinking, and keen observation. This is accomplished by the unit-study method of teaching.

Course A is intended for students who have never studied chemistry, or have passed their high school chemistry with a grade of less than B.

CHEM. 1 B y. *General Chemistry* (8)—Two lectures; two laboratories.

This course covers much the same ground as Chemistry 1 A y, except that 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 of not less than B.

CHEM. 2 y. *Qualitative Analysis* (8)—Two lectures; two laboratories. 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.

For Advanced Undergraduates and Graduates

CHEM. 100 y. *Advanced Inorganic Chemistry* (6)—Two lectures; one laboratory. Prerequisite, Chem. 6 y.

A study of the rarer elements is made by comparing their properties with those of the more common elements. The course is based upon the periodic system, the electromotive series, and the electronic structure of matter. The laboratory is devoted to the preparation of pure, inorganic substances. (White.)

For Graduates

CHEM. 201 y. *Research In Inorganic Chemistry* (12)—Open to students working for the higher degrees. Prerequisite, a bachelor's degree in chemistry or its equivalent. (White.)

B. Analytical Chemistry

CHEM. 4 f and s. *Quantitative Analysis* (4)—Two lectures; two laboratories. Prerequisite, Chem. 1 y.

Quantitative analysis for pre-medical students with special reference to volumetric methods. (Wiley.)

CHEM. 5 y. *Determinative Mineralogy and Assaying* (4)—One lecture and one laboratory period. Prerequisite, Chem. 1 y.

The more important minerals are identified by their characteristic physical and chemical properties. Assays of gold, silver, copper, and lead are made. (Wiley.)

CHEM. 6 y. *Quantitative Analysis* (10)—Two lectures; three laboratory periods. Prerequisite, Chem. 1 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. (Wiley.)

CHEM. 7 y. *Analytical Chemistry* (10)—Two lectures and three laboratory periods. Prerequisite, Chem. 1 y.

This course includes the principal theories and operations of both qualitative and quantitative analysis. It is especially designed for industrial chemistry students. (Wiley.)

For Advanced Undergraduates and Graduates

CHEM 101 y. *Advanced Quantitative Analysis* (10)—Two lectures; three laboratories each semester.

A broad survey of the field of inorganic quantitative analysis. In the first semester mineral analysis will be given. Included in this will be analysis of silicates, carbonates, etc. In the second semester the analysis of steel and iron will be taken up. However, the student will be given wide latitude as to the type of quantitative analysis he wishes to pursue during the second semester. Prerequisite, Chem. 6 or its equivalent. (Wiley.)

CHEM. 202 y. *Research in Quantitative Analysis* (12)—Open to students working for the higher degrees. Prerequisite, a bachelor's degree in chemistry or its equivalent. (Wiley.)

C. Organic Chemistry

Laboratory work in any of the courses in organic chemistry may be carried out at any time between the hours of 8.20 and 4.20.

CHEM. 8 f or s. *Elementary Organic Chemistry* (5)—Three lectures; two laboratories. Prerequisite, Chem. 1 y.

The course includes an elementary study of the fundamentals of organic chemistry, and is designed to meet the needs of students specializing in chemistry and pre-medical students.

For Advanced Undergraduates and Graduates

CHEM. 116 y. *Advanced Organic Chemistry* (8 or 10)—Two lectures; two or three laboratory periods. Prerequisite, Chem. 8 f or s or its equivalent.

This course is devoted to a more advanced study of the compounds of carbon than is undertaken in Chem. 8 f or s. The three credit laboratory course is required of graduate students specializing in chemistry. Seniors and juniors may take the two credit laboratory course. The laboratory work includes quantitative determinations of halogen, nitrogen, carbon, and hydrogen in organic substances, and also preparation work more difficult than that encountered in the elementary course. The laboratory work of the second half year will be devoted principally to organic qualitative analysis. Required of students specializing in chemistry. Course 116 y may be taken without the laboratory work. (Drake.)

For Graduates

CHEM. 203 f. *Special Topics in Organic Chemistry* (2)—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. (Drake.)

CHEM. 204 s. *Special Topics in Organic Chemistry* (2)—A continuation of Chem. 203 f. Either this course or course 203 f will be given when there is sufficient demand. (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 those students whose laboratory experience has been insufficient for research in organic chemistry. (Drake.)

CHEM. 206 f. or s. *Organic Micro Analysis* (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. The course is open only to properly qualified graduate students, and the consent of the instructor is necessary before enrollment. (Drake.)

CHEM. 210. *Research in Organic Chemistry* (12)—Open to students working for the higher degrees. Prerequisite, a bachelor's degree in chemistry or its equivalent. (Drake.)

D. Physical Chemistry

CHEM. 10 y. *Elementary Physical Chemistry* (6)—Two lectures; one laboratory period. Prerequisites, Chem. 1 y; Physics 1 y; Math. 3 y.

This course, designed particularly for those unable to pursue the subject further, reviews the more theoretical points of inorganic chemistry from an advanced standpoint and lays a good foundation for more advanced work in physical chemistry.

For Advanced Undergraduates and Graduates

CHEM. 102 y. *Physical Chemistry* (10)—Three lectures; two laboratory periods. Prerequisites, Chem. 6 y; Physics 2 y; Math. 6 s. One term may be taken for graduate credit.

This course aims to furnish the student with a thorough background in the laws and theories of chemistry. The gas laws, kinetic theory, liquids, solutions, elementary thermodynamics, thermochemistry, equilibrium, chemical kinetics, etc. (Haring.)

For Graduates

Note: CHEM. 102 y or its equivalent is prerequisite for all advanced courses in physical chemistry.

CHEM. 212 y. *Colloid Chemistry* (8) or (4)—Two lectures; two laboratory periods: or two lectures only.

This is a thorough course in the chemistry of matter associated with surface energy. (Not given 1930-1931.) (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. (Not given 1930-1931.) (Haring.)

CHEM. 214 s. *Structure of Matter* (2)—Two lectures.

Subjects considered will be radioactivity, isotopes, the Bohr and Lewis-Langmuir theories of atomic structure, and allied topics. (Not given 1930-1931.) (Haring.)

CHEM. 215 f. *Catalysis* (2)—Two lectures.

This course consists of lectures on the theory and applications of catalysis. (Haring.)

CHEM. 216 s. *Theory of Solutions* (2)—Two lectures.

A detailed study will be made of the modern theory of ideal solutions, of the theory of electrolytic dissociation and of the recent developments of the latter. (Haring.)

CHEM. 217 y. *Electrochemistry* (8) or (4)—Two lectures; two laboratory periods; or two lectures only.

A study of the principles and some of the practical applications of electrochemistry. (Haring.)

CHEM. 218 y. *Chemical Thermodynamics* (4)—Two lectures. (To be offered whenever there is sufficient demand.)

A study of the methods of approaching chemical problems through the laws of energy. (Haring.)

CHEM. 219 y. *Research in Physical Chemistry* (12)— Open to students working for the higher degrees. Prerequisites, a bachelor's degree in chemistry or its equivalent and consent of the instructor. (Haring.)

E. Agricultural Chemistry

CHEM. 12 f. *Elements of Organic Chemistry* (4)—Three lectures; one laboratory. Prerequisite, Chem. 1 y.

The chemistry of carbon and its compounds. This course is particularly designed for students in Agriculture and Home Economics.

CHEM. 13 s. *Agricultural Chemical Analysis* (3)—One lecture; two laboratories. Prerequisite, Chem. 1 y.

An introductory course in the analysis of agricultural products with special reference to the analysis of feeding stuffs, soils, fertilizers, and insecticides.

CHEM. 14 f. *Chemistry of Foods* (4)—Two lectures; two laboratories. Prerequisite, Chem. 12 f.

The purpose of this course is to present the principles of chemistry as applied to foods and nutrition with especial reference to the fats, carbohydrates, proteins, enzymes, etc.

CHEM. 15 s. *Chemistry of Textiles* (4)—Two lectures; two laboratories. Prerequisite, Chem. 12 f.

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.

For Advanced Undergraduates and Graduates

CHEM. 104 f or s. *General Physiological Chemistry* (4)—Two lectures; two laboratories. Prerequisite, Chem. 12 f or its equivalent.

A study of the chemistry of the fats, carbohydrates, proteins, and other compounds of biological importance. This course is intended for students whose major is in biological subjects, and as a prerequisite to certain advanced courses in this department. (Broughton.)

CHEM. 106 f or s. *Dairy Chemistry* (4)—One lecture; three laboratories. Prerequisite, Chem. 12 f.

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. (Broughton.)

CHEM. 108 s. *Chemistry of Nutrition* (4)—Two lectures; two laboratories. Prerequisite, Chemistry 104 f or its equivalent.

Lectures on the chemistry of nutrition, laboratory determination of fuel value of food and the heat production of man under various conditions, metabolism, the effects on small animals of diets consisting of purified food constituents, and the effects of selected diets on the formation of waste products in the body. (Broughton.)

CHEM. 115 f or s. *Organic Analysis* (4)—One lecture; three laboratories. Prerequisite, Chem. 6 y and 8 y.

This course gives a connected introductory training in organic analysis, especially as applied to plant and animal substances and their manufactured products. The greater part of the course is devoted to quantitative methods for food materials and related substances. Standard works and the publications of the Association of the Official Agricultural Chemists are used freely as references. (Broughton.)

For Graduates

CHEM. 220 f or s. *Special Problems* (4 to 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 ten hours each week. Prerequisites, Chem. 104 f 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 certain 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. (Broughton.)

CHEM. 221 f or s. *Tissue Analysis* (3)—Three laboratories. Prerequisite, Chem. 12 f or its equivalent.

A discussion and the application of the analytical methods used in determining the inorganic and organic constituents of live tissue. (Broughton.)

CHEM. 224 f or s. *Research* (5 to 10)—Agricultural chemical problems will be assigned to graduate students who wish to gain an advanced degree. (Broughton.)

F. Industrial Chemistry

For Advanced Undergraduates and Graduates

CHEM. 110 y. *Industrial Chemistry* (6)—Three lectures. Prerequisites, Chem. 6 y and 8 y.

A study of the principal chemical industries; factory inspection, trips and reports; the preparation of a thesis on some subject of importance in the chemical industries. (————.)

CHEM. 111 y. *Engineering Chemistry* (2)—One lecture. A course for engineering students.

A study of water, fuels and combustion, the chemistry of engineering materials, etc. Problems typical of engineering work. (————.)

CHEM. 112 f. or s. *Gas Analysis* (3)—One lecture; two laboratories. Prerequisite, Chem. 6 y.

An experimental study of the methods of determining quantitatively the common gases. Flue gas analysis and its significance. (————.)

For Graduates

CHEM. 222. *Unit Processes of Chemical Engineering* (3)—Three lectures. Prerequisite, consent of instructor.

A theoretical discussion of evaporation, distillation, filtration, etc. Problems. (————.)

CHEM. 223 y. *Research in Industrial Chemistry.* The investigation of special problems and the preparation of a thesis toward an advanced degree. (————.)

G. Chemical Seminar

CHEM. 226 y (2)—Required of *all* graduate students in chemistry. The students are required to prepare reports of papers in the current literature. These are discussed in connection with the recent advances in the subject. (The Chemistry staff.)

DAIRY HUSBANDRY

PROFESSOR MEADE; ASSISTANT PROFESSORS INGHAM, MUNKWITZ.

D. H. 1 s. *Farm Dairying* (3)—Two lectures; one laboratory.

Types and breeds of dairy cattle, the production and handling of milk on the farm, use of the Babcock test starters, cottage cheese, and farm buttermaking.

D. H. 2 f. *Dairy Production* (3)—Two lectures; one laboratory.

Breeds of dairy cattle, their characteristics and adaptability. Methods of herd management, feeding and breeding operations, dairy herd improvement, and other factors concerned in the efficient and economical production of milk. Advanced registry requirements and dairy cattle judging.

D. H. 3 s. *Advanced Dairy Cattle Judging* (1)—One laboratory.

Comparative judging of dairy cattle. Trips to various leading dairy farms will be made. Such dairy cattle judging teams as may be chosen to represent the University will be selected from among those taking this course.

D. H. 4 y. *Dairy Manufacturing* (3)—One lecture; two laboratories. Not offered in 1930-1931.

Manufacture of butter, cheese, and ice-cream, and the preparation of culture buttermilk. Study of cream separation, pasteurization, and processing of milk and cream. Refrigeration. The second semester work will be devoted largely to the study of ice-cream, and must be preceded by the work of the first semester.

D. H. 5 f. *Market Milk* (4)—Three lectures; one laboratory.

The course is so planned as to cover the commercial and economic phases of market milk, relating more particularly to cost of production and distribution, processing, milk plant construction and operation, sanitation, and merchandizing. Dairy farms and commercial dairy plants will be visited and their plans of construction, arrangement of equipment, and method of operation carefully studied.

D. H. 6 s. *Marketing and Grading of Dairy Products* (2)—One lecture; one laboratory.

Dairy marketing from the standpoint of producer, dealer, and consumer; market grades and the judging of dairy products.

D. H. 7 s. *Dairy Plant Technique* (2)—One lecture; one laboratory. Prerequisites, D. H. 2; Bact. 103; Chem. 106.

This course is designed to give students practice in the application of dairy technology. Commercial dairy laboratory tests will be made and their economic value as they relate to the dairy industry studied.

D. H. 8 y. *Research and Thesis* (4-6)—This work to be done by assignment and under supervision. Opportunity will be given to study and summarize the data on some special problem or to carry on original investigations in problems in Dairy Husbandry. The results of such study or problems must be presented in the form of a thesis, a copy of which shall be filed in the department library.

D. H. 9 s. *Dairy Accountancy* (2)—One lecture; one laboratory. Installation and operation of accounting systems in dairies and ice-cream plants. Inventories, income and expenditure, and labor distribution; their calculation and utilization in determining the cost of the finished product.

For Advanced Undergraduates and Graduates

D. H. 101 s. *Advanced Breed Study* (2)—One lecture; one laboratory. Breed Association rules and regulations, important families and individuals, pedigree studies. Work largely by assignment. (Ingham.)

D. H. 102 s. *Advanced Dairy Manufacturing* (3)—Hours to be arranged as to lecture and laboratory. Prerequisite, D. H. 4.

Plant and laboratory management, storage problems. Study of costs of production, accounting systems, purchase of equipment and supplies, market conditions, relation of the manufacturer to the shipper and dealer.

In this course the student will be required to act as helper and foreman, and will be given an opportunity to participate in the general management of the dairy plant. Visits will be made to nearby dairies and ice-cream establishments. (Munkwitz.)

D. H. 103 y. *Seminar* (2)—Students are required to prepare papers based upon current scientific publications relating to dairying or upon their research work for presentation before and discussion by the class. (Staff.)

For Graduates

D. H. 201 y. *Research.* Credit to be determined by the amount and quality of work done. Students 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 the results in the form of a thesis. (Staff.)

ECONOMICS AND SOCIOLOGY

ASSISTANT PROFESSORS JOHNSON, DODDER;
MR. DANIELS, MR. BELLMAN, MR. CARPENTER.

A. Economics

SOC. SCI. 1 y. *Elementary Social Sciences* (6)—Three lectures. Credit not given unless the full-year course is completed. An orientation course in the Social Sciences. Open to freshmen and sophomores. If taken by juniors or seniors only two credits per semester will be granted.

This course deals with the basis and nature of society; the process of social evolution; the economic organization of society; the rise of government and law as institutions; and the nature and extent of social control of man's activities; problems of citizenship. It forms the foundation upon which the principles of economics and sociology, and the science of government are based.

ECON. 1 f. *Economic Geography and Industry* (3)—Three lectures.

An examination of the principal geographical phenomena which form the basis of the economic life of man. The principal natural resources utilized in modern civilization; their distribution upon the surface of the earth in characteristic regions, the industrial development of those regions; routes of trade between the major producing regions.

ECON. 2 s. *History of World Commerce* (3)—Three lectures.

The development of commerce from the early ages until the present time. The rise and fall of commercial institutions and their economic reactions

upon the social structure throughout history. Discoveries and inventions leading to the industrial revolution and the rise of the modern factory system. Post-war changes in the modern economic organization.

ECON. 3 f or s. *Principles of Economics* (3)—Three lectures.

A study of the general principles of economics; production, exchange, distribution, and consumption of weath. Separate sections are organized for Engineering and Agriculture students.

ECON. 4 s. *Principles of Economics* (3)—Three lectures. Prerequisite, Econ. 3 f. or s.

A continuation of Economics 3 f, with emphasis on the study of modern economic problems.

For Advanced Undergraduates and Graduates

ECON 101 f. *Money and Credit* (2)—Two lectures. Prerequisite, Econ. 4 s or consent of instructor.

A study of the origin, nature, and functions of money, monetary systems, credit and credit instruments, prices, interest rates, and exchanges. (Johnson.)

ECON. 102 s. *Banking* (2)—Two lectures. Prerequisite, Econ. 101 f.

Principles and practice of banking in relation to business, commercial banking, trust companies, savings banks, agricultural financial organizations, Federal Reserve System. (Johnson.)

ECON. 103 f. *Investments* (3)—Three lectures. Prerequisite, Econ. 4 s and senior standing.

Classes of securities, stocks and bonds, railroad, public utility, real estate securities, government, state, and municipal bonds, stock and bond houses, taxation of investments. (Johnson.)

ECON. 104 f. *Public Finance* (2)—Two lectures. Prerequisite, Econ. 4 s. or consent of instructor.

The nature of public expenditures, sources of revenue, the principles of taxation, an examination of types of taxes to determine their effects upon the individual and the community. Federal taxation in the United States, public credit, national debt, and budget of the United States. (Daniels.)

ECON. 105 f. *Business Organization and Operation* (2)—Two lectures. Prerequisite, Econ. 4 s.

An introductory course dealing with the fundamental principles of business organization and management. The evolution of management, forms of business enterprises, administration, types of internal organization, planning, purchasing, and personnel problems. Emphasis is placed upon the application of scientific methods in the solution of business problems. (Dodder.)

ECON. 106 s. *Corporation Finance* (2)—Two lectures. Prerequisite, Econ. 4 s.

Principles of financing, the corporate form and its status before the law, owned and borrowed capital, basis of capitalization, sources of capital funds, sinking funds, distribution of surplus, corporation failures, reorganizations, receiverships, and holding companies. (Dodder.)

ECON. 107 f. *Business Law* (3)—Three lectures. The aim of this course is to train students for practical business affairs, giving the legal information necessary to an understanding of the rights and liabilities involved in business transactions. Some phases of the work are requisites and forms of contracts and remedies for their breach; negotiable instruments, agency, partnership, corporations, real and personal property, sales, mortgages, and insurance. (Carpenter.)

ECON. 108 s. *Business Law* (3)—Three lectures (continuation of Econ. 107 f.). Prerequisite, Econ. 107 f. (Carpenter.)

ECON. 109 y. *Introductory Accounting* (6)—Two lectures; one laboratory.

This course has three aims; namely, to give the prospective business man an idea of accounting as a means of control, to give him a working knowledge of accounting fundamentals, and to serve as a basic course for advanced and special accounting. Theory of debits and credits, ledger, special journals, trial balance, work sheets, statements, control accounts, adjustment and closing entries. Change of partnership form to corporation. Voucher systems, statements, and special accounts peculiar to corporation accounting. (Dodder.)

ECON. 110 y. *Principles of Accounting* (6)—Three lectures. Prerequisite, Econ. 109 y.

Theory of asset and liability accounts. Agency and branch accounting, consignments, venture accounts, and working paper operation. Correction of statements, special phases of corporation accounting, such as capital stock, stock subscriptions, unearned income, surplus, good-will, fixed assets, depreciation, contingent liabilities, and mergers and consolidation. Introduction of accounting systems for manufacturing, mercantile, and financial institutions. (Dodder.)

ECON. 111 s. *Railway Transportation* (3)—Three lectures. Prerequisite, Econ. 3 f or s.

Development of the railway net of the United States; railroad finance and organization; problems of railway maintenance and method of conducting transportation; theory of railway rates; personal and local discrimination; geographical location and market competition; railway agreements; regulation by State and Federal governments; recent legislation. (Daniels.)

ECON. 112 f. *Public Utilities* (2)—Two lectures. Prerequisite, Econ. 4 s. or consent of instructor. (Not offered in 1930-1931.)

An examination of the fundamental basis for the concept of certain forms of business as peculiarly essential to the public welfare. Problems of rates, management, and finance of corporations engaged in supplying electricity, gas, street railway, telegraph and telephone service to the public. Government regulation and supervision of rates and finance. (Daniels.)

ECON. 113 s. *Life Insurance* (2)—Two lectures. Prerequisite, Econ. 4 s.

Nature and use of life insurance, classification of policies, mortality tables; calculation of premiums, reserves, and dividends, loading, fraternal, assessment, industrial, disability and group insurance. (Johnson.)

ECON. 114 s. *Property Insurance* (2)—Two lectures. Prerequisite, Econ. 4 s. (Not offered in 1930-1931.)

Fire, marine, automobile, and miscellaneous forms of property insurance. Rates, reserves, underwriters, agencies and brokers, reinsurance. (Johnson.)

ECON. 115 y. *History of Economic Theory* (4)—Two lectures. Prerequisite, Econ. 4 s. and senior standing.

History of economic doctrines and theories from the eighteenth century to the modern period, with special reference to the theories of value and distribution. (Johnson.)

ECON. 116 s. *Foreign Trade* (3)—Three lectures. Prerequisites, Econ. 1 f and Econ 4 s.

A study of various business methods in foreign countries. Major differences between the conduct of domestic and foreign commerce. Survey of practices generally adopted in international shipping, banking, and trading. (Daniels.)

ECON. 117 f. *Marketing Methods* (3)—Three lectures. Prerequisite, Econ. 4 s.

A study of the activities of producer, wholesaler, and retailer in the distribution of goods to the consumer, including merchandizing, advertising and sales management, credit policies, and market analysis. (Johnson.)

For Graduates

ECON. 201 y. *Thesis* (4-6)—Graduate standing. (Members of the staff.)

Sociology

SOC. 2 f. *Principles of Sociology* (3)—Three lectures.

The development of human nature; personality as a social product; primary groups; isolation; forms of social interaction; social forces and processes; the structure, organization, and activities of society; social control and social change.

SOC. 3 s. *Cultural Anthropology* (2)—Two lectures.

Nature and diffusion of early cultures; sentiments, moral attitudes, and mental traits of primitive man; primitive social organizations and activities; contemporary primitive cultures. Museum exhibits will be correlated with class room work.

SOC. 4 f. *Rural Sociology* (2)—Two lectures.

Historical and psychological backgrounds of rural life; the significance of isolation; factors tending to diminish isolation; structure and function of rural communities; social factors influencing the development of rural communities and institutions; co-operation and the expansion of rural life.

Soc. 5 s. *Urban Sociology* (2)—Two lectures.

The process of urbanization; its social significance; its tendency to modify human relationships and social institutions. Special problems which arise with the growth of cities.

For Advanced Undergraduates and Graduates

Soc. 101 y. *Social Problems and Institutions* (4)—Two lectures. Prerequisite, Soc. 2 f.

Individual and group mal-adjustment, causative factors, social complications; techniques in social restoration; public and private organizations administering social treatment; the development of social work. Visits to some of the major social agencies are correlated with the classroom work. (Bellman.) (Not offered 1930-31.)

Soc. 102 f. *Social Aspects of Labor Problems* (2)—Two lectures. Prerequisite, consent of instructor.

The social function of industry; existing relations between employer, employee, and consumer; labor problems as types of social mal-adjustment; factors in causation; present and proposed approaches to industrial equilibrium. (Bellman.)

Soc. 103 s. *History of Social Theory* (3)—Three lectures. Prerequisite, Soc. 2 f. Open only to seniors.

A survey of man's attempt to understand, explain, and control social organization. The origin of Sociology and its present progress toward becoming the science of human relationships. (Bellman.)

(See Education, Agricultural Education and Rural Life.)

EDUCATION

PROFESSORS SMALL, COTTERMAN; ASSOCIATE PROFESSOR SPROWLS; ASSISTANT PROFESSOR LONG; MISS SMITH, MISS ROSASCO, MR. BRECHBILL.

A. History and Principles

ED. 1 y. *Educational Guidance* (2)—One lecture. Required of students registered in the College of Education; elective for others.

This course is designed to assist students in adjusting themselves to the demands and problems of college and professional life and to guide them in the selection of college work during subsequent years. Among the topics discussed are the following: student finances; student welfare; intellectual ideals; recreation and athletics; study problems; general reading; student organization; student government; the curriculum; election of courses; the selection of extra-curricular activities.

ED. 2 f. *Public Education in the United States* (2)—Required of all sophomores in Education.

A study of the theory and practice of public education in the United States as it has been developed and is now organized. The emphasis will

be on elementary education and secondary education, with proportionate treatment of vocational education and relations of elementary and secondary education to higher education.

ED. 3 s. *Educational Hygiene* (2)—Open to sophomores and juniors. Required of sophomores in Education. Seniors not admitted.

Elements of general, individual, and group hygiene; causes of health and disease; habits; knowledge and ideals of health; health as an objective of education.

For Advanced Undergraduates and Graduates

ED. 101 f. *Educational Psychology* (3)—Open to juniors and seniors. Required of all juniors in Education.

General characteristics and use of original tendencies; principles of mental development; the laws and methods of learning; experiments in rate of improvement; permanence and efficiency; causes and nature of individual differences; principles underlying mental tests; principles which should govern school practices. (Sprowls.)

ED. 102 s. *Technic of Teaching* (3)—Three lectures; one laboratory. Required of juniors in Education. Prerequisite, Ed. 101 f.

The nature of educational objectives; steps of the lesson plan; observation and critiques; survey of teaching methods; type lessons; lesson planning; class management. (Long.)

ED. 103 s. *Principles of Secondary Education* (3)—Required of all seniors in Education. Prerequisites, Ed. 101 f, Ed. 102 s, and full senior standing.

Evolution of secondary education; articulation of the secondary school with the elementary school, college, and technical school, and with the community and the home; the junior high school; programs of study and the reconstruction of curricula; teaching staff; student activities. (Small.)

ED. 104 f. *History of Education* (3)—Senior Elective.

History of the evolution of educational theory, institutions, and practices. Emphasis is upon the modern period. (Small.)

ED. 105 f. *Educational Sociology* (3)—Three lectures.

The sociological foundations of education; the major educational objectives; the function of educational institutions; the program of studies; objectives of the school subjects; group needs and demands; methods of determining educational objectives. (Cotterman.)

ED. 106 s. *Advanced Educational Psychology* (3)—Prerequisites, Ed. 101 f and Ed. 102 s. The latter may be taken concurrently with Ed. 106 s.

Principles of genetic psychology; nature and development of the human organism; development and control of instincts. Methods of testing intelligence; group and individual differences and their relations to educational practice. Methods of measuring rate of learning; study of typical learning experiments. (Sprowls.)

ED. 107 f. *Educational Measurements* (3)—Prerequisites, Ed. 101 f and Ed. 102 s.

A study of typical educational problems involving educational scales and standard tests. Nature of tests, methods of use, analysis of results and practical applications in educational procedure. Emphasis will be upon tests for high school subjects. (Sprowls.)

ED. 108 s. *Mental Hygiene* (3)—Prerequisite, Ed. 101 f or Psychol. 1 f or s or equivalent.

Normal tendencies in the development of character and personality. Solving problems of adjustment to school and society; obsessions, fears, compulsions, conflicts, inhibitions, and compensations. Methods of personality analysis. (Sprowls.)

ED. 109 y. *Child Development* (4)—Seniors and graduate students. Prerequisite, H. E. Ed., 102 f or equivalent.

A survey of existent knowledge of the physiological, psychological, and psychiatric development of children. This course is given at the Washington Child Research Center, Tuesday and Thursday at 4 P. M. (Sherman.)

AG. ED. 102 s. *Rural Life and Education.*

AG. ED. 105 f. *School and Rural Community Surveys.*

(See Agricultural Education.)

For Graduates

ED. 201 y. *Seminar in Education* (6)—(The course is organized in semester units.)

Problems in educational organization and administration. Study of current literature; individual problems. (Small.)

ED. 202 f. *College Teaching* (3)—One seminar period.

Analysis of the work of the college teacher; objectives; nature of subject matter; nature of learning; characteristics of college students; methods of college teachers; measuring results; extra-course duties; problems; investigations; reports. (Cotterman.)

ED. 203 s. *Problems in Higher Education* (3)—One double period a week. Lectures, surveys, and individual reports. Prerequisite, Ed. 202 f.

American collegiate education; status of the college teacher; collegiate education in foreign countries; demands upon institutions of higher learning; tendencies in the reorganization of collegiate education; curriculum problems; equipment for teaching. (Cotterman.)

ED. 204 s. *Chemical Education* (2)—Two lectures. Open to graduate students whose major is Chemistry. Prerequisites, Ed. 101 f and Ed. 202 f.

Recent developments in the field of chemical education methods, laboratory design, equipment, etc. Required of all students qualifying for college chemistry teaching.

ED. 205 f-s. *Psychiatric Problems in Education* (3-3).

This course is open to graduate students who have sufficient background in psychology and education and have demonstrated ability to undertake a minor research. Conducted at the Washington Child Research Center. Hours to be arranged. (Sherman.)

ED. 206 y. *Seminar in Psychology* (6).

For candidates for advanced degrees who are working on special problems. Hours to be arranged. (Sprowls.)

B. Methods in Arts and Science Subjects (High School)

ED. 110 y. *English in Secondary Schools* (6)—Special methods and supervised teaching. Required of seniors preparing to teach English. Prerequisites, Ed. 101 f and 102 s.

Objectives in English in the different types of secondary schools; selection of subject matter; State requirements; interpretation of the State Course of Study in terms of modern practice and group needs; organization of materials; lesson plans; measuring results; observations; class teaching; critiques. (Smith.)

ED. 111 y. *History and Civics in Secondary Schools* (6)—Special methods and supervised teaching. Required of seniors preparing to teach history. Prerequisites, Ed. 101 f and 102 s; H. 1 y and H. 2 y.

Objectives of history and civics in secondary schools; selection of subject matter; parallel reading; State requirements and State courses of study; the development of civics from the community point of view; reference books, maps, charts, and other auxiliary materials; the organization of materials; lesson plans; measuring results; observations; class teaching; critiques. (Long.)

ED. 112 y. *Foreign Language in Secondary Schools* (6)—Special methods and supervised teaching. Required of seniors preparing to teach foreign language. Prerequisites, Ed. 101 f and 102 s.

Objectives of foreign language in secondary schools; selection of subject matter; State requirements and State courses of study; the organization of material for teaching; lesson plans; special devices and auxiliary materials; observation; class teaching; critiques. (Rosasco.)

ED. 113 y. *Mathematics in Secondary Schools* (6)—Special methods and supervised teaching. Required of seniors preparing to teach mathematics. Prerequisites, Ed. 101 f and 102 s.

Objectives of mathematics in secondary schools; historic retrospect; selection of subject matter; State requirements and State courses of study; proposed reorganizations; lesson plans; textbooks and supplementary materials; measuring results; standard tests; observations; class teaching; critiques. (Brechbill.)

ED. 114 y. *Science in Secondary Schools* (6)—Special methods and supervised teaching. Required of seniors preparing to teach science. Prerequisites, Ed. 101 f and 102 s.

Objectives of science in secondary schools; historic retrospect; selection of subject matter; State requirements and State courses of study; textbooks, reference works, and other sources of materials; the organization of materials for instruction; methods of the class period; lesson plans; organization of laboratory instruction; notebooks; measuring results; standard tests; observation; class teaching; critiques. (Brechbill.)

ENGINEERING

PROFESSORS JOHNSON, CREESE, STEINBERG, NESBIT; ASSISTANT PROFESSORS HODGINS, HOSHALL, SKELTON, BAILEY; DR. RESSER, MR. PYLE, MR. HENNICK

Civil Engineering

C. E. 101 f. *Elements of Railroads* (3)—Two lectures; one laboratory. Prerequisite, Surv. 2 s. Required of juniors in Civil Engineering.

The theory and practice of railroad surveys, alignment and earthwork. Preliminary steps toward complete plans for a short railroad. (Skelton.)

C. E. 102 s. *Elements of Design of Masonry Structures* (2)—Two lectures. Prerequisite, Mech. 2 y. Required of juniors in Civil Engineering.

The theory and elementary design of structures of masonry, including plain and reinforced concrete. Analysis of stresses in beams, columns, retaining walls, and dams. (Steinberg.)

C. E. 103 s. *Elements of Design of Steel Structures* (3)—Two lectures; one laboratory. Prerequisite, Mech. 2 y. Required of juniors in Civil Engineering.

The theory and elementary design of steel structures. Analysis of stresses in roof trusses, plate girders, and bridges. (Skelton.)

C. E. 104 s. *Elements of Steel Design* (2)—One lecture; one laboratory. Required of juniors in Mechanical Engineering.

Design of steel beams and columns. Analysis of roof trusses, plate girders, and traveling cranes. Particular application to industrial buildings. (Skelton.)

C. E. 105 y. *Buildings, Masonry and Steel* (8)—Three lectures; one laboratory. Prerequisite, C. E. 102 s and C. E. 103 s. Required of seniors in Civil Engineering.

A continuation of C. E. 102 s and C. E. 103 s with particular application to the design of buildings both of masonry and of steel. (Skelton.)

C. E. 106 y. *Bridges, Masonry and Steel* (8)—Three lectures; one laboratory. Prerequisite, C. E. 102 s and C. E. 103 s. Required of seniors in Civil Engineering.

A continuation of C. E. 102 s and C. E. 103 s with particular application to the design of bridges both of masonry and of steel. (Steinberg.)

C. E. 107 f. *Highways* (4)—Three lectures; one laboratory. Prerequisites, Surv. 101 f, Mech. 2 y. Required of seniors in Civil Engineering.

Location, construction, and maintenance of roads and pavements. Highway contracts and specifications, estimates and costs, highway work, highway legislation, highway economics, and highway transportation. The course will include,in addition to lecture and classroom work, field inspection trips. (Johnson.)

C. E. 108 y. *Sanitation* (6)—Three lectures. Prerequisite, Mech. 2 y. Required of seniors in Civil Engineering.

Methods of estimating consumption and designing water supply and sewerage systems. (Pyle.)

C. E. 109 s. *Thesis* (4)—Required of seniors in Civil Engineering.

In this course 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 reports of progress are required, and frequent conferences are held with the faculty members to whom the student is assigned for advice. A written report is required to complete the work. (Johnson.)

Drafting

DR. 1 y. *Engineering Drafting* (2)—One laboratory. Required of all freshmen in Engineering.

Freehand Drawing—Lettering, exercises in sketching of technical illustrations and objects, proportion and comparative measurements.

Mechanical Drawing—Use of instruments, projections and working drawings, drawing to scale in pencil and in ink, topographic drawing, tracing and blue printing.

DR. 2 y. *Descriptive Geometry* (4)—Two laboratory periods. Prerequisite, Dr. 1 y. Required of all sophomores in Engineering.

Orthographic projection as applied to the solution of problems relating to the point, line, and plane, intersection of planes with solids, and development. Generation of surfaces; planes, tangent and normal to surfaces; intersection and development of curved surfaces. Shades, shadows, and perspective.

Electrical Engineering

E. E. 101 f. *Industrial Application of Electricity* (3)—Three lectures. Prerequisites, Phys. 2 y, Math. 7 y.

The principles and practice of the application of direct and alternating current generators and motors to specific industrial processes. (Creese.)

E. E. 102 y. *Direct Currents* (10)—Three lectures; two laboratories. Prequisites, Phys. 2 y and Math. 7 y.

Principles of design, construction, and operation of direct current generators and motors and direct current control apparatus. The construction, characteristics, and operation of primary and secondary batteries and the auxiliary control equipment. Study of elementary alternating current circuits.

Experiments on the calibration of laboratory instruments, the manipulation of precision instruments, battery characteristics, and the operation and characteristics of direct current generators and motors. (Hodgins.)

E. E. 103 y. *Electrical Machine Design* (2)—One laboratory. Prerequisites, Phys. 2 y, Math. 7 y, and to take concurrently with E. E. 102 y.

Materials of construction and design of the electric and magnetic circuits of direct current generators and motors. (Hodgins.)

E. E. 104 y. *Alternating Currents* (10)—Three lectures; two laboratories. Prerequisite, E. E. 102 y.

Analytical and graphic solution of problems on single phase and polyphase circuits; construction, characteristics, and operation of all types of alternating current generators and motors; switchboard appliances, the use of the oscillograph; alternating current power measurements. (Creese.)

E. E. 105 y. *Electrical Machine Design* (3)—One laboratory first semester; two laboratories second semester. Prerequisites, E. E. 103 y, M. E. 101 f, and to take concurrently E. E. 104 y.

Materials of construction and design of the electric and magnetic circuits of alternating current generators,motors, and transformers. (Hodgins.)

E. E. 106 y. *Electric Railways and Power Transmission* (7)—Three lectures first semester; four lectures second semester. Prerequisite, E. E. 102 y, and to take concurrently E. E. 104 y.

Traffic studies, train schedules, motor characteristics, and the development of speed-distance and power-time curves, systems of control, motors and other railway equipment, electrification system for electric railways, including generating apparatus, transmission lines, substations and distribution of electrical energy for car operation; electrification of steam roads and application of signal systems, problems in operation from the selection of proper car equipment to the substation apparatus.

Survey of the electrical equipment required in central stations and substations, transmission of electric power, practical problems illustrating the principles of installation and operation of power machinery. (Hodgins.)

E. E. 107 y. *Telephones and Telegraphs* (7)—Three lectures first semester; three lectures and one laboratory second semester. Prerequisite, E. E. 102 y, and to take concurrently E. E. 104 y.

History and principles of magneto telephone and variable resistance transmitter, carbon transmitter, telephone receiver, induction coils, and calling equipment. These components of the telephone then are studied as a complete unit in the local battery and common battery telephones. Magneto and common battery switchboards used in telephone exchanges, automatic telephones, and the operation of simple, duplex, and quadruplex telegraphy. Solution of analytical problems on telephone transmission.

In the laboratory the units are assembled and operated. (Hodgins.)

E. E. 108 y. *Radio Telegraphy and Telephony* (7)—Two lectures and one laboratory first semester; three lectures and one laboratory second semester. Prerequisite, E. E. 102 y, and to take concurrently E. E. 104 y.

Principles of radio telegraphy and telephony, design, construction, and operation of transmitting and receiving apparatus, and special study of the use of the vacuum tube for short wave transmitting and receiving. Experiments include radio frequency measurements and the testing of various types of receiving circuits. (Creese.)

E. E. 109 y. *Illumination* (7)—Three lectures first semester; three lectures and one laboratory second semester. Prerequisite, E. E. 102 y, and to take concurrently E. E. 104 y.

Series systems of distribution, methods of street lighting, calculation of voltage drop, regulation, weights of wire and methods of feeding parallel systems, principles and units used in illumination problems, lamps and reflectors, candle-power measurements of lamps, measurement of illumination intensities and calculations for illumination of laboratories and classrooms. (Creese.)

General Engineering Subjects

ENGR. 1 y. *Prime Movers* (4)—Two lectures. Prerequisites, Math. 7 y and Phys. 2 y. Required of juniors in Civil Engineering.

Salient features of the operation of steam, gas, hydraulic and electric prime movers and pumps. Comparison of types of each, methods of assembling or setting up in place for operation. Service tests. (Baily.)

ENGR. 2 y. *Prime Movers* (4)—Two lectures. Prerequisites, Math. 7 y and Phys. 2 y. Required of juniors in Electrical and Mechanical Engineering.

This course is similar in content to Engr. 1 y, but with greater emphasis placed on details preparatory to work in Thermodynamic problems in the senior year. (Nesbit.)

ENGR. 3 y. *Engineering Geology* (2)—One laboratory. Lectures and field trips. Required of all juniors in Engineering.

Study of common rocks and minerals, geologic processes and conditions affecting problems of water supply, bridge, railroad, and highway construction, dams and reservoirs, tunnels, canals, river and harbor improvements, irrigation works, and rock excavation. (Resser.)

ENGR. 4 s. *Public Utilities* (1)—One lecture. Prerequisite, Econ. 3 f or s. Required of all seniors in Engineering.

The development of public utilities, franchises, functions, methods of financing and control of public utilities. Service standards and their attainment in electric, gas, water, railway, and other utilities. The principles that have been adopted by the courts and public service commissions for the evaluation of public utilities for ratemaking and other purposes. (Daniels.)

ENGR. 101 f. *Engineering Jurisprudence* (1)—One lecture. Required of all seniors in Engineering.

A study of the fundamental principles of law relating to business and to engineering; including contracts, agency, sales, 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 y. *Engineering Mechanics* (7)—Three lectures and one laboratory first semester. Two lectures and one laboratory second semester. Prerequisites, Math. 7 y and Phys. 2 y. Required of juniors in Electrical and Mechanical Engineering.

Applied Mechanics—The analytical study of statics dealing with the composition and resolution of forces, moments and couples, machines and the laws of friction, dynamics, work, energy, and the strength of materials.

Graphic Statics—The graphic solution of problems in mechanics, center of gravity, moments of inertia and determination of stresses in frame structures.

Elements of Hydraulics—Flow of water in pipes, through orifices and in open channels. Determination of the co-efficient of discharge, velocity, and contraction in pipes and orifices. (Bailey.)

MECH. 2 y. *Engineering Mechanics* (9)—Four lectures and one laboratory first semester. Three lectures and one laboratory second semester. Prerequisites, Math. 7 y and Phys. 2 y. Required of juniors in Civil Engineering.

This course is similar in content to Mech. 1 y, but with greater emphasis placed on strength of material and hydraulics. (Skelton.)

MECH. 3 s. *Materials of Engineering* (2)—One lecture; one laboratory. To be taken concurrently with Engineering Mechanics. Required of all juniors in 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. (Johnson, Pyle, and Hoshall.)

MECH. 101 f. *Thermodynamics* (3) — Three lectures. Prerequisites, Phys. 2 y, Engr. 1 y. Required of seniors in Electrical Engineering (Nesbit.)

MECH. 102 y. *Thermodynamics* (6) — Three lectures. Prerequisites, Physics, 2 y, Engr. 1 y. Required of seniors in Mechanical Engineering.

Thermodynamics as applied to properties of gases, cycles of heat, engines using gases. Properties of vapors. Entropy. The internal combustion engine. The steam turbine. Flow of fluids, and the application of thermodynamics to compressed air and refrigerating machinery. (Nesbit.)

Mechanical Engineering

M. E. 101 f. *Elements of Machine Design* (1)—One laboratory. Prerequisites, Math. 7 y and Phys. 2 y. Required of juniors in Electrical Engineering.

Empirical design of machine parts. (Bailey.)

M. E. 102 y. *Kinematics and Machine Design* (8)—Four lectures and two laboratories first semester. One lecture and one laboratory second semester. Prerequisites, Math. 7 y and Phys. 2 y. Required of juniors in Mechanical Engineering.

The application of the principles involved in determining the properties and forms of machine parts. The design of bolts, screws, shafting, and

gears. The theory and practice of the kinematics of machinery, as applied to ropes, belts, chains, gears and gear teeth, wheels in trains, epicyclic trains, cams, linkwood, parallel motions. Miscellaneous mechanisms and aggregate combinations. (Hoshall.)

M. E. 103 y. *Design of Prime Movers* (6)—Two lectures; one laboratory. Prerequisites, M. E. 102 y and Engr. 1 y. Required of seniors in Mechanical Engineering.

Analysis of the stresses in gas and steam engines. Proportioning the essential parts and estimating the cost of each. The steam boiler; its design and cost. (Nesbit.)

M. E. 104 s. *Design of Power Plants* (3)—Two lectures; one laboratory. Prerequisites, Engr. 1 y, Mech. 101 f, M. E. 102 y. Required of seniors in Mechanical Engineering.

The design of a complete power plant, including the layout of building and installation of equipment. The selection of types and capacities of the various units required. (Nesbit.)

M. E. 105 f. *Design of Pumping Machinery* (2)—One lecture; one laboratory. Prerequisites, M. E. 102 y and Mech. 1 y and 2 y. Required of seniors in Mechanical Engineering.

Design of double-acting steam pumps and centrifugal pumps. Vacuum, condenser, and water works pumps. (Nesbit.)

M. E. 106 s. *Engineering Finance* (2)—Two lectures. Required of seniors in Mechanical Engineering.

Financial problems of the engineer. Cost segregation and cost analysis. Basis of price and rates. Fixed charges and operating costs. Replacement cost. Depreciation. Maintenance. Taxes and insurance. Unit cost determination. Determination of size of system for best financial efficiency. (Nesbit.)

M. E. 107 y. *Mechanical Laboratory* (2)—One laboratory. Prerequisites, Engr. 1 y; Mech. 1 y, 3 s. Required of seniors in Mechanical Engineering.

Calibration of instruments, gauges, indicator springs, planimeters, steam, gas, and water meters.

Indicated and brake horsepower of steam and internal combustion engines, setting of plain valves, Corliss valves. Tests for economy and capacity of boilers, engines, turbines. Pumps and other prime movers. Feed water heaters, condensers; B. T. U. analysis of solid, gaseous, and liquid fuels and other complete power plant tests. (Nesbit.)

M. E. 108 s. *Heating and Ventilation* (2)—One lecture and one laboratory. Prerequisites, Engr. 1 y and Mech. 1 y, 3 s. Required of juniors in Mechanical Engineering. (Nesbit.)

The principles and methods of construction in use in various systems of heating and ventilating; the design, erection, and operation of heating plants.

Shop

SHOP 1 y. *Shop and Forge Practice* (2)—One laboratory. Required of all freshmen in Engineering.

The use and care of wood-working tools, exercises in sawing, planing, turning, and laying out work from blueprints. Patternmaking with moulding and casting demonstrations to give understanding of general principles. Forging of iron and steel, welding and making of carbon steel tools. Demonstrations in oxy-acetylene welding of steel, cast iron, brass, and aluminum, also brazing of malleable iron and steel.

SHOP 2 f. *Machine Shop Practice* (1)—One laboratory period. Prerequisite, Shop 1 y. Required of all sophomores in Engineering.

Exercises in bench work, turning, planing, drilling, and pipe threading.

SHOP 3 s. *Machine Shop Practice* (2)—One lecture; one laboratory. Prerequisite, Shop 2 f. Required of all sophomores in Mechanical and Electrical Engineering.

Advanced practice with standard machine shop machines. Exercises in thread cutting, surface grinding, fluting, and cutting of spur and twisted gears.

Calculations of machine shop problems involving lathe and milling machines. Problems relating to methods of manufacture of machine parts by use of jigs and time-saving fixtures.

SHOP 4 f. *Foundry Practice* (1)—One laboratory. Prerequisite, Shop 1 y. Required of juniors in Mechanical Engineering.

Casting in brass, aluminum, and cast iron. Core making. The operation of furnace and cupola. Lectures on metals, fuels, and a foundry equipment.

Surveying

SURV. 1 f. *Surveying* (1)—Lecture and laboratory work. Prerequisite, Math. 7 y. Required of all sophomores in Engineering.

Theory of and practice in the use of the Tape, Compass, Transit, and Level. General surveying methods, map reading, traversing, theory of stadia.

SURV. 2 s. *Plane Surveying* (2)—Lecture and Laboratory work. Prerequisite, Surv. 1 f. Required of sophomores in Civil Engineering.

Land surveying and map making for topography and planning. Practice in stadia. Computations of coordinates. Plotting of control and detail. Establishing of line and grade for construction purposes. Laying out simple curves. Estimation of earthwork.

SURV. 101 f. *Advanced Surveying* (3)—One lecture; two laboratories. Prerequisite, Surv. 1 f and 2 s. Required of juniors in Civil Engineering.

Adjustment of Instruments. Determination of Azimuth by Stellar and Solar observations. Triangulation, Precise leveling, Trigonometric Leveling and Geodetic Surveying, together with the computations and adjustments necessary. (Pyle.)

ENGLISH LANGUAGE AND LITERATURE

PROFESSOR HOUSE; ASSOCIATE PROFESSORS HARMAN, HALE; ASSISTANT PROFESSOR LEMON; MR. FITZHUGH, MISS KUHNLE.

ENG. 1 y. *Composition and Rhetoric* (6)—Three lectures. Freshman year. Prerequisite, three units of high school English. Required of all four-year students.

Parts, principles, and conventions of effective thought communication. Reading, study, and analysis of standard contemporary prose specimens. Original exercises and themes.

ENG. 2 y. *Elements of Literature* (6)—Three lectures. Prerequisite, three units of high school English.

Examination of the principles of literary form. Study and interpretation of selected classics.

ENG. 3 f. *Advanced Composition and Rhetoric* (2)—Two lectures. Prerequisite, Eng. 1 y. Eng. 3 f and 4 s are required courses for all students whose major is English.

Study and analysis of the best modern essays as a basis of class papers. Also original themes on assigned topics.

ENG. 4 s. *Advanced Composition and Rhetoric* (2)—Two lectures. Continuation of Eng. 3 f. Prerequisite, Eng. 3 f.

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.

Continuation of Eng. 5 f. Prerequisite, Eng. 5 f.

ENG. 7 f. *History of English Literature* (3)—Three lectures. Prerequisite, Eng. 1 y. Required of all students whose major is English.

A general survey, with extensive reading and class papers.

ENG. 8 s. *History of English Literature* (3)—Three lectures.

Continuation of Eng. 7 f. Prerequisite, Eng. 7 f.

ENG. 9 f. *American Literature* (3)—Three lectures. Prerequisite, Eng. 1 y.

Lectures on the development of American literary types. Class papers. (Not given in 1930-1931.)

ENG. 10 s. *American Literature* (3)—Three lectures.

Continuation of Eng. 9 f. Prerequisite, Eng. 9 f. (Not given in 1930-1931.)

ENG. 11 f. *Modern Poets* (3)—Three lectures. Prerequisite, Eng. 1 y.

English and American poets of the latter part of the Nineteenth and of the Twentieth Century.

ENG. 12 s. *Modern Poets* (3)—Three lectures.

Continuation of Eng. 11 f. Prerequisite, Eng. 1 y.

ENG. 13 f. *The Drama* (3)—Three lectures. Prerequisite, Eng. 1 y.

A study of representative plays in the development of European and American drama. Reports and term themes.

ENG. 14 s. *The Drama* (3)—Three lectures. Continuation of Eng. 13 f. Prerequisite, Eng. 13 f.

ENG. 15 f. *Shakespeare* (3)—Three lectures. Prerequisite, Eng. 1 y.

An intensive study of selected plays.

ENG. 16 s. *Shakespeare* (3)—Three lectures.
Continuation of Eng. 15 f. Prerequisite, Eng. 1 y.

ENG. 17 f. *Business English* (2)—Two lectures. Prerequisite, Eng. 1 y.

This course develops the best methods of effective expression, both oral and written, used in business relations.

ENG. 18 s. *Business English* (2)—Two lectures.

Continuation of Eng. 17 f. Prerequisite, Eng. 17 f.

For Advanced Undergraduates and Graduates

ENG. 105 s. *Poetry of the Romantic Age* (3)—Three lectures. Prerequisite, Eng. 7 f and 8 s or Comp. Lit. 105, first semester. A study of the Romantic movement in England as illustrated in the works of Shelley, Keats, Byron, Wordsworth, Coleridge. (Hale.)

(This course is identical with the second semester of Comp. Lit. 105 y.)

ENG. 115 f. *Literature of the Eighteenth Century* (2)—Two lectures. Prerequisite, Eng. 7 and 8. Readings in the period dominated by Defoe, Swift, Addison, Steele, and Pope. (Fitzhugh.)

ENG. 116 s. *Literature of the Eighteenth Century* (2)—Two lectures. Prerequisite, Eng. 7 and 8. A continuation of Eng. 115 f. Dr. Johnson and his Circle; the Rise of Romanticism; the Letter Writers. (Fitzhugh.)

ENG. 117 y. *Medieval Romance in England* (4)—Two lectures. Prerequisite, Eng. 7 f. Lectures and readings in the cyclical and non-cyclical romances in Medieval England and their sources, including translations from the Old French. (Hale.)

ENG. 118 y. *The Major Poets of the Fourteenth Century* (4)—Two lectures. Prerequisite, Eng. 7 f. Lectures and assigned readings in the works of Langland, Gower, Chaucer, and other poets of the fourteenth century. (Hale.) (Not given 1930-31.)

ENG. 119 y. *Anglo-Saxon* (6)—Three lectures. Some knowledge of Latin and German is desirable, as a preparation for this course. Required of all students whose major is English.

A study of Anglo-Saxon (Old English) grammar and literature. Lectures on the principles of comparative philology and phonetics. (House.)

ENG. 122 f. *The Novel* (2)—Two lectures.

Lectures on the principles of narrative structure and style. Class reviews of selected novels, chiefly from English and American sources. (House.)

ENG. 123 s. *The Novel* (2)—Two lectures.
Continuation of Eng. 122 f. (House.)

ENG. 124 f. *English and American Essays* (2)—Two lectures.

A study of the philosophical, critical, and familiar essays of England and America Bacon, Lamb, Macaulay, Emerson, Chesterton, and others. (House.)

ENG. 126 f. *Victorian Poets* (2)—Two lectures.

Studies in the poetry of Tennyson, Browning, Arnold, Swinburne, and others. (House.)

ENG. 127 s. *Victorian Poets* (2)—Two lectures.
Continuation of Eng. 126 f. (House.)

ENG. 129 f or s. *College Grammar* (3)—Three lectures. Required of all students whose major is English. The course is completed each semester.

Studies in the descriptive grammar of modern English, with some account of the history of forms. (Harman.)

ENG. 130 f. *The Old Testament as Literature* (2)—Two lectures. For seniors and graduate students.

A study of the sources, development, and literary types. (Hale.)

For Graduates

ENG. 201. *Seminar*—Credit proportioned to the amount of work and ends accomplished. (Staff.)

Original research and the preparation of dissertations looking towards advanced degrees.

ENG. 202 y. *Beowulf* (4)—Two lectures. Prerequisite, Eng. 119 y.

Critical study of grammar and versification, with some account of the legendary lore. (Harman.) Alternate with Eng. 203 f and 204 s.

ENG. 203 f. *Middle English* (2)—Two lectures. Prerequisite, Eng. 119 y.

A study of excerpts of the Middle English period, with reference to etymology and syntax. (House or Harman.)

ENG. 204 s. *Gothic* (2)—Two lectures. Prerequisite, Eng. 119 y.

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. 203 f and 204 s alternate with Eng. 202 y.

ENG. 205 f. *Browning's Dramas* (2)—Two lectures. *Luria, The Return of the Druses, Pippa Passes, Colombe's Birthday, A Blot in the 'Scutcheon.* (House.)

ENG. 206 s. *Victorian Prose* (2)—Two lectures. Works of Carlyle, Arnold, Mill, Ruskin, and others. (House.)

ENTOMOLOGY

PROFESSOR CORY; ASSISTANT PROFESSOR KNIGHT;
COLLABORATING PROFESSOR SNODGRASS.

ENT. 1 f or s. *Introductory Entomology* (3)—Two lectures; one laboratory. Prerequisite, Zool. 1 f or s.

The relations of insects to the daily life and activities of the student. General principles of structural and systematic entomology. Field work and the preparation of a collection of insects.

ENT. 2 y. *Intermediate Entomology* (6)—A two-semester course. Two laboratories. Credit not given for second semester alone.

Studies of the anatomy, physiology, and taxonomy of insects. A fundamental course given in preparation for most of the advanced courses. Lectures given at opportune times during laboratory periods. Prerequisite, Ent. 1 f or s.

ENT. 4 f or s. *Special Problems*—Prerequisite—consult department.

The intensive investigation of some entomological subject. A report of the results is submitted as part of the requirement for graduation.

ENT. 5 s. *Insecticides and Their Application* (2)—One lecture; one laboratory. Prerequisite, Ent. 1 f or s.

The principles of insecticides, their chemistry, preparation, and application; construction, care, and use of spray and dusting machinery; fumigation; methods and apparatus in mechanical control. (Not offered in 1930-31.)

ENT. 7 y. *Entomological Technique and Scientific Delineation* (4). 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 1930-31.)

Courses for Advanced Undergraduates and Graduates

ENT. 101 y. *Economic Entomology* (6)—Three 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. (Cory.) (Not offered in 1930-31.)

ENT. 103 y. *Seminar* (1)—Time to be arranged.

Presentation of original work, book reviews, and abstracts of the more important literature. (Cory, Knight.)

ENT. 104 y. *Insect Pests of Special Groups* (8). 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.

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. (Not offered in 1930-31.)

ENT. 105 f. *Medical Entomology* (3)—Three lectures. Prerequisite Entomology 1 f or s, or 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.)

For Graduate Students

ENT. 201. *Advanced Entomology* (2).

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* (6-10).

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. *Insect Morphology* (2-4).

Insect Anatomy with special relation to function. Given particularly in preparation for work in physiology and other advanced studies. Two lectures, and laboratory work by special arrangement, to suit individual needs. (Snodgrass.)

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.

FARM MANAGEMENT

PROFESSOR W. T. L. TALIAFERRO.

F. M. 1 s. *Farm Accounting* (3)—Two lectures; one laboratory. Open to juniors and seniors.

A concise practical course in the keeping of farm accounts and in determining the cost of farm production.

F. M. 2 f. *Farm Management* (4)—Four lectures.

The business of farming from the standpoint of the individual farmer. This course aims to connect the principles and practice which the student has acquired in the several technical courses and to apply them to the development of a successful farm business.

See also Agricultural Economics, page —.

FARM MECHANICS

PROFESSOR CARPENTER.

F. MECH. 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.

F. MECH. 102 s. *Gas Engines, Tractors, and Automobiles* (4)—Three lectures; one laboratory.

A study of the design and operation of the various types of internal combustion engines used in farm practice.

F. MECH. 103 f. *Advanced Gas Engines* (2)—One lecture; one laboratory. Prerequisite, F. Mech. 102 s.

An advanced study of the four-cylinder gasoline engine.

F. MECH. 104 f. *Farm Shop Work* (1)—One laboratory.

A study of practical farm shop exercises offered primarily for prospective teachers of vocational agriculture.

F. MECH. 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.

F. MECH. 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.

GENETICS AND STATISTICS

PROFESSOR KEMP.

GEN. 101 f. *Genetics* (3)—Two lectures; one laboratory.

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 crops.

GEN. 102 s. *Advanced Genetics* (3)—Two lectures; one laboratory. Prerequisite, Gen. 101 f. Alternate year course.

A consideration of chromosome irregularities and other mutations, interspecies crosses, genetic equilibrium, and the results of artificial attempts to modify germplasm.

GEN. 111 f. *Statistics* (2)—Two lectures.

A study of the collection, analysis, interpretation, and presentation of statistics. The course includes a study of expressions of type, variability, and correlation, together with the making of diagrams, graphs, charts, and maps.

GEN. 112 s. *Advanced Statistics* (2)—Two lectures. Prerequisite, Gen. 111 f. or its equivalent.

A study of the theory of error, measures of relationship, multiple and partial correlation, predictive formulas, curve fitting.

GEN. 201 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.

GREEK

PROFESSOR SPENCE.

GREEK 1 y. *Elementary Greek* (8)—Four lectures.

Drill and practice in the fundamentals of Greek grammar and the acquisition of a vocabulary, with translation of simple prose.

GREEK 2 y. *Greek Grammar, Composition, and Translation of Selected Prose Work* (8)—Four lectures. Prerequisite, Greek 1 y or two entrance units in Greek.

HISTORY AND POLITICAL SCIENCE

PROFESSORS CROTHERS, SPENCE; ASSISTANT PROFESSOR JAEGER; MR. SCHULZ, MR. STONER.

A. History

H. 1 y. *Modern European History* (6)—Three lectures and assignments.

The object of the course is to acquaint students with the chief events in European History during the modern period. The lectures are so arranged as to present a comparative and contrastive view of the most important events during the period covered.

H. 2 y. *American History* (6)—Three lectures and assignments. 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 Greater Britain* (6)—Three lectures and assignments. Open to freshmen.

A survey course of English History.

H. 4 s. *History of Maryland* (2)—Two lectures.

A study of the Colony of Maryland and its development into statehood.

H. 5 f. *Ancient Civilization* (3)—Three lectures. Required of students taking a major or minor in Classical Languages.

Treatment of ancient times, including Geography, Mythology, and Philosophy.

For Advanced Undergraduates and Graduates

H. 101 f. *American Colonial History* (3)—Three lectures and assignments. 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. (Crothers.)

H. 102 s. *Recent American History* (3)—Three lectures. Prerequisite, H. 2 y.

The history of national development from the close of the reconstruction period to the present time. (Crothers.)

H. 103 y. *American History 1790-1865* (4)—Two lectures. Prerequisite, H. 2 y.

The history of national development to the reconstruction period. (Crothers.)

H. 104 y. *World History Since 1914* (6)—Three lectures.

A study of the principal nations of the world since the outbreak of the World War. (Not given 1930-31.) (Jaeger.)

H. 105 y. *Diplomatic History of Europe in the Nineteenth and Twentieth Centuries* (6)—Three lectures.

A study of the European nations, stressing their political problems and their political activities. (Jaeger.)

H. 106 y. *American Diplomacy* (4)—Two lectures.

A study of American foreign policy. (Crothers.)

H. 107 y. *History of the American Frontier* (4)—Two lectures.

The development of the West. (Not given 1930-31.) (Crothers.)

B. Political Science

Soc. Sci. 1 y. *Elementary Social Sciences* (6). (For description of course, see Economics and Sociology, Page 178.)

Pol. Sci. 2 f. *Government of the United States* (3)—Three lectures. Open to sophomores.

A study of the Government of the United States. Evolution of the Federal Constitution; function of the Federal Government.

Pol. Sci. 3 s. *Political Parties in the United States* (3)—Prerequisite, Pol. Sci. 2 f.

The development and growth of American political parties. Party organization and machinery.

For Advanced Undergraduates and Graduates

Pol. Sci. 101 f. *International Law* (3). Three lectures and recitations. Case method.

A study of the sources, nature, and development of international law as found in the decisions of courts and tribunals, both municipal and international. (Jaeger.)

Pol. Sci. 102 s. *International Relations* (3)—Three lectures and conferences.

An examination of the economic and political reasons that motivate nations in their relations with one another. This course is designed to give the student a clear insight into the *actual causes*, whether economic or otherwise, that induce States to adopt one policy or another in the international sphere of their activity. (Jaeger.)

HOME ECONOMICS

Professors Mount, McFarland; Associate Professor Welsh; Assistant Professor Murphy; Mrs. Westney.

Textiles and Clothing

H. E. 11 f. *Textile Fabrics* (3)—Three recitations.

History of textile fibers; standardization and identification of textile fibers and materials. (Westney.)

H. E. 12 s. *Clothing Construction* (3)—One recitation; two laboratories.

Construction and care of clothing; clothing budget. (Westney.)

For Advanced Undergraduates

H. E. 111 f. *Advanced Clothing* (4)—One recitation, three laboratories. Prerequisites, H. E. 11 f; H. E. 12 f.

The modeling and draping of dresses, emphasizing the relationship to the individual of line, form, color, and texture. (Westney.)

H. E. 112 s. *Special Clothing Problems* (3)—One recitation; two laboratories. Prerequisite, H. E. 111 f.

Children's clothing; evening wraps, ensembles. (Westney.)

H. E. 113 f. *Problems and Practice in Textiles or Clothing* (5)—Prerequisite, H. E. 111 f.

Opportunity for commercial experience in shops, laboratories, or research. (McFarland.)

Foods and Nuitrition

H. E. 31 y. *Elementary Foods* (6)—One recitation; two laboratories. Prerequisite, General Chemistry and Qualitative Analysis (Chem. 1 y).

Principles of cookery; composition of foods; planning and serving of meals. (Welsh.)

For Advanced Undergraduates

H. E. 131 f. *Nutrition* (3)—Three recitations. Prerequisites, H. E. 31 y and Elements of Organic Chemistry (Chem. 12 f).

Nutritive value, digestion and assimilation of foods. (Welsh.)

H. E. 132 s. *Nutrition* (3)—Two recitations; one laboratory. Prerequisite, H. E. 131 f.

Selection of food to promote health; pathological diets as treated in the home; children's diets. (Welsh.)

H. E. 133 f. *Demonstrations* (2)—Two laboratories.

Practice in demonstrations. (Welsh.)

H. E. 134 s. *Advanced Foods* (3)—One recitation; two laboratories. Prerequisite, H. E. 31 y.

Advanced cookery and catering. (Welsh.)

H. E. 135 f. *Problems and Practice in Foods* (5).

Commercial experience in foods or food research.

H. E. 136 s. *Child Nutrition* (2).

Lectures, discussions and field trips relating to the principles of Child Nutrition.

Courses for Graduates

H. E. 201 s. *Seminar in Nutrition* (3).

Oral and written reports on assigned readings in the current literature of Nutrition. Preparation and presentation of reports on special topics.

H. E. 202 f or s. *Special Problems in Foods.* Credits to be determined by amount and quality of work done.

With the approval of the head of the department, students may pursue an original investigation in some phase of foods. The results may form the basis of a thesis for an advanced degree.

Art

H. E. 21 f. *Principles of Design* (3)—One recitation; two laboratories.

Space division and space relation; color theory and harmony; original designs in which lines, notan, and color are used to produce fine harmony. (McFarland.)

H. E. 22 s. *Still Life* (1)—One laboratory. Prerequisite, H. E. 21 s.

Work in charcoal and color. Offered alternate years. (McFarland.)

H. E. 23 s. *Figure Sketching* (1)—One laboratory. Alternates with *Still Life* (H. E. 22 s). (McFarland.)

H. E. 24 s. *Costume Design* (3)—One recitation; two laboratories. Prerequisite, H. E. 21 s.

Appropriate dress; application of color, harmony, and proportion of parts to costumes. (McFarland.)

For Advanced Undergraduates

H. E. 121 s. *Interior Decoration* (3)—Two recitations; one laboratory. Prerequisite, H. E. 21 s.

Style of architecture; application of colors in home decorations; furnishings from a sanitary, economical, and artistic point of view. (Murphy.)

H. E. 122 s. *Applied Art* (1)—One laboratory.

Application of the principles of design and color to practical problems. (McFarland.)

H. E. 123 f. *Advanced Costume Design* (3)—Three laboratories. Prerequisite, H. E. 24 s.

Figure sketching; sketching and modeling of costumes for various types of figures. (McFarland.)

Home and Institutional Management

H. E. 141 f. *Management of the Home* (5).

Experience in operating and managing a household composed of a faculty member and a small group of students for approximately one-third of a semester.

H. E. 142 f. *Buying for the Home* (2)—One recitation. One laboratory period.

Purchasing commodities for the home.

H. E. 143 y. *Institutional Management* (6)—Three recitations.

The organization and management of institutional dining halls, dormitories, and laundries; and of commercial cafeterias, tea-rooms, and restaurants. (Mount.)

H. E. 144 f. *Practice in Institutional Management* (5)—Prerequisite, H. E. 143 y.

Practice work in the University Dining Hall, in a tea-room, or in a cafeteria. (Mount.)

H. E. 145 s. *Advanced Institutional Management* (3)—Prerequisite, H. E. 144 f. One recitation weekly and individual conferences with the instructors.

Special problems in Institutional Management. (Mount.)

Home Economics Extension

H. E. 151 f. *Field Practice in Home Economics Extension* (5)—Given under the direction of Miss Venia Kellar, State Home Demonstration Agent.

Home Economics Seminar

H. E. 161 s. *Seminar* (3)—Three recitations.

Book reviews and abstracts from scientific papers and bulletins relating to Home Economics, together with criticisms and discussion of the work presented. (Staff.)

HOME ECONOMICS EDUCATION

PROFESSOR MCNAUGHTON; MISS BUCKEY.

H. E. ED. 100 s. *Technic of Teaching* (3)—Three lectures; one laboratory. Required of juniors in Home Economics Education. Prerequisite Ed. 101 f.

The nature of educational objectives; steps of the lesson plan; observations and critiques; survey of teaching methods; type lessons; lesson planning; class management. (McNaughton.)

H. E. Ed. 101 s. *Child Psychology* (3)—Three lectures. Open to juniors.

Study of the nervous system; the glandular system; development of sensations; habit formation; emotional controls. (McNaughton.)

H. E. Ed. 102 f. *Child Study* (5).

Child psychology with observation and work in the Washington Child Research Center; books, games, and music for children; physical care; study of physical and mental growth. (McNaughton.)

H. E. Ed. 103 f. *Teaching Secondary Vocational Home Economics: Methods and Practice* (5)—Prerequisite, H. E. Ed. 100 s.

Objectives of vocational home economics; the Smith-Hughes law and its administration; a survey of the needs of the high school girl; adaptation of the state course of study to the needs of the community; methods of instruction; use of the home project; use of illustrative material; improvement of home economics library; study of equipment; outline units of instruction; lesson plans; observation; participation teaching, conferences, and critiques. (McNaughton and Buckey.)

H. E. Ed. 104 s. *Education of Women* (3). Three lectures.

History of the family; the effect of civilization upon the organization of the home and the status of its members; educational opportunities for women; training for citizenship, professions, and the home. (McNaughton.)

HORTICULTURE

Professors Auchter, Schrader, Thurston; Lecturer Boswell; Assistant Professor Wentworth; Mr. Cordner.

A. Pomology

Hort. 1 f. *Elementary Pomology* (3)—Two lectures; one laboratory.

A general course in pomology. The proper location and site for an orchard; varieties, planting plans, inter-crops, spraying, cultural methods, fertilizing methods, thinning, picking, packing, and marketing are given consideration. These subjects are discussed for apples, peaches, pears, plums, cherries, and quinces. The principles of plant propagation as applied to pomology are also discussed.

Hort. 2 f. *Systematic Pomology* (3)— Two lectures; one laboratory. Prerequisite, Hort. 1 f.

The history, botany, and classification of fruits and their adaptation to Maryland conditions. Exercises are given in describing and identifying the leading commercial varieties of fruits. Students are required to help set up the fruit show each year. Not offered 1931-1932. Given in alternate years.

Hort. 3 f. *Advanced Practical Pomology* (1)—Senior year. Prerequisites, Hort. 1 f and 101 f.

A trip occupying one week's time will be made through the principal fruit regions of eastern West Virginia, Maryland, and Pennsylvania. A visit to the fruit markets of several large cities will be made. The cost of this trip should not exceed thirty dollars to each student. Each student will be required to hand in a detailed report covering the trip. The time for taking this trip will be arranged yearly with each class.

Hort. 4 s. *Small Fruit Culture* (2)—One lecture; one laboratory. Not offered in 1931-1932. Given in alternate years.

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, and loganberry.

Hort. 5 f. *Fruit and Vegetable Judging* (2)—Two laboratories. Prerequisites, Hort. 1 f and 11 s.

A course designed to train students for fruit-judging teams and practical judging. Students are required to know at least one hundred varieties of fruit, and are given practice in judging single plates, largest and best collections, boxes, barrels, and commercial exhibits of fruits and vegetables. Students are required to help set up the college horticultural show each year.

Hort. 6 f. *Advanced Fruit Judging* (1)—One laboratory. Prerequisite, Hort. 5 f.

B. Vegetable Crops

Hort. 11 s. *Principles of Vegetable Culture* (3)—Two lectures; one laboratory.

A study of fundamental principles underlying all garden practices. Each student is given a small garden to plant, cultivate, spray, fertilize, harvest, etc.

Hort. 12 f. *Truck Crop Production* (3)—Three lectures. Prerequisite, Hort. 11 s.

A study of methods used in commercial vegetable production. Each individual crop is discussed in detail. Trips are made to large commercial gardens, various markets, and other places of interest.

Hort. 13 s. *Vegetable Forcing* (3)—Two lectures; one laboratory. Prerequisite, Hort. 11 s. Not offered in 1931-1932. Given in alternate years.

All vegetables used for forcing are considered. Laboratory work in sterilization and preparation of soils, cultivation, regulation of temperature and humidity, watering, training, pruning, pollination, harvesting, and packing.

C. Floriculture

Hort. 21 s. *General Floriculture* (2)—One lecture; one laboratory.

The management of greenhouse; the production and marketing of florists' crops; retail methods; plants for house and garden. Not offered in 1931-1932. Given in alternate years.

HORT. 22 y. *Greenhouse Management* (6)—Two lectures; one laboratory.

A consideration of the methods employed in the management of greenhouses, including the operations of potting, watering, ventilating, fumigation, and methods of propagation. Not given in 1931-1932. Given in alternate years.

HORT. 23 y. *Floricultural Practice* (4)—Two laboratories.

Practical experience in the various greenhouse operations of the fall, winter, and spring seasons.

HORT. 24 s. *Greenhouse Construction* (2)—One lecture; one laboratory.

The various types of houses; their location, arrangement, construction, and cost; principles and methods of heating; preparation of plans and specifications for commercial and private ranges. Not offered in 1931-1932. Given in alternate years.

HORT. 25 y. *Commercial Floriculture* (6)—Two lectures; one laboratory. Prerequisite, Hort. 22 y.

Cultural methods of florists' bench crops and potted plants, the marketing of the cut flowers, the retail store, a study of floral decoration. Not offered in 1930-1931. Given in alternate years.

HORT. 26 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. Not offered in 1931-1932. Given in alternate years.

HORT. 27 s. *Floricultural Trip* (1)—Prerequisite, Hort. 22 y.

A trip occupying one week's time will be made through the principal floricultural sections, including Philadelphia and New York, visiting greenhouse establishments, wholesale markets, retail stores, nurseries, etc. The cost of this trip should not exceed thirty dollars to each student. Each student will be required to hand in a detailed report covering the trip. The time for taking this trip will be arranged yearly with each class.

D. Landscape Gardening

HORT. 31 s. *General 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. Not offered in 1930-1931. Given in alternate years.

HORT. 32 f. *Elements of Landscape Design* (3)—One lecture; two laboratories. Prerequisite, Hort. 31 s.

A consideration of the principles of landscape design; surveys, mapping, and field work. Not offered in 1931-1932. Given in alternate years.

HORT. 33 s. *Landscape Design* (3)—Three laboratories. Prerequisite, Hort. 32 f.

The design of private grounds and gardens and of architectural details used in landscape; planting plans; analytical study of plans of practicing

landscape architects; field observation of landscape developments. Not offered in 1931-1932. Given in alternate years.

HORT. 34 f. *Landscape Design* (3)—Three laboratories. Prerequisite, Hort. 33 s.

Continuation of course as outlined above. Not offered in 1930-1931. Given in alternate years.

HORT. 35 f. *History of Landscape Gardening* (1)—One lecture. Prerequisite, Hort. 31 s.

Evolution and development of landscape gardening; the different styles and a particular consideration of Italian, English, and American gardens. Not offered in 1931-1932. Given in alternate years.

HORT. 36 f. *Landscape Construction and Maintenance* (1)—One lecture or laboratory.

Methods of construction and planting; estimating; park and estate maintenance. Not offered in 1930-1931. Given in alternate years.

HORT. 37 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. Not offered in 1930-1931. Given in alternate years.

E. General Horticulture Courses

HORT. 41 s. *Horticultural Breeding Practices* (1)—One laboratory. Senior year. Prerequisites, Genetics (Gen. 101), General Plant Physiology (Plt. Phy. 1 f.)

Practice in plant breeding, including pollination, hybridization, selection, note-taking, and the general application of the theories of heredity and selection to practice are taken up in this course.

HORT. 42 y. *Horticultural Research and Thesis* (4-6).

Advanced students in any of the four divisions of horticulture may select some special problem for individual 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, students should in most cases start the work during the junior year. The results of the research work are to be presented in the form of a thesis and filed in the horticultural library.

HORT. 43 y. *Horticultural Seminar* (2).

In this course papers are read 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.

For Advanced Undergraduates and Graduates

HORT. 101 f. *Commercial Fruit Growing* (3)—Two lectures; one laboratory. Prerequisite, Hort. 1 f.

The proper management of commercial orchards in Maryland. Advanced work is taken up on the subject of orchard culture, orchard fertilization,

picking, packing, marketing, and storing of fruits; orchard by-products, orchard heating, and orchard economics. Not offered in 1930-1931. Given in alternate years.

HORT. 102 f. *Economic Fruits of the World* (2)—Two lectures. Prerequisites, Hort. 1 f and Hort. 101 f.

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. Not offered in 1930-1931. Given in alternate years.

HORT. 103 f. *Tuber and Root Crops* (2)—One lecture; one laboratory. Prerequisites, Hort. 11 s and 12 f. Not offered in 1931-1932. Given in alternate years.

A study of white potatoes and sweet potatoes, considering seed, varieties, propagation, soils, fertilizers, planting, cultivation, spraying, harvesting, storing, and marketing.

HORT. 104 s. *Advanced Truck Crop Production* (1)—Prerequisites, Hort. 11 s, 12 f, and 13 s.

A trip of one week is made to the commercial trucking section of Maryland, Delaware, New Jersey, and Pennsylvania. A study of the markets in several large cities is included in this trip. Students are required to hand in a detailed report of this trip. The cost of such a trip should not exceed thirty dollars per student. The time will be arranged each year with each class.

HORT. 105 f. *Systematic Olericulture* (3)—Two lectures; one laboratory. Prerequisites, Hort. 11 s and 103 f. Not offered in 1930-1931. Given in alternate years.

A study of the classification and nomenclature of vegetables. Descriptions of varieties and adaptation of varieties to different environmental conditions.

HORT. 106 y. *Plant Materials* (5)—One lecture; one or two laboratories. Not offered in 1930-1931. Given in alternate years.

A field and laboratory study of trees, shrubs, and vines used in ornamental planting.

For Graduates

HORT. 201 y. *Experimental Pomology* (6)—Three lectures.

A systematic study of the sources of knowledge and opinion as to practices in pomology; methods and difficulties in experimental work in pomology and results of experiments that have been or are being conducted in all experiment stations in this and other countries.

HORT. 202 y. *Experimental Olericulture* (6)—Three lectures.

A systematic study of the sources of knowledge and opinion as to practices in vegetable growing; methods and difficulties in experimental work in vegetable production and results of experiments that have been or are being conducted in all experiment stations in this and other countries.

HORT. 203 s. *Experimental Floriculture* (2)—Two lectures.

A systematic study of the sources of knowledge and opinions as to practice in floriculture are discussed in this course. The results of all experimental work in floriculture which have been or are being conducted will be thoroughly discussed.

HORT. 204 s. *Methods of Research* (2)—One lecture; one laboratory.

For graduate students only. Special drill will be given in the making of briefs and outlines of research problems, in methods of procedure in conducting investigational work, and in the preparation of bulletins and reports. A study of the origin, development, and growth of horticultural research is taken up. A study of the research problems being conducted by the Department of Horticulture will be made, and students will be required to take notes on some of the experimental work in the field and become familiar with the manner of filing and cataloging all experimental work.

HORT. 205 y. *Advanced Horticultural Research and Thesis* (4, 6, or 8).

Graduate students will be required to select problems for original research in pomology, vegetable gardening, floriculture, or landscape gardening. These problems will be continued until completed, and final results are to be published in the form of a thesis.

HORT. 206 y. *Advanced Horticultural Seminar* (2).

This course will be required of all graduate students. Students will be required to give reports either on special topics assigned them, or on the progress of their work being done in courses. Members of the departmental staff will report special research work from time to time.

Requirements of Graduate Students in Horticulture

Pomology—Graduate students specializing in Pomology who are planning to take an advanced degree will be required to take or offer the equivalent of the following courses: Hort. 1 f, 2 f, 101 f, 102 f, 201 y, 204 s, 205 y, and 206 y; General Biochemistry (Biochem. 102 f); Plant Biochemistry)Plt. Phys. 201 s); Plant Microchemistry (Plt. Phys. 103 f); Plant Biophysics (Plt. Phys. 202 f); Organic Chemistry (Chem. 8 y); Plant Anatomy (Bot. 101 s), and Plant Histology (Bot. 102 s).

Olericulture—Graduate students specializing in vegetable gardening who are planning to take an advanced degree will be required either to take or offer the equivalent of the following courses: Hort. 12 f, 13 s, 103 f, 105 f, 202 y, 204 s, 205 y, and 206 y; General Biochemistry (Biochem. 102 f); Plant Microchemistry (Plt. Phys. 203 s); Plant Biochemistry (Plt. Phys. 201 s); Plant Biophysics (Plt. Phys. 202 f); Organic Chemistry (Chem. 8 y); Plant Anatomy (Bot. 101 s), and Plant Histology (Bot. 102 s).

Floriculture—Graduate students specializing in floriculture who are planning to take an advanced degree will be required to take or offer the equivalent of the following courses: Hort. 22 y, 23 y, 24 s, 25 y, 26 f, 203 s, 204 s, 205 y, and 206 y; General Biochemistry (Biochem. 102 f.); Plant Biophysics (Plt Phys. 202 f); Plant Biochemistry (Plt. Phys. 201 s); Botany 103 f or s, Organic Chemistry (Chem. 8 y), Botany 101 s and 102 s, and Plant Physiology 101 s, and 203 s.

Landscape Gardening—Graduate students specializing in landscape gardening who are planning to take an advanced degree will be required to take or offer the equivalent of the following courses: Hort. 32 f, 33 s, 35 f, 105 f, 204 s, and 206 y; Botany 103 f or s; Drafting 1 y and 2 y; Plane Surveying (Surv. 1 f and 2 s), and Plant Ecology (Plant Phys. 101 s).

Additional Requirements—In addition to the above required courses, all graduate students in horticulture are advised to take physical and colloidal chemistry.

Unless graduate students in Horticulture have had certain courses in entomology, plant pathology, genetics, and biometry, certain of these courses will be required.

Note: For courses in Biochemistry and Biophysics, see Plant Physiology.

LATIN

PROFESSOR SPENCE.

LAT. 1 f. *Elementary Latin* (4)—Four lectures.

This course is offered to cover a substantial and accurate course in Grammar and Syntax, with translation of simple prose. It is substantially the equivalent of one entrance unit in Latin.

LAT. 2 s. *Translation and Prose Composition* (4)—Four lectures. Prerequisite, Lat. 1 f or its equivalent. Substantially the equivalent of a second entrance unit in Latin.

Texts will be selected from the works of Caesar and Sallust.

LAT. 3 f. (4)—Four lectures. Prerequisite, Lat. 2 s or two entrance units in Latin.

Texts will be selected from Virgil, with drill on prosody.

LAT. 4 s. (4)—Four lectures. Prerequisite, Lat. 3 f or three entrance units in Latin.

Selections from Cicero's orations, with parallel reading of the world's masterpieces of oratory.

LIBRARY SCIENCE

MISS GRACE BARNES, MISS GERTRUDE BERGMAN, MR. GEORGE FOGG.

L. S. 1 f or s. *Library Methods* (1)—Freshman year. Required of students registered in the College of Arts and Sciences. Elective for others.

This course is intended to help students use the library with greater facility. Instruction is given by practical work with the various catalogs, indexes, and reference books. This course considers the general classification of the library according to the Dewey system. Representative works of each division are studied in combination with the use of the library

catalogue. Attention is given to periodical literature, particularly that indexed in the Reader's Guide and in other periodical indexes; and to various much-used reference books which the student will find helpful throughout the college course.

MATHEMATICS

PROFESSORS T. H. TALIAFERRO, GWINNER; ASSISTANT PROFESSORS SPANN, DANTZIG; MR. ALRICH, MR. WITTES.

MATH. 1 f. *Algebra* (3)—Three lectures. Required of Pre-medical, Pre-dental, Business Administration, and certain Chemistry students, and alternative for others in the College of Arts and Sciences. Elective for other students. Prerequisite, Algebra to Quadratics.

This course includes the study of quadratics, simultaneous quadratic equations, graphs, progressions, elementary theory of equations, binomial theorem, permutations, combinations, etc.

MATH. 2 s. *Plane Trigonometry* (3)—Three lectures. Required of Pre-medical, Pre-dental, Business Administration, and certain Chemistry students, and alternative for others in the College of Arts and Sciences. Elective for other students. Prerequisites, Math. 1 f and Plane Geometry.

A study of the trigonometric functions and the deduction of formulas with their application to the solution of plane triangles and trigonometric equations.

MATH. 3 f. *Trigonometry; Advanced Algebra* (5)—Five lectures. Required of freshmen in the College of Engineering and in Industrial Chemistry. Elective for other students. Prerequisites, Algebra completed and Solid Geometry.

Advanced Algebra includes a rapid review of algebra required for entrance, elementary theory of equations, binomial theorem, permutations, combinations, and other selected topics.

Trigonometry includes trigonometric functions, the deduction of formulas and their application to the solution of plane triangles, trigonometric equations, spherical triangles, etc.

This course will be repeated during the second semester.

MATH. 4 s. *Analytic Geometry* (5)—Five lectures. Required of students in the College of Engineering and in Industrial Chemistry. Elective for other students. Prerequisite, Math. 3 f.

This course includes a study of the curve and equation, the straight line, the conic sections, empirical equations, transcendental curves, the plane and the straight line in space, and the quadric surfaces.

An opportunity is also afforded to take this course during the summer.

MATH. 5 f. *Plane Analytic Geometry* (3)—Three lectures. Required of students in Chemistry other than Industrial Chemistry. Elective for other students. Prerequisites, Math. 1 f and 2 s.

Plane analytic geometry includes the study of the loci of equations in two variables, the straight line, conic sections and transcendental curves, and the development of empirical equations from graphs.

MATH. 6 s. *Calculus* (3)—Three lectures. Required of students in Chemistry other than Industrial Chemistry. Elective for other students. Prerequisite, Math. 5 f.

Calculus includes the study of the methods of differentiation and integration and the application of these methods in determining maxima and minima, areas, length of curves, etc., in the plane.

MATH. 7 y. *Calculus; Elementary Differential Equations* (10)—Five lectures. Required of sophomores in the College of Engineering and in Industrial Chemistry. Elective for other students. Prerequisite, Math. 4 s.

Calculus is studied throughout the year. In the second semester several weeks are devoted to the study of elementary differential equations.

Calculus includes a discussion of the methods of differentiation and integration and the application of these methods in determining maxima and minima, areas, length of curves, etc., in the plane; and the determination of areas, volume, etc., in space.

For Advanced Undergraduates and Graduates

MATH. 101 f. *The Mathematical Theory of Investment* (3)—Three lectures. Prerequisites, Math. 1 f and 2 s. Open only to juniors and seniors. Required of students in Business Administration.

The application of mathematics to financial transactions; compound interest and discount, construction and use of interest tables; sinking funds, annuities, depreciation, valuation and amortization of securities, building and loan associations, life insurance, etc. (Alrich.)

MATH 102 s. *Elements of Statistics* (3)—Three lectures. A continuation of Math. 101 f. Prerequisites, Math. 1 f and 2 s. Open only to juniors and seniors. Required of students in Business Administration.

A study of the fundamental principles used in statistical investigation. (Alrich.)

MATH. 103 f. *Differential Equations* (3)—Three lectures. Elective. Prerequisite, Math. 7 y.

Integration of ordinary differential equations. Singular solutions. Integration by Series. Applications to Geometry, Physics, etc. (Dantzig.)

MATH. 104 s. *Theoretical Mechanics.* (3)—Three lectures. Elective. Prerequisite, Math. 7 y.

Elementary Vector Analysis. Statics. Kinematics. The equations of Motion. Applications. (Dantzig.)

MATH. 105 f. *Advanced Topics in Alegbra* (3)—Three lectures. Elective.

Theory of Equations. Galois Groups. Matrices and Determinants. Linear Substitutions. Quadratic Forms. (Dantzig.)

MATH. 106 s. *Advanced Topics in Geometry* (3)—Three lectures. Elective.

The Conic Sections. Homogeneous Co-ordinates. The Quadric Surfaces. Collineations. Principles of Projective Geometry. (Dantzig.)

MATH. 107 f. *Elementary Theory of Functions* (3)—Three lectures. Elective.

Functions of a Real Variable. Polynomials and Rational Functions. Transcendental Functions. Principles of Graphing and of Approximation. (Dantzig.) (Not given in 1930-31.)

MATH. 108 s. *Vector Analysis* (3)—Three lectures. Elective.

Vector Algebra. Applications to geometry and physics. Vector differentiation and integration. Applications to mathematical physics. (Dantzig.) (Not given in 1930-31.)

MATH. 109 y. *Selected Topics in Mathematics* (4)—Two lectures. Elective.

The purpose of the course is to enable advanced students in Physics, Chemistry, Biology, and Economics to understand such mathematics as is encountered in modern scientific literature in the fields named. The course begins with a review of general college mathematics from a mature standpoint. Applications to various problems of thermodynamics, physical chemistry, economic and biometric statistics will be made for illustrative purposes. (Dantzig.) (Not given in 1930-1931.)

MATH. 110 y. *Applied Mathematics* (4)—Two lectures. Elective.

Principles and methods used in the mathematical problems encountered in the Applied Sciences. This course is intended for advanced students in Science and Engineering, and aims to train them in the mathematical formulation of problems in which they are engaged and in the practical solution of these problems. Numerous applications will be considered. (Dantzig.)

For Graduates

MATH. 201 y. *Seminar and Thesis*—Credit hours in accordance with work done. (Dantzig.)

MILITARY SCIENCE AND TACTICS

ASSISTANT PROFESSORS UPSON, BOWES, YOUNG;
MR. MCMANUS, MR. HENDRICKS.

M. I. 1 y. *Basic R. O. T. C.* (2)—Freshman year.

The following subjects are covered:

First Semester

Military Courtesy, Command and Leadership, Physical Drill, Military Hygiene and First Aid.

Second Semester

Physical Drill, Military Hygiene and First Aid, Command and Leadership, Marksmanship.

M. I. 2 y. *Basic R. O. T. C.* (4)—Sophomore year.

The following subjects are covered:

First Semester

Musketry, Command and Leadership, Scouting and Patrolling.

Second Semester

Interior Guard Duty, Automatic Rifle, Command and Leadership.

M. I. 101 y. *Advanced R. O. T. C.* (6)—Junior year.
The following subjects are covered:

First Semester

Infantry Weapons (Machine Guns), Command and Leadership.

Second Semester

Infantry Weapons (Machine Guns, 37 m/m Gun and 3-inch Trench Mortar), Military Sketching and Map Reading, Military Field Engineering, Command and Leadership, Combat Principles.

M. I. 102 y. *Advanced R. O. T. C.* (6)—Senior year.
The following subjects are covered:

First Semester

Combat Principles, Command and Leadership.

Second Semester

Combat Principles, Administration, Command and Leadership, Military Law, Rules of Land Warfare, Military History, and National Defense Act.

MODERN LANGUAGES

PROFESSOR ZUCKER; ASSOCIATE PROFESSORS DEFERRARI, KRAMER; MISS ROSASCO, MISS WILCOX, MR. SCHWEIZER.

In the elementary instruction in languages a differentiation is introduced between students whose chief interest lies in science and those who are studying a language for cultural purposes or with the aim of becoming teachers in this field. For the latter an additional two-hour course in pronunciation and conversation is offered in the second semester, while the former take only the three-hour course designed to give simply a reading knowledge.

Students in the College of Education and in the College of Arts and Sciences (except those carrying special curricula outlined in Section I) will not receive credit for the elementary language course unless they have successfully completed the full eight hours of the first year work.

A. French

FRENCH 1 y. *Elementary French* (6)—Three lectures. No credit given unless both semesters are completed. 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. *Pronunciation and Conversation* (2)—Two lectures.

This course supplements Fr. 1 y. (See paragraph 2, Department of Modern Languages.) In it special emphasis is laid on pronunciation and conversation.

FRENCH 3 y. *Second-Year French* (6)—Three lectures. Prerequisite, French 1 y and 2 s or equivalent.

Study of grammar continued; composition, conversation, translation. Texts selected from modern prose.

FRENCH 4 y. *The Development of the French Novel* (6)—Three lectures and reports.

Introductory study of the history and growth of the novel in French literature; of the lives, work, and influence of various novelists. (Offered 1932-1933.)

This course and the two following ones are offered in successive years.

FRENCH 5 y. *The Development of the French Drama* (6)—Three lectures and reports.

Introductory study of the French drama of the seventeenth, eighteenth, and nineteenth centuries. Translation and collateral reading. (Offered 1930-1931.)

FRENCH 6 f. *Readings in Contemporary French* (3)—Two lectures.

Translation; collateral reading; reports on history, criticism, fiction, drama, lyric poetry. (Offered 1931-1932.)

FRENCH 7 s. *Readings in Contemporary French.* (Continuation of French 6 f.) (3)—Two lectures. (Offered 1931-1932.)

FRENCH 8 f. *French Phonetics* (2)—Two lectures.

FRENCH 9 s. *French Grammar and Composition* (2)—Two lectures. (French 8 f and 9 s are required of students preparing to teach French.)

For Advanced Undergraduates and Graduates

(French 4 y, 5 y, or 6 f, and 7 s, or equivalent are prerequisite for courses in this group.)

FRENCH 101 f. *History of French Literature in the Seventeenth Century* (3)—Three lectures. (Deferrari.) (Not given 1930-1931.)

FRENCH 102 s. *History of French Literature in the Eighteenth Century* (3)—Three lectures. (Deferrari.) (Not given 1930-1931.)

FRENCH 103 f. *History of French Literature in the Nineteenth Century* (3)—Three lectures. (Deferrari.)

FRENCH 104 s. *History of French Literature in the Nineteenth Century.* (3)—Three lectures.

Continuation of French 103 f. (Deferrari.)

FRENCH 105 f. *The Renaissance in France.* (3)—Three lectures. (Deferrari.) (Not given 1930-1931.)

FRENCH 106 s. *The Renaissance in France.* (3)—Three lectures. Continuation of French 105 f. (Deferrari.) (Not given 1930-1931.)

FRENCH 107 f. *The Middle Ages in France* (3)—Three lectures.

Introduction to the study of the literature of the period, with some attention given to etymology and historical grammar. This course is strongly recommended to all those majoring in French. (Deferrari.)

FRENCH 108 s. *The Middle Ages in France* (3)—Three lectures. Continuation of French 107 f. (Deferrari.)

For Graduates

FRENCH 201 y. *Research and Thesis.* Credits determined by work accomplished. (Deferrari.)

Attention is also called to Comparative Literature 105, *Romanticism in France, Germany, and England, and* 106 f, *Introduction to European Philology.*

B. German

GERMAN 1 y. *Elementary German* (6)—Three lectures. No credit given unless both semesters are completed. 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. *Pronunciation and Conversation* (2)—Two lectures.

This course supplements German 1 y (see paragraph 2, Department of Modern Languages). In it special emphasis is laid on pronunciation and conversation.

GERMAN 3 y. *Second-Year German* (6)—Three lectures. Prerequisite, German 1 y and 2 s or equivalent.

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

GERMAN 4 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 1930-1931.)

GERMAN 5 s. *Advanced German* (3)—Three lectures. Continuation of German 4 f. (Not given 1930-1931.)

GERMAN 6 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 4 f.

GERMAN 7 s. *Advanced German* (3)—Three lectures. Continuation of German 6 f.

For Advanced Undergraduates and Graduates

(Prerequisite for courses in this group, German 4 and 5 or equivalent.)

GERMAN 101 f. *German Literature of the Eighteenth Century* (3)—Three lectures. The earlier classical literature. (Zucker.) (Not given in 1930-1931.)

GERMAN 102 s. *German Literature in the Eighteenth Century* (3)—Three lectures. The later classical literature. (Zucker.)

GERMAN 103 f. *German Literature of the Nineteenth Century* (3)—Three lectures. Romanticism and Young Germany. (Zucker.) (Not given 1930-1931.)

GERMAN 104 s. *German Literature of the Nineteenth Century* (3)—Three lectures. The literature of the Empire. (Zucker.) (Not given 1930-1931.)

GERMAN 205 y. *Research and Thesis*—Credits determined by work accomplished. (Zucker.)

Attention is also called to Comparative Literature 105, *Romanticism in France, Germany, and England,* and 106 f, *Introduction to European Philology.*

C. Spanish

SPANISH 1 y. *Elementary Spanish* (6)—Three lectures. No credit given unless both semesters are completed. 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. *Pronunciation and Conversation* (2)—Two lectures.

This course supplements Spanish 1 y (see paragraph 2, Department of Modern Languages.) In it special emphasis is laid on pronunciation and conversation.

SPANISH 3 y. *Second-Year Spanish* (6)—Three lectures. Prerequisite, Spanish 1 y and 2 s or equivalent.

Reading of narrative works and plays; grammar review; oral and written practice.

SPANISH 4 f. *The Spanish Novel* (3)—Three lectures. Prerequisite, Spanish 3 y or equivalent.

An introduction to Spanish literature with special attention given to the novel.

SPANISH 5 s. *The Spanish Novel* (3)—Three lectures. Continuation of Spanish 4 f.

SPANISH 6 f. *Spanish Conversation and Composition* (2)—Two lectures.

SPANISH 7 s. *Spanish Conversation and Composition* (2)—Two lectures. Continuation of Spanish 6 f.

For Advanced Undergraduates and Graduates

SPANISH 101 f. *The Middle Ages in Spain* (3)—Three lectures.

Introduction to the study of the literature of the period, with some attention given to etymology and historical grammar. This course is strongly recommended to all those majoring in Spanish. (Deferrari.)

SPANISH 102 s. *The Middle Ages in Spain* (3)—Three lectures. Continuation of Spanish 101 f. (Deferrari.)

For Graduates

SPANISH 201 y. *Research and Thesis.* Credits determined by work accomplished. (Deferrari.)

D. Comparative Literature

For Advanced Undergraduates and Graduates

The courses in Comparative Literature are, for the time being, under the direction of the Department of Modern Languages. They may be elected as partially satisfying major and minor requirements in this department. Comparative Literature 101 f, 102 s, 104 s, and 105 y may also be counted toward a major or minor in English.

COM. LIT. 101 f. *Introduction to Comparative Literature* (3)—Three lectures.

Survey of the background of European literature through study in English translation of Greek and Latin literature. Special 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 ancients is discussed and illustrated. (Zucker.) (Not given in 1930-1931.)

COM. LIT. 102 s. *Introduction to Comparative Literature* (3)—Three lectures.

Continuation of 101 f; study of medieval and modern Continental literature. (Zucker.) (Not given 1930-1931.)

COM. LIT. 104 s. *The Modern Ibsen.* Lectures on the life of Ibsen and the European drama in the middle of the Nineteenth Century. Study of Ibsen's social and symbolical plays in Archer's translation. (Zucker.)

COM. LIT. 105 y. *Romanticism in France, Germany, and England* (6)—Three lectures and reports.

Introduction to the chief authors of the Romantic movement in England, France, and Germany, the latter two groups being read in English translation. Lectures on the chief thought currents and literary movements of the late eighteenth and early nineteenth centuries. First semester: Rosseau to Gautier; Buerger to Heine. Second semester: Wordsworth, Coleridge, Landor, Byron, Shelley, Keats, and others. The course is conducted by members of both the Modern Language and the English departments. (Deferrari, Zucker, Hale.)

COM. LIT. 106 f. *Introduction to European Philolgy* (3).

Lectures on the development of modern European languages. The purpose of this course is to furnish a general foundation for the scientific study of language. (Sehrt.*)

* Dr. E. H. Sehrt, substituting for Professor Zucker, who is on leave absence for the first semester, 1930-1931.

MUSIC

MR. GOODYEAR.

MUSIC 1 y. *Music Appreciation* (2).

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, the instruments that it employs. The development of the symphony and orchestra instruments for solo performance. The development of the opera and oratorio. Great singers of the past and present. (Goodyear.)

MUSIC 2 y. *University Chorus* (2).

Study of part-songs, cantatas, and oratorios. Credit is awarded for regular attendance at weekly rehearsals, and participation in public performances of the chorus.

Students admitted who have ability to read and sing music of the grade of easy church hymns. No student may receive more than four credits for work in University Chorus. (Goodyear.)

MUSIC 3 y. *University Orchestra* (1 credit for each semester satisfactorily completed).

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 are eligible for membership who play orchestral instruments. At least one rehearsal of two hours duration is held each week, and all players are expected to take part in public performances. (Goodyear.)

MUSIC 4 f. *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 period of the renaissance; the classic and the romantic schools and the more modern composers. (Goodyear.)

(For courses in Voice and Piano, see under College of Arts and Sciences.)

PHILOSOPHY

PROFESSOR SPENCE.

PHIL. 1 f. *Introduction to Philosophy* (3)—Three lectures and assignments.

A study of the meaning and scope of philosophy; its relation to the arts, sciences, and religion. To be followed by Phil. 2 s.

PHIL. 2 s. *Problems and Systems of Philosophy* (3)—Three lectures and reports on the reading of representative works. Prerequisite, Phil. 1 f.

Study of the problems and systems of philosophy, together with tendencies of present-day thought.

MYTH. 1 s. *Mythology* (1)—One lecture.

Origin and reason of folklore and myth. Comparison of myths, mythology and modern thought.

For Advanced Undergraduates and Graduates

PHIL. 101 y. *History of Philosophy* (6)—Three lectures. Senior standing required.

A study of the development of philosophy from prehistoric times, through Greek philosophy, early Christian philosophy, medieval philosophy to modern philosophical thought. (Spence.)

PHYSICAL EDUCATION FOR WOMEN

MISS STAMP.

PHYS. ED. 1 y. *Physical Education and Personal Hygiene* (2)—Freshman course required of all women.

This course consists of instruction in hygiene, one period a week, and physical training activities, two periods a week throughout the year.

A. *Personal Hygiene.* The health ideal and its attainment; care of the body relative to diet, exercise, sleep, bathing, etc., and social hygiene.

B. *Physical Activities.* The aim is to adapt the physical activities to the needs of groups and individuals. Gymnastic practice, indoor and outdoor games, sports, and athletics are provided. The repertory of games and sports is as follows: basketball, hiking, rifle shooting, swimming, tennis, and track and field events.

PHYS. ED. 2 y. *Physical Education and General Hygiene* (4)—Sophomore course required of all women.

This course is a continuation of the freshman course. The work in hygiene includes the elements of physiology; the elements of home, school, community hygiene; and a continuation of social hygiene. The program of physical activities is essentially the same as in the first year.

PHYSICS

PROFESSOR EICHLIN; MR. CLARK.

PHYS. 1 y. *General Physics* (8)—Three lectures; one laboratory. Required of students in the Pre-medical curriculum and in the General and Agricultural Chemistry curricula. Elective for other students. Prerequisites, Math. 1 f and 2 s.

A study of the physical phenomena in mechanics, heat, sound, magnetism, electricity, and light.

PHYS. 2 y. *General Physics* (10)—Four lectures; one laboratory. Required of all students in the Engineering and Industrial Chemistry curricula. Elective for other students. Prerequisites, Math. 3 f and 4 s.

A study of mechanics, heat, sound, magnetism, electricity, and light.

PHYS. 3 s. *Special Applications of Physics* (4)—Three lectures; one laboratory. Especially for students in Home Economics.

A discussion of the laws and theories of Physics from the viewpoint of their practical application.

PHYS. 4 y. *Physics Problems* (2)—One lecture. Required of students in the General and Agricultural Chemistry curricula. Elective for other students. Prerequisite, Phys. 1 y.

A problem course supplementary to Phys. 1 y.

For Advanced Undergraduates and Graduates

PHYS. 101 f. *Physical Measurements* (3)—Two lectures; one laboratory. Elective. Prerequisite, Phys. 1 y or 2 y.

This course is designed for the study of physical measurements and for familiarizing the student with the manipulation of the types of apparatus used in experimentation in physical problems. (Clark.)

PHYS. 102 y. *Graphic Physics* (2)—One lecture. Elective. Prerequisite, Phys. 1 y or 2 y.

A study of physical laws and formulae by means of scales, charts, and graphs. (Eichlin.)

PHYS. 103 f. *Advanced Physics* (3)—Two lectures; one laboratory. Required of students in the Industrial Chemistry curriculum. Elective for other students. Prerequisite, Phys. 2 y.

An advanced study of Molecular Physics, wave motion, and heat. (Eichlin.)

PHYS. 104 s. *Advanced Physics* (3)—Two lectures; one laboratory. Elective. Prerequisite, Phys. 2 y.

An advanced study of electricity and magnetism. (Eichlin.)

PHYS. 105 y. *Advanced Physics* (6)—Three lectures. Elective. Prerequisite, Phys. 1 y or 2 y.

A study of physical phenomena in optics, spectroscopy, conduction of electricity through gases, etc., with a comprehensive review of their basic underlying principles. (Eichlin.)

For Graduates

PHYS. 201 y. *Modern Physics* (6)—Three lectures. Elective.

A study of some of the problems encountered in modern physics. (Eichlin.)

PLANT PATHOLOGY

PROFESSORS NORTON, TEMPLE*

(*For other Botanical Courses see Botany and Plant Physiology*)

PLT. PATH. 1 f. *Diseases of Plants* (3)—Two lectures; one laboratory. Prerequisite, Gen. Bot. 1 f or s.

An introductory study in the field, in the laboratory, and in the literature, of symptoms, casual organisms, and control measures of the diseases of economic crops.

* Both on part time teaching.

For Advanced Undergraduates and Graduates

PLT. PATH. 101 s. *Diseases of Fruits* (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1 f. Not offered in 1930-1931.

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.

PLT. PATH. 102 s. *Diseases of Garden and Field Crops* (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1 f. Not offered in 1931-1932.

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.

PLT. PATH. 103 f. *Research Methods* (2)—One conference and five hours of laboratory and library work. Prerequisite, Plt. Path. 1 f or equivalent.

Technique of plant disease investigations: sterilization, culture media, isolation of pathogens, inoculation methods, single-spore methods, disinfectants, fungicides, photography, preparation of manuscripts, and the literature in the scientific journals and bulletins on these subjects. (Temple.)

PLT. PATH. 104 f and s. *Minor Investigations*—Credit according to work done. A laboratory course with an occasional conference. Prerequisite, Plt. Path. 1 f.

In this course the student may enter or withdraw at any time, including the summer months, and receive credit for the work accomplished. The course is intended primarily to give practice in technique so that the student may acquire sufficient skill to undertake fundamental research. Only minor problems or special phases of major problems may be undertaken. Their solution may include a survey of the literature on the problem under investigation and both laboratory and field work. (Temple and Norton.)

PLT. PATH. 105 s. *Diseases of Ornamentals* (2)—One lecture; one laboratory. Not offered in 1931-1932.

The most important diseases of plants growing in greenhouse, flower garden, and landscape, including shrubs and shade trees. (Temple.)

PLT. PATH. 106 f and s. *Seminar* (1).

Conferences and reports on plant pathological literature and on recent investigations. (Temple.)

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. (Jehle, Temple, Hunter.)

PLT. PATH. 108 f. *Plant Disease Identification*—Credit according to work accomplished. A laboratory and field study with conferences.

An extensive study of symptomatology and mycology leading to the identification of pathogens and the diseases caused by them. (Norton, Temple.)

PLT. PATH. 109 f or s. *Pathogenic Fungi* (2-5)—One lecture and one or more laboratory periods, according to credit. Prerequisites, Bot. 1 f or s and Bact. 1 f or s. Not offered in 1931-1932.

A detailed treatment of the classification, morphology, and economics of the fungi, with studies of life histories in culture; identification of field materials. (Norton.)

For Graduates

PLT. PATH. 201 f. *Virus Diseases* (2)—Two lectures. Not offered 1930-1931.

An advanced course dealing with the mosaic and similar or related diseases of plants, including a study of the current literature on the subject and the working of a problem in the greenhouse. (Temple.)

PLT. PATH. 203 f. *Non-Parasitic Diseases* (3)—Two lectures; one laboratory. Not offered in 1930-1931.

Effects of maladjustment of plants to their environment; injuries due to climate, soil, gases, dusts and sprays, fertilizers; improper treatment and other detrimental conditions. (Norton.)

PLT. PATH. 205 y. *Research*—Credit according to work done. (Norton, Temple.)

PLANT PHYSIOLOGY AND BIOCHEMISTRY

PROFESSOR APPLEMAN; ASSOCIATE PROFESSOR JOHNSTON;
ASSISTANT PROFESSOR CONRAD; MR. SMITH.

(*For other Botanical courses see Botany and Plant Pathology*)

PLT. PHY. 1 f. *General Plant Physiology* (4)—Two lectures; two laboratories. Prerequisite, Gen. Bot. 1 f or s.

Water requirements, principles of absorption, mineral nutrients, transpiration, synthesis of food, metabolism, growth, and movements.

For Advanced Undergraduates and Graduates

PLT. PHY. 101 s. *Plant Ecology* (3)—One lecture; two laboratories. Prerequisite, Bot. 1 f or s.

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.

BIOCHEM. 102 f. *General Biochemistry* (4)—Two lectures; two laboratories. Prerequisites, General Chemistry (Chem. 1 y), Analytical Chemistry (Chem. 7 y) or their equivalents; also an elementary knowledge of organic chemistry.

A general course in chemical biology treated from the point of view of both plants and animals. The first half of the course is devoted to the chemistry of protoplasm and its products. The second half of the course deals with cell metabolism, and embraces processes and problems of fundamental importance in both animal and plant life. Not given every year. (Appleman, Conrad.)

For Graduates

PLT. PHYS. 201 s. *Plant Biochemistry* (4)—Two lectures; two laboratories. Prerequisites, Biochem. 102 f or Chem. 104 f and an elementary knowledge of plant physiology.

An advanced course on the chemistry of plant life. It deals with materials and processes characteristic of plant life. Primary syntheses and the transformations of materials in plants and plant organs are especially emphasized. (Appleman, Conrad.)

PLT. PHYS. 202 f. *Plant Biophysics* (3-4)—Two lectures; one or two laboratories. Prerequisites, one year's work in physics and an elementary knowledge of physical chemistry and plant physiology.

An advanced study of the operation of physical forces in plant physiological processes. The relation of climatic conditions to plant growth and practice in recording meteorological data constitute a part of the course. (Johnston.)

PLT. PHYS. 203 s. *Plant Microchemistry* (2)—One lecture; one laboratory. Prerequisites, Bot. 1 f or s, 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. (Conrad.)

PLT. PHYS. 204 s. *Special Problems of Growth and Development* (2)—Not given every year. (Appleman, Johnston.)

PLT. PHYS. 205 y. *Seminar* (2).

The students are required to prepare reports of papers in the current literature. These are discussed in connection with the recent advances in the subject.

PLT. PHYS. 206 y. *Research*—Credit hours according to work done.

Students must be specially qualified by previous work to pursue with profit the research to be undertaken. (Appleman, Johnston.)

POULTRY HUSBANDRY

PROFESSOR WAITE, ASSISTANT PROFESSOR QUIGLEY.

POULTRY 1 s and 101 s. *Farm Poultry* (3)—Two lectures; one laboratory.

A general course in poultry raising, including housing, feeding, incubation, brooding, breeds, breeding, selection of stock, culling, general management, and marketing.

POULTRY 102 f. *Poultry Keeping* (4)—Two lectures; two laboratories. Prerequisite, Poultry 101 s.

A study of housing and yarding, practice in making poultry house plans, feeding, killing, and dressing.

POULTRY 103 s. *Poultry Production* (4)—Two lectures; two laboratories. Prerequisites, Poultry 101 s and 102 f.

The theory and practice of incubation and brooding, both natural and artificial. Study of incubators and brooders, assembling, etc. Considerable stress will be placed on the proper growing of chicks into good laying pullets. General consideration of poultry disease. Caponizing.

POULTRY 104 f. *Poultry Breeds* (4)—Two lectures; two laboratories. Prerequisites, Poultry 101 s, 102 f and 103 s.

A study of the breeds of poultry, the judging of poultry, fitting for exhibition, and the methods of improvement by breeding.

POULTRY 105 s. *Poultry Management* (4)—Two lectures; two laboratories. Prerequisites, Poultry 101 s, 102 f, 103 s, and 104 f.

A general fitting together and assembling of knowledge gained in the previous courses. Culling, marketing, including both selling of poultry products and the buying of supplies, keeping poultry accounts, hatchery management and operation, a study of poultry profits, how to start.

PSYCHOLOGY

ASSOCIATE PROFESSOR SPROWLS.

PSYCH. 1 f or s. *Elements of Psychology* (3)—Two lectures and one conference. Seniors in this course receive but two credits.

The concept of consciousness as dependent upon the reactions of the individual is applied to the problems of human behavior. In this course the fundamental facts and principles of mental life are presented as a basis, not only for better understanding the behavior of others, but also for the intelligent use of individual capacities and the formation of desirable personality and character traits. This course is given in both the first and second semesters.

See "Education" for description of the following courses:

ED. 101 f. *Educational Psychology* (3).
ED. 106 s. *Advanced Educational Psychology* (3).
ED. 107 f. *Educational Measurements* (3).
ED. 108 s. *Mental Hygiene* (3).

PUBLIC SPEAKING

PROFESSOR RICHARDSON; MR. WATKINS, MISS BEALL.

P. S. 1 y. *Reading and Speaking* (2)—One lecture.

The principles and technique of oral expression; enunciation, emphasis, inflection, force, gesture, and the preparation and delivery of short original speeches. Impromptu speaking. Theory and practice of parliamentary procedure.

P. S. 2 f. *Advanced Public Speaking* (2)—Two lectures.

Advanced work on basis of P. S. 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 field of the prospective vocation 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.

P. S. 2 s. *Advanced Public Speaking* (2)—Two lectures. Continuation of P. S. 2 f.

P. S. 3 y. *Oral Technical English* (2)—One lecture.

The preparation and delivery of speeches, reports, etc., on both technical and general subjects. Argumentation. This course is especially adapted to the needs of engineering students and is co-ordinated with the seminars of the College of Engineering.

P. S. 4 y. *Advanced Oral Technical English* (2)—One lecture.

This course is a continuation with advanced work of P. S. 3 y. Much attention is given to parliamentary procedure. Some of the class programs are prepared by the students and carried out under student supervision. For junior engineering students only.

P. S. 5 y. *Advanced Oral Technical English* (2)—One lecture.

Advanced work on the basis of P. S. 4 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.

P. S. 7 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.

P. S. 8 s. *Extempore Speaking* (1)—One lecture.

Continuation of P. S. 7 f.

P. S. 9 f. *Debate* (2)—Two lectures.

A study of the principles of argumentation. A study of masterpieces in argumentative oratory. Class work in debating. It is advised that those who aspire to intercollegiate debating should take this course.

P. S. 10 s. *Argumentation* (2)—Two lectures.

Theory and practice of argumentation and debate. Similar to course P. S. 9 f. This course is offered for the benefit of those who may find it impracticable to take this work in the first semester.

P. S. 11 f. *Oral Reading* (2)—Two lectures.

A study of the technique of vocal expression. The oral interpretation of literature. The practical training of students in the art of reading.

P. S. 12 s. *Oral Reading* (2)—Two lectures.

Continuation of P. S. 11 f.

P. S. 13 f. *Special Advanced Speaking* (2)—Two lectures.

Class is organized as a Civic Club, and the work consists of such activities as are incident to such an organization—parliamentary law, committee work, prepared and impromptu speeches, etc.

Primarily for students in College of Education.

P. S. 14 s. *Special Advanced Speaking* (2)—Two lectures.

Continuation of P. S. 13 f.

ZOOLOGY AND AQUICULTURE

PROFESSORS PIERSON, TRUITT; ASSISTANT PROFESSOR MCCONNELL; MR. BURHOE.

ZOOL. 1 f or s. *General Zoology* (4)—Two lectures; two laboratories.

This course is cultural and practical in its aims. It deals with the basic principles of animal development, morphology, relationships, and activities which are valuable for a proper appreciation of the biological and the social sciences.

ZOOL. 2 f. *Elements of Zoology* (4)—Two lectures; two laboratories.

Emphasis is given to the fundamentals of the biology of vertebrates with the frog as an example. The functions of the organ systems of man are reviewed. This course with Zool. 3 s satisfies the pre-medical requirements in biology. Freshmen who intend to choose zoology as a major should register for Zool. 2 f and Zool. 3 s.

ZOOL. 3 s. *Elements of Zoology* (4)—Two lectures; two laboratories. Prerequisite, Zool. 2 f. Continuation of Zool. 2 f.

Students with credit for Zool. 1 f or s are not eligible for this course, but may be admitted to Zool. 2 f.

Presents many of the primary biological concepts and generalizations through the study of typical one-celled and the simpler many-celled animals.

ZOOL. 4 s. *Economic Zoology* (2)—Two lectures. Prerequisite, one course in Zoology or Botany 1 f or s.

The content of this course will center around the problems of preservation, conservation, control, and development of the economic wild life of Maryland, especially the blue crab and oyster. The lectures will be supplemented by assigned readings and reports.

ZOOL. 5 f. *The Invertebrates* (3)—One lecture; two laboratories. Prerequisite, Zool. 1 f or s.

This course consists in a study of the morphology and relationships of the principal invertebrate phyla. Required of students selecting Zoology and Aquiculture as the principal department in the major group.

ZOOL. 6 s. *Field Zoology* (3)—One lecture; two laboratories.

This course consists in collecting and studying both land and aquatic forms of nearby woods, fields, and streams, with special emphasis placed upon insects and certain vertebrates, their breeding habits, environment, and economic importance.

ZOOL. 8 f. *Comparative Vertebrate Morphology* (4)—Two lectures; two laboratories. Prerequisite, Zool. 2 f or 5 f.

Required of pre-medical students and of students selecting Zoology and Aquiculture as the principal department in the major group. A comparative study of selected organ systems in some of the classes.

ZOOL. 12 s. *Normal Animal Histology* (3)—One lecture; two laboratories. Prerequisite, Zool. 1 f or s or equivalent. (Not offered in 1930-1931.)

This course covers the general field of animal histology and is not restricted to mammalian forms. Thus, although it presents a good background for medical histology, it offers a broad foundation of general histology for the student whose major is zoology. (Number limited to twenty.)

ZOOL. 16 f or s. *Advanced Comparative Vertebrate Morphology* (2)—Two laboratories. Schedule to be arranged. Prerequisite, Zool. 8 f or its equivalent.

This is a continuation of Zool. 8 f., but will consist of laboratory work only. A maximum opportunity is offered to develop initiative and the spirit of investigation.

For Advanced Undergraduates and Graduates

ZOOL. 101 s. *Embryology* (4)—Two lectures; two laboratories. Prerequisite, two semesters of biology, one of which should be in this department. Required of three-year pre-medical students.

The development of the chick to the end of the fourth day. (Pierson, McConnell.)

ZOOL. 102 y. *Mammalian Anatomy* (2-3)—A laboratory course. Prerequisite, one year of zoology.

A thorough study of the gross anatomy of the cat or other mammal. Open to a limited number of students. The permission of the instructor in charge should be obtained before registering for this course. Schedule to be arranged. (Pierson.)

ZOOL. 103 y. *Journal Club.* Credit to be arranged.

Reviews, reports, and discussions of current Zoological literature. Required of students selecting Zoology and Aquiculture as the principal department in the major group. (Staff.)

ZOOL. 105 y. *Aquiculture* (2)—Lectures and laboratory to be arranged. Prerequisites, one course in general zoology and one in general botany.

Plankton studies and the determination of other aquatic life of nearby streams and ponds. Morphology and ecology of representative commercial and game fishes in Maryland, the Chesapeake blue crab, and the oyster. (Truitt.)

ZOOL. 110 s. *Organic Evolution* (2)—Two lectures. Prerequisites, two semesters of biological science, one of which must be in this department.

The object of this course is to present the zoological data on which the theory of evolution rests. The lectures will be supplemented by discussion, collateral reading, and reports. (Pierson.)

ZOOL. 115 y. *Vertebrate Zoology*—Credit hours and schedule to be arranged to suit the individual members of the class.

Each student may choose, within certain limits, a problem in taxonomy, morphology, or embryology. (Pierson, McConnell.)

ZOOL. 120 s. *Genetics* (3)—Two lectures; one laboratory. Prerequisite, one course in general zoology or general botany.

A general introductory course designed to acquaint the student with the fundamental principles of heredity and variation. While primarily of interest to students of biology, it will be of value to those interested in the humanities. Required of students in zoology and aquiculture who have no credit for Genetics 101 f. (Burhoe.)

ZOOL. 140. *Marine Zoology*—Credit to be arranged.

This work is given at the Chesapeake Laboratory, which is conducted cooperatively by the Maryland Conservation Department and the Department of Zoology and Aquiculture, on Solomons Island, where the research is directed primarily toward those problems concerned with commercial forms, especially the blue crab and the oyster. The work starts during the third week of June and continues until mid-September, thus affording ample time to investigate complete cycles in life histories, ecological relationships, and plankton contents. Course limited to few students, whose selection will be made from records and recommendations submitted with applications, which should be filed on or before June 1st.

Laboratory facilities, boats of various types fully equipped (pumps, nets, dredges, and other apparatus) and shallow water collecting devices are available for the work without extra cost to the student. (Truitt.)

GENETICS 101 f. (See page 198.)

For Graduates

ZOOL. 200 y. *Zoology Problems.* (Pierson, Truitt, McConnell.)

SECTION IV
DEGREES, HONORS, STUDENT REGISTER

DEGREES CONFERRED, 1929

HONORARY DEGREES

REVEREND CHARLES B. MOULINIER, S. J., Doctor of Laws

HONORARY CERTIFICATES OF MERIT

ARTHUR L. TOWSON — DANIEL S. PEARCE

MR. AND MRS. H. M. BAKER

THE GRADUATE SCHOOL

Doctor of Philosophy

GILES BUCKNER COOKE
B.S. College of William and Mary, 1923
M.S. University of Maryland, 1926
Dissertation:
"The Action of Sulfuric Acid on Methyl Isopropyl Carbinol."

GEORGE HAINES
B.S. Cornell University, 1917
M.S. Cornell University, 1918
Dissertation:
"A Study of Fertility and Related Conditions in the Guinea Pig."

MILLARD JACOB HORN
B.S. University of Maryland, 1925
M.S. University of Maryland, 1926
Dissertation:
"An Investigation on the Proteins of the Peanut, Arachis Hypogaea."

ALBERT FREEMAN MASON
B.S.Oregon State Agricultural College, 1914
M.S. Pennsylvania State College, 1915
Dissertation:
"A Physiological Study of the Effects of Different Nitrogen Carriers on the Nitrogen Nutrition of Orchard Plants."

ANDREW J. MOYER
A.B. Wabash College, 1922
M.S. North Dakota Agricultural College, 1925
Dissertation:
"Studies of the Growth Responses of Fungi to Boron, Manganese, and Zinc."

MERRITT NICHOL POPE
B.S. Northwestern University, 1905
M.A. Harvard University, 1911
Dissertation:
"Catalase Activity in Relation to the Growth Curve of Barley."

CHARLES LINTON SMITH
B.S. Alabama Polytechnic Institute, 1921
M.S. University of Maryland, 1927
Dissertation:
"A Comparative Study of the Respiratory Responses in Vegetables after Periods of Cold Storage."

WILLIAM HAROLD UPSHALL
B.S. Ontario Agricultural College, 1923
M.S. Michigan Agricultural College, 1926
Dissertation:
"The Propagation of Apples by Means of Root Cuttings."

Master of Arts

ARTHUR CALVIN BREADY
SAMUEL MCCARDELL JENNESS
VERLIN C. KRABILL
ROWENA G. MCCOLLEY
EDMUND ERSKIN MILLER
KATHERINE BROOKS MORSE
ELLWOOD RADMOOR NICHOLAS
GEORGE TIMOTHY O'NEILL
ELMER HEMPEL REHBERGER
ESTELLE ROWE
KENNETH GORDEN STONER
ADELYN BEATRICE VENEZKY
RALPH RAYNER WEBSTER
MARY STEWART YORK

Master of Science

GEORGE JENVEY ABRAMS
ELMER ARTHUR BEAVENS
MARTIN BECKER
MYRON HERBERT BERRY
JOSEPHINE MUDD BLANDFORD
JOHN J. BOWMAN
LEWIS POLSTER DITMAN
DANIEL COX FAHEY, JR.
WILTON COPE HARDEN
ROBERT L. HERD
HARRY JAMES NEWELL
ENGELBERT HERRLING SCHMIDT
EDOUARD HORACE SIEGLER
FLORENCE TUCKER SIMONDS
CHARLES STRATTON STOOPS
WILLIAM MILLAN STUART
BENTON BOSWORTH WESTFALL
KATHERINE KIRK WORTHINGTON
LEIDY DETWILER ZERN

COLLEGE OF AGRICULTURE

Bachelor of Science

WILLIAM H. COCKERILL
WILLIAM CECIL COOPER
WILLIAM MOORE GARDEN
ARTHUR BRYAN HAMILTON
MERL F. HERSHBERGER
ROBERT STANLEY JOHNSTON
JOSEPH CONRAD LONG
RALPH BERNARD NESTLER
MORRIS OSTROLENK
E. KENNETH RAMSBURG
CECIL ALFRED RENEGER
RAYMOND JEROME ROMARY
ROSS VERNON SMITH
STANLEY PHILLIPS STABLER
LAWRENCE WILLIAM STRASBURGER
THERET THORNTON TAYLOR

Certificates—Two-Year Course in Agriculture

LUIS F. VASQUEZ-BELLO
JOAQUIN NAVAS, JR.
HUGH M. RUDIGER

COLLEGE OF ARTS AND SCIENCES

Bachelor of Arts

GEORGE A. AMAN
RUTH BARNARD
H. ROSS BLACK, JR.
HERBERT NELSON BUDLONG

EDITH FRANCES BURNSIDE
EDNA MAY BURNSIDE
GEORGE THOMAS DUVALL BURROUGHS
JAMES WILKINSON CHAPMAN, III
THOMPSON BOWKER CLAYTON
OMAR D. CROTHERS, JR.
THURSTON NOURSE DEAN
CLARENCE TRUMAN ENSOR
HERMAN EPSTEIN
WILLIAM FLETCHER
CLAIRE LUCILLE FOREMAN
CLEMENCIA ANN GAUSE
ALBERT LEON GUERTLER
OLYURE MILDRED HAMMACK
*ROBERT EVERETT HOAR
JOHN EDWARD HOLLAND, JR.
HENRY HOLZAPFEL, III
WILLIAM MCCLAVE HOLZAPFEL
JAMES BIRCH HUDSON, JR.
RICHARD CARLISLE INSLEY
WADE HAMPTON INSLEY, JR.
JOSEPH LEONARD JONES
J. RUSSELL JONES
NORMA MARIE KAHNEY
JOHN LEO KEENAN
HAROLD L. KREIDER
PHYLLIS WALZ KRESS
ROSE ALICE LAUGHLIN
FRED BUFFINGTON LINTON
BURTON ALLEN MCGANN
WALTER GELSTON MCNEIL, JR.
JOHN HUGHES NORTON, JR.
MARIAN KNOX PALMER
DONALD HENRY SHERIDAN PARRIS
ALICE PENELOPE PHILIPS
WALTER PRESTON PLUMLEY, JR.
ADDISON SCOTT POLLOCK
BARNEY MORTON ROBBIN
FRANCES LOUISE SELLMAN
EDWARD ALLEN SHEPHERD
ROBERT COOK SIMMONS
DOUGLAS I. SMINK
E. NELSON SNOUFFER, JR.
GERTRUDE CROPLEY SPEIDEN
BARTRAM FRANKLIN STIFFLER
VIRGINIA MILLER STURGIS
MARGARET ELAINE TEMPLE
HAZEL JULIA TENNEY
HAZEL EMMA WATSON
PHILIP WERTHEIMER
*ROBERT MAPHIS WICK
AUGUSTINE EDWARD WINNEMORE

Bachelor of Science

BRUCE ROBERT BILLMEYER
BERNARD BRILL
NICHOLAS MARIUS COMODO
MILDRED MARIE CROLL
JAMES ARTHUR DEMARCO
*JOSEPH G. DIAMOND
FRANK DISTASIO
*JOHN C. DUMLER
SIDNEY NORTON EICHENHOLTZ
PAUL LEWIS FISHER
*DAVID HALPERIN
REUBEN HENRY ISRAELSON
AARON LOUIS KAMINSKY
GORDON ALBERT KESSLER
WILLIAM LUTHER LAMAR
GEORGE CARLTON OLAND
HARRY CLARENCE ORT
MOSES PAULSON
*HARRIETTE VIRGINIA PEASELEY
MAURICE HERBERT PINCUS
*SOLOMON HARRIS PINK
*DANIEL ROBERT ROBINSON
MORRIS M. ROSENBERG
SIDNEY SOLMON ROSENSTEIN
*ROBERT RUBENSTEIN
*HAROLD SAGER
JOHN EDMUND SCHUELER, JR.
*ARTHUR JAMES STATMAN
JEANETTE CHARLOTTE SUGAR
HARRY ALLEN TIETELBAUM
BENJAMIN EARL WENGER

* Degrees conferred after June, 1929.

SCHOOL OF BUSINESS ADMINISTRATION

Bachelor of Science in Business

ELSA R. LONG

Bachelor of Commercial Science

* NATHAN FRIEDMAN

SCHOOL OF DENTISTRY

Doctor of Dental Surgery

ALLEN ABRAMS
FRANCIS GORDON ALLANACH
MURRAY A. ARONSON
JULIUS E. BELFORD
*FRANCIS J. BERGEN, JR.
*ISADORE IRVING BERNSTEIN
SAMUEL BLOOM
ERNEST EVERETT BOBYS
MARK EDWIN BOWERS
*LLOYD LUTHER BOYER
RALPH ALEXANDER BRAND
BENJAMIN B. BRAUER
OLIVER T. BRICE
LAWRENCE T. BRUSKIN
CHARLES WILLIAM BUTTERMORE
JOSEPH ALBERT CAPONE
GEORGE B. CLENDENIN
ALOYSIUS P. CRANWELL
EDWARD CLARENCE DOBBS
ARTHUR DUDLEY DRAKE
HUGH WILLIAM EADIE
HERMAN EHRLICH
MORRIS COLBURN FANCHER
DAVID DUDLEY FOGELMAN
ALAN LESLIE GORDON
RAYMOND DOBSON GRACE
*MAXWELL M. GREEN
HERBERT HERMAN GREENBERG
LEON CARL GROSSMAN
MORRIS I. HARBER
FREDERIC S. HAROLD
GARY HEESEMAN
H. HANSFORD HILL
CORNELIUS D. HOGAN
TREVOR HOLROYD
HOWARD MELVIN JOHNSON
LEE ANDREW JOYCE
BEN B. KAPLAN
IRVING H. KAPLAN
HUBERT WILLIAM LANE
JAMES PATRICK LAWLOR
JOHN WILLIAM LAZZELL
MONTAGUE SAMUEL LEVY
JAMES FITZGERALD LEWIS
JULIUS JOSEPH LURIE
CLARENCE RICHARD MCCURDY
*T. DONALD MCLEOD
THOMAS E. MARIANI
JOHN ALEXANDER MARTINDALE
MAX NORMAN MATZKIN
CORD MEYER, JR.
WILLIAM LEO MEYER
JOSEPH ANTHONY MICHNIEWICZ
FLOYD P. H. MOORE
ALFRED GRAHAM MUNKITTRICK
*CHARLES FRANCIS MURRAY
FRANK JOSEPH O'CONNOR, JR.
ALFRED EDWARD O'MALLEY
CARL H. OERTEL
PAUL Q. OHSLUND
LUDOLPHUS GRAHAM PAGE
LLOYD WILSON PATTERSON
*FRANCIS WENDELL PHILLIPS
KYRLE WILLIAM PREIS
FREDERICK C. QUILLEN

* Degrees conferred after June, 1929.

LAWRENCE STEPHEN QUINN
*GEORGE F. RAMSDEN
THEODORE ALFRED RICHTER
EDWIN JAMES ROBERTS, JR.
MILTON ROBIN
CECILIO R. ROBLES
BENJAMIN ALVA ROSE
SOL ROSEN
MAX SANDBERG
MAURICE J. SAVITZ
CHARLES HOWARD SCHEID
WILLIAM CHARLES SCHWARZ
*ELWOOD WOODROW SEELEY
SAMUEL WILSON SHAFFER
JOHN HAYWARD SHARPLEY
*JOHN VAN DEURSEN SHERLOCK
HARRY B. SHPINER
SAMUEL E. SILBER
CLARENCE R. SLAVIK
JAMES CRIGLER SMITH
LINDEN NEESE SPITZER
ROBERT GORDON SPRINGER
FRANK E. STAMP
JOHN THOMAS STANG
HENRY LEWIS STEPHENSON
*NELSON JOHN THOMAS
HENRY EDWARD TIERNEY
EUGENE JOSEPH TIRPAK
*WILLIAM E. TRUNDLE
RUDOLPH SMITH TULACEK
*JOHN FREMONT WALKER
SHERIDAN NEWTON WATKINS
SIMON L. WEINER
HERMAN L. WEISLER
EDWARD WEITZ
NORTON THOMAS WILLIAMS
JOHN MARTIN CLAYTON WILLIN, JR.
S. LLOYD WOLF

COLLEGE OF EDUCATION

Bachelor of Arts

ELEANOR PARKER FREENY
*FRANK JOHN GETTY
REBEKAH FRANCES GLADING
EMILY CATHERINE HERZOG
FRANCES HIRSHEY
MILDRED ARLINGTON HISLOP
J. ORVILLE KEFAUVER
NELLIE RINE KOOKEN
HAZEL BELLE KREIDER
FRANCES JAYNE MAISCH
MARY ELIZABETH MURRAY
HELEN FRANCES NEELY
VIRGINIA ESTELLE NICKELL
JOHN BERNARD PARSONS
MARCIA ELIZABETH PIERCE
PRESTON WILEY RAMSAY
CARRIE ELAINE ROBEY
CATHERINE AUDREY RYON
ANTOINETTE ANGELINE SANTINIE
ADELE M. SIEHLER
BLANCHE ESTELLE WALTER
HENRY STREETT WHITEFORD

Bachelor of Science

PHILIP CORKRAN
BAXTER BYRON CRAMER
M. GLADYS DICKERSON
ELIZABETH MAE GARBER
ELLA J. HADAWAY
MARY KATHERINE JOHNSON
MAY GRACE LIGHTER
FRED CECIL LINKOUS
ANNE RASIN MATTHEWS
JAMES OSWALD MCWILLIAMS
MARY NAOMI MORRIS
THERESA BARBARA NICHT
ANNA LOLETA PRICE
MARY COOK ROGERS
MARION WEEDMAN WALLACE
CHARLES MERRICK WILSON
JOHN ARTHUR WONDRACK

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* Degrees conferred after June, 1929.

Teachers' Special Diplomas

EDITH FRANCES BURNSIDE
EDNA MAY BURNSIDE
PHILIP CORKRAN
BAXTER BYRON CRAMER
M. GLADYS DICKERSON
MENA RUBINA EDMONDS
PAUL LEWIS FISHER
CLAIRE LUCILLE FOREMAN
ELEANOR PARKER FREENY
ELIZABETH MAE GARBER
CLEMENCIA ANN GAUSE
REBEKAH FRANCES GLADING
ALBERT LEON GUERTLER
ELLA J. HADAWAY
OLYURE MILDRED HAMMACK
EMILY CATHERINE HERZOG
FRANCES HIRSHEY
MILDRED ARLINGTON HISLOP
NORMA MARIE KAHNEY
J. ORVILLE KEFAUVER
NELLIE RINE KOOKEN
HAZEL BELLE KREIDER
PHYLLIS WALZ KRESS
MAY GRACE LIGHTER
FRED CECIL LINKOUS
FRANCES JAYNE MAISCH
ANNE RASIN MATTHEWS
JAMES OSWALD MCWILLIAMS
ALVERTA PEARL MILLER
MARY NAOMI MORRIS
KATHERINE BROOKS MORSE
MARY ELIZABETH MURRAY
HELEN FRANCES NEELY
THERESA BARBARA NICHT
VIRGINIA ESTELLE NICKELL
JOHN HUGHES NORTON, JR.
JOHN BERNARD PARSONS
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ANNA LOLETA PRICE
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CARRIE ELAINE ROBEY
MARY COOK ROGERS
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FRANCES LOUISE SELLMAN
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ROSS VERNON SMITH
MARION WEEDMAN WALLACE
BLANCHE ESTELLE WALTER
HAZEL EMMA WATSON
HENRY STREET WHITEFORD
CHARLES MERRICK WILSON
JOHN ARTHUR WONDRACK

Certificates in Industrial Education

CHARLES RALPH ANDERSON
JAMES THOMAS BLACKISTON, JR.
EDWARD MARKEY BOYLAN
GEORGE WASHINGTON HOFFACKER
CHARLES EWALD KLEPPER
PETER KUEHN
DAISY PATRICK MIETZSCH
ROLAND EMERSON RANDALL

COLLEGE OF ENGINEERING

Civil Engineer

JOHN ALBERT BROMLEY

Electrical Engineer

BARNWELL RHETT KING
ARTHUR G. PRANGLEY, JR.

Mechanical Engineer

WIRT DRAPER BARTLETT
CARLTON M. COMPHER
CHARLES LEONARD LINHARDT
EDWARD ROANE MELTON, JR.

Bachelor of Science

WALTER S. ATKINSON
JOHN CHESTER BARTO
RAYMOND DOUGLAS BLAKESLEE
JAMES DELMAR BOCK
LAWRENCE JOSEPH BOMBERGER
JULIAN UPTON BOWMAN
WILLIAM LEO BRYAN
CHARLES HOOS CALDWELL
HARRY DALLAS CASHELL
RAYMOND COLBURN
RUDOLPH W. DAUBER
ARTHUR EDWARD DODD
JOHN CLAGETT DUVALL
WILLIAM HORACE ELLIOTT
ROBERT L. EVANS
HENRY CLARK FOX
ROSS K. GESSFORD
THOMAS HARVEY GRAHAM
WILLIAM EDWARD GRIEB
JAY V. HALL
ROBERT ARGRIZOLA HITCH
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RAYMOND FRANKLIN IAGER
CHARLES HERCUS JUST
CHARLES VINTON KOONS
JOHN MEREDITH LEACH
EMMETT TAYLOR LOANE
BENJAMIN MUNROE, JR.
EDWARD ATTILIO PISAPIA
ELMER HEMPEL REHBERGER

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JACK C. VIERKORN
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ALFRED FRANKLIN WEIRICH
ROBERT RANDOLPH WELSH
H. EDWARD WHEELER

COLLEGE OF HOME ECONOMICS

Bachelor of Science

KATHERINE REEME APPLEMAN
MENA RUBINA EDMONDS
PHYLLIS HARBAUGH
ALINE ELIZABETH HERZOG
MARGARET MINA MCMINIMY
ALVERTA PEARL MILLER

SCHOOL OF LAW

Bachelor of Laws

CLINTON WRIGHT ALBRECHT
ELLIS LAZARUS ARENSON
MAX LAWRENCE BERMAN
DAVID WILLIAM BIEN
JACOB BLUM
WILLIAM DANIEL BOLLINGER
THOMAS C. BROWN
ROBERT CHAMBERS
SIDNEY CHAYT
GEORGE COBB
PHILLIP COHN
EUGENE MAXIMILLIAN COROZZA
LEWIS DANZIGER
IRVIN DAVISON
JOHN MARTIN DEPONAI
CONWAY COWAN DILLINGHAM
JAMES LUBY DOYLE
JOHN OSWALD DUMLER
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S. SYLVAN FARBER
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MAVIS ALTHEA GOLDRING

* Degrees conferred after June, 1929.

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CASPER JOHN GROSS
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DANIEL HEYWARD HAMILTON, JR.
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MILTON GLICK HORWITZ
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MEYER LIBAUER
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CHARLES CLINTON LYONS
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HERMAN MILLER
HENRY M. MILLHOUSER
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NATHAN POSNER
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WILLIAM A. RENZI
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WALTER SAMUELSON
JOHN ANDREW SANDERS
MARTIN WILLIAM SEABOLT
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MORTIMER M. SLATKIN
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OSCAR WILLIAM ZENITZ

SCHOOL OF MEDICINE

Doctor of Medicine

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SILVIO A. ALESSI
HUGH AMOS
WALTER ANDERS ANDERSON
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SAMUEL BARLAND, JR.
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MORRIS FRANKLIN BIRELY
HENRY D. BONGIORNO

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Selig L. Brauer
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William Christian
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Herman Cohen
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Jacob Harry Conn
Joseph N. Corsello
W. Paul Dailey
Willard F. Daniels
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William Bateman Draper
Meyer David Farbman
William Russell Fargo
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David Givner
Edwin Foster Gouldman
Sascha Facchetti Guiglia
John James Haney
Leroy Savin Heck
Samuel Thomas Helms
Frank Jackson Holroyd
Morris Horowitz
Samuel Harley Husted
Rafael Angel Vilar e Isern
Murray Elliot Jackson
Abraham Jacobs
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Ernest Levi
Walter Howard Levy
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Israel Peter Meranski
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Isidore Irving Neistadt
Finley F. Neuman
Saul Charles Newman
Emanuel Harrison Nickman
Lewis Marvin Overton
Samuel Joseph Penchansky
Maurice Coleman Porterfield
Benjamin Prager
Paul Arlington Reeder
John Vincent Reilly
Eldred Roberts
Jacob Victor Safer
Henry Towne Safford, Jr.
Morris B. Schreiber
Saul Schwartzbach
Jacob M. Seibel
Raymond Andrew Joseph Sekerak
Lawrence M. Serra
Albert Edward Sikorsky
Mabel Irene Silver
Albert Alexander Soifer
Milton L. Solomon
Wilbur Glenn Speicher
Ernest Spencer, Jr.
Oliver Walter Spurrier
Leon R. Staton
Charles Calvert Stevenson
William J. Sullivan
Morris Tannenbaum
Charles Vivian Taylor
Henry Franz Ullrich
H. King Vann
Tom F. Vestal
Lee Joseph Volenick
Charles Albert Wallack
Hugh Walter Ward
Zack James Waters
Aaron Weiss
Albert Russell Wilkerson
George Herschel Yeager
William Yudkoff

SCHOOL OF NURSING

Graduate in Nursing

Eva Mae Bradburn
Gertrude Nelson Conner
Mildred M. Coulter
Grace Eleanor Dick
Grace Mae Emmert
Edna Alyce Esterly
Freda Gertrude Fazenbaker
Lida Jane Fite
Margaret Milton Fox
Christina Baird Gillies
Hattie G. Goodman
Daisymae Hastings
Evelyn C. Haddox
Corinne Bennett Miller
Edith Eugenia Morgan
Gertrude C. McLaughlin
Milbrey Catherine Neikirk
Margaret Nelson
Martha Rebecca Pifer
Mildred Nancy Ranking
Emma Elizabeth Roth
Mildred Mae Shipley
Vesta Lillian Swartz
Grace Liden Thawley
Dena Virginia Valaco
Alberta Lillian Victor
Larue Koontz Wetzel
Hilda Dale Willis
Kathryn Elizabeth Wright
Ruth Anna Young
Evelyn Byrd Zapf

SCHOOL OF PHARMACY

Graduate in Pharmacy

Abraham Albert Abelson
Max S. Ansell
Joseph Baylus
Samuel Becker
Roberto A. Benedetti
William Bernhardt
Michael Block
Hilliard Brickman
Paul Elliott Carliner
Isador M. Cohen
Joseph Cohen
Gustav Edward Cwalina
Justin Deal
Frederick Becker Eason
Morris J. Eisman
Jerome Fineman
Alfred Jefferson Gawthrop
William Joseph Gildea
Benjamin H. Ginsburg
Julius Gluck
Albert Goldstein
Harry Lee Greenberg
Jacob H. Greenfeld
Daniel Greif
Julius Greif
Donald Cooper Grove
Isaac Gutman
Morris Benjamin Hack
Gustav Highstein
Casimer Thaddeus Ichniowski
Corinne Harriet Jacobs
Sigmund Kaplan
LeRoy F. Kappelman
David Karlinsky
Maurice Karpa
Stanley Louis Kaufman
Isaac Kerpelman
Charles Kramer
Frieda Ruth Kroopnick
Louis J. Kurland
Hymen Louis Kurtzwile
Samuel Frank Lazzaro
Solomon Leboff
Morris Levin
Sam Barry Levin
Theodore Levin
Abraham M. Levy
Alvin E. Liptz
Hugh Bernard McNally
Wallace Henry Malinoski

GEORGE RAYMOND MEETH
LEWIS MILLER
ALFRED K. MORGAN
RITA FRANCES O'CONNOR
LOUIS EDWARD PASCO
ERNEST HERRING PEARRELL
JACOB POLLEKOFF
HARVEY G. POLTILOVE
STEPHEN J. PROVENZA
LEROY DOWLING REICHERT
BERTRAN S. ROBERTS
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MILTON BERNARD ROSENBERG
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*BENJAMIN SAGER
JACOB J. SAPPERSTEIN
SAMUEL SCHAPIRO
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PAUL SCHONFELD
PAUL M. SCHWARTZ
IRWIN ISRAEL SEALFON
M. MARTIN SETTLER
PAUL SILVERMAN
SYLVAN BERNARD SILVERMAN
ISIDORE E. SINGER
LOUIS BERNARD SLUSKY
CHARLES EDGAR SPIGELMIRE, JR.
MILTON R. STEIN
IRENE URSULA SZCZEPKOWSKI
RAYMOND MARWIN THEODORE
SAMUEL WEISMAN
SAMUEL SIDNEY YAFFE
MAX MORTON ZERVITZ

Bachelor of Science in Pharmacy

FRANK PICHA CHRIST
SAMUEL W. GOLDSTEIN
*ABRAHAM LESSER
VINCENT CHARLES LEVICKA
*L. LAVAN MANCHEY
JOSEPH MILLETT
EMANUEL V. SHULMAN

MEDALS, PRIZES AND HONORS, 1929

Elected Members of Phi Kappa Phi, Honorary Fraternity

HERBERT NELSON BUDLONG
GILES BUCKNER COOKE
RUDOLPH W. DAUBER
ELEANOR PARKER FREENY
GEORGE HAINES
ALINE ELIZABETH HERZOG
EMILY CATHERINE HERZOG
NORMA MARIE KAHNEY
CHARLES VINTON KOONS
ROSE ALICE LAUGHLIN
JOHN MEREDITH LEACH
JOSEPH CONRAD LONG
FRANCES JAYNE MAISCH
MARGARET MINA MCMINIMY
ALVERTA PEARL MILLER
ANDREW J. MOYER
CATHERINE AUDREY RYON
ROSS VERNON SMITH
KENNETH GORDEN STONER
RALPH CHARLES VANALLEN
PHILIP WERTHEIMER

Citizenship Medal, offered by Mr. H. C. Byrd, Class of 1908

FRED BUFFINGTON LINTON

Citizenship Prize, offered by Mrs. Albert F. Woods

EMILY CATHERINE HERZOG

---

* Degrees conferred after June, 1929.

Athletic Medal, offered by the Class of 1908

GORDON ALBERT KESSLER

Maryland Ring, offered by Charles L. Linhardt

OMAR D. CROTHERS, JR.

Goddard Medal, offered by Mrs. Annie K. Goddard James

EDGAR HAIGHT SWICK

Sigma Phi Sigma Freshman Medal

GEORGE FELTHAM OPENSHAW

Alpha Zeta Agricultural Freshman Medal

MARY MEIGS INGERSOLL

Dinah Berman Memorial Medal, offered by Benjamin Berman

JOHN R. M. BURGER, JR.

Women's Senior Honor Society Cup

FRANCES JAYNE MAISCH

Alumni Medal for Excellence in Debate

HERBERT O. EBY

The Diamondback Medals

JOHN EDMUND SCHUELER, JR.
J. DONALD KIEFFER
CLEMENCIA ANN GAUSE
WALTER GELSTON MCNEIL, JR.

The Reveille Medals

WILLIAM JAMES KINNAMON
MADISON EMORY LLOYD
GENEVIEVE GRACE WRIGHT

"President's Cup," for Excellence in Debate, offered by Dr. H. J. Patterson

POE LITERARY SOCIETY

"Governor's Drill Cup," offered by his Excellency, Honorable Albert C. Ritchie, Governor of Maryland

COMPANY D—COMMANDED BY CAPTAIN HAROLD L. KREIDER

Military Faculty Award

CADET LIEUT. COL. FRED B. LINTON

Military Medal, offered by the Class of 1899

CADET EDMUND G. WHITEHEAD

Washington Chapter Alumni Military Cup

FIRST PLATOON, COMPANY E—COMMANDED BY LIEUTENANT MILTON MONROE PRICE

Inter-Collegiate Third Corps Area Rifle Silver Medal
WILLIS T. FRAZIER

Inter-Collegiate Third Corps Area Rifle Bronze Medal
FREDERICK H. MARSHALL

University of Maryland Prize (Saber), to the best company commander
CADET CAPTAIN HAROLD L. KREIDER

WAR DEPARTMENT AWARDS OF COMMISSIONS AS SECOND LIEUTENANTS IN THE INFANTRY RESERVE CORPS

JAMES DELMAR BOCK
R. DUNCAN CLARK
BENJAMIN DYER
RICHARD J. EPPLE
ARTHUR A. FROEHLICH
WILLIAM LEATHERBURY HOPKINS
THOMAS A. HUGHES
WARREN BRITTON HUGHES
CHARLES VINTON KOONS
HAROLD L. KREIDER
JOHN MEREDITH LEACH
FRANK A. LESCHINSKY
FRED BUFFINGTON LINTON
HARRY CLARENCE ORT
JOHN BERNARD PARSONS
EDWARD ATTILIO PISAPIA
WALTER PRESTON PLUMLEY, JR.
MILTON MONROE PRICE
WILLIAM IRVINE RUSSELL
EDWARD ALLEN SHEPHERD
RALPH CHARLES VANALLEN
ALFRED FRANKLIN WEIRICH
PHILIP WERTHEIMER
H. EDWARD WHEELER
JOHN ARTHUR WONDRACK

HONORABLE MENTION

College of Agriculture

First Honors—JOSEPH CONRAD LONG, RALPH BERNARD NESTLER

Second Honors—WILLIAM CECIL COOPER

College of Arts and Sciences

First Honors—ROSE ALICE LAUGHLIN, NORMA MARIE KAHNEY, OLYURE MILDRED HAMMACK, MARGARET ELAINE TEMPLE, H. ROSS BLACK, JR., PHILIP WERTHEIMER, HERBERT NELSON BUDLONG, RUTH BARNARD

Second Honors—CLEMENCIA ANN GAUSE, GEORGE CARLTON OLAND, HARRY ALLEN TEITELBAUM, PHYLLIS WALZ KRESS, EDITH FRANCES BURNSIDE, FRED BUFFINGTON LINTON, EDNA MAY BURNSIDE

College of Education

First Honors—MARY ELIZABETH MURRAY, FRANCES JAYNE MAISCH, EMILY CATHERINE HERZOG, MARY COOK ROGERS

Second Honors—NELLIE RINE KOOKEN, MARCIA ELIZABETH PIERCE, J. ORVILLE KEFAUVER, CATHERINE AUDREY RYON

College of Engineering

First Honors—RUDOLPH W. DAUBER, CHARLES VINTON KOONS, RALPH CHARLES VAN ALLEN, JOHN MEREDITH LEACH

Second Honors—ROBERT L. EVANS, BENJAMIN MUNROE, JR., THOMAS HARVEY GRAHAM, RAYMOND DOUGLAS BLAKESLEE

College of Home Economics

First Honors—MARGARET MINA MCMINIMY

School of Dentistry

University Gold Medal for Scholarship
SAMUEL WILSON SHAFFER

Honorable Mention

MARK EDWIN BOWERS
MAX SANDBERG
THEODORE ALFRED RICHTER
FLOYD P. H. MOORE
FRANK E. STAMP

School of Law

Prize of $100.00 for the Highest Average Grade for the Entire Course
CHARLES JOSHUA STINCHCOMB

Prize of $100.00 for the Most Meritorious Thesis
ROBERT CHAMBERS

Alumni Prize of $50.00 for best argument in Honor Case in the Practice Court
MARTIN WILLIAM SEABOLT

GEORGE O. BLOME prizes to representatives on Honor Case in the Practice Court

MARTIN WILLIAM SEABOLT
WILLIAM ALBERT MENCHINE
JOHN THEODORE JOHNSON
DANIEL HEYWARD HAMILTON, JR.

School of Medicine

University Prize—Gold Medal
DAVID TENNER

CERTIFICATES OF HONOR

LAWRENCE MARIO SERRA
OLIVER WALTER SPURRIER
SAMUEL THOMAS HELMS
PAUL HENRY COHEN
MAURICE COLEMAN PORTERFIELD

The Dr. Jose L. Hirsch Memorial Prize of $50.00 for the Best Work in Pathology During the Second and Third Years
WILLIAM RUSSELL FARGO

The Dr. Leo Karlinsky Memorial Scholarship for the Highest Standing in the Freshman Class
HERBERT BERGER

The Dr. A. Bradley Gaither Memorial Prize of $25.00 for the best work in Genito-Urinary Surgery during the Senior year

ZACK JAMES WATERS

School of Nursing

The University of Maryland Nurses' Alumnae Association Scholarship to Pursue a Course in Administration, Supervisory, or Public Health Work at Teachers College, Columbia, to the Student Having the Highest Record in Scholarship

VESTA LILLIAN SWARTZ

The Elizabeth Collins Lee Prize of $50.00 to the Student Having the Second Highest Average in Scholarship

MARTHA REBECCA PIFER

The Mrs. John L. Whitehurst Prize of $25.00 for the Highest Average in Executive Ability

VESTA LILLIAN SWARTZ

The Edwin and Leander M. Zimmerman Prize of $50.00 for Practical Nursing and for Displaying the Greatest Interest and Sympathy for the Patients

VESTA LILLIAN SWARTZ

The University of Maryland Nurses Alumnae Association Pin, and Membership in the Association, for Practical Nursing and Executive Ability

GRACE ELEANOR DICK

School of Pharmacy

Gold Medal for General Excellence

WILLIAM PHILIP ROBERTS

The William Simon Memorial Prize for Proficiency in Practical Chemistry

CASIMER THADDEUS ICHNIOWSKI

The Charles Caspari, Jr., Memorial Prize ($50.00)

THEODORE LEVIN

Research Scholarship of the Alumni Association ($100.00)

ABRAHAM D. LESSER

CERTIFICATES OF HONOR

CASIMER THADDEUS ICHNIOWSKI

GUSTAV EDWARD CWALINA — WALLACE HENRY MALINOSKI

REGIMENTAL ORGANIZATION R. O. T. C. UNIT, 1929-30

WILLIAM J. KINNAMON, Lieutenant Colonel, Commanding
JOHN T. O'NEILL, Captain, Regimental Adjutant

1st Battalion

FOSTER E. LIPPHARD, Major, Commanding

COMPANY "A"	COMPANY "B"	COMPANY "C"
	Captains	
Eugene J. Roberts, Commanding	James D. DeMarr, Commanding	W. Edward Siddall, Commanding
	First Lieutenants	
Richard A. Burr	John N. Umbarger	Graef W. Buehm

2nd Battalion

WILLIAM W. HEINTZ, Major, Commanding

COMPANY "D"	COMPANY "E"	COMPANY "F"
	Captains	
Melvin E. Koons, Commanding	Philip A. Insley, Commanding	J. Donald Nevius, Commanding
	First Lieutenants	
Robert W. Lockridge	William L. Lucas	Luther Harper

CADET BAND

Band under direction of Master Sergeant Otto Siebeneichen, The Army Band, Washington Barracks, Washington, D. C.

NON-COMMISSIONED OFFICERS

1st Battalion

COMPANY "A"	COMPANY "B"	COMPANY "C"
	First Sergeants	
George R. Hargis	D. S. Miller	L. R. Chiswell
	Platoon Sergeants	
G. L. Munson	C. E. Grohs	J. R. Troth
	Sergeants	
J. L. Bischoff	George Chertkof	F. H. Marshall
Walter Bonnett	M. H. Derr	C. H. Hoffman
	C. C. Willis	P. W. Carman

2nd Battalion

COMPANY "D"	COMPANY "E"	COMPANY "F"
	First Sergeants	
W. E. Roberts	J. D. Caldara	R. B. Gossom
	Platoon Sergeants	
Willis T. Frazier	R. C. Horne	H. J. Whiting
	Sergeants	
D. A. Rosenfeld	E. C. Seaton	A. R. Unger
J. H. Mitton	T. A. Mowatt	H. S. Rhind
		B. F. Cox

STUDENT BAND

Corporal

H. W. Cooper

REGISTER OF STUDENTS, 1929-30

COLLEGE OF AGRICULTURE

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Dean, Charles T., Ridgely
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Gahan, James B., Berwyn
Grey, Charles G., Washington, D. C.
Groshon, Lloyd E., Graceham
Gruver, Evangeline T., Hyattsville
Hemming, E. Sam, Easton
Higgins, Wilfred E., Bethesda
Hoopes, Herbert R., Bel Air
Langeluttig, Ira L., Baltimore
Lillie, Rupert B., Washington, D. C.
Madigan, George F., Washington, D. C.
Marth, Paul C., Easton
McKeever, William G., Kensington
Pennington, Norman E., Kennedyville
Ramsburg, Morris M., Frederick
Randall, William A., Washington, D. C.
Remsburg, Robert K., Middletown
Ribnitzki, Frederick W., Washington, D. C.
Sanders, W. Lawrence, Havre de Grace
Schreiber, Arthur H., Chevy Chase, D. C.
Spicknall, Norval H., Hyattsville
Teeter, William R., Elkton
Van Williams, Viron, Baltimore
Weiss, Theodore B., North Bergen, N. J.

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Anderson, William H., College Park
Baker, Kenneth W., LeGore
Bewley, John P., Berwyn
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Blaisdell, Dorothy J., Washington, D. C.
Clark, Otway L., Ellicott City
Coddington, James W., Friendsville
Cox, B. Franklin, Takoma Park
Cramer, Herbert S., Walkersville
de la Torre, Carlos, Baltimore
Downey, Lawrence E., Williamsport
Etienne, Wolcott L., Berwyn
Frazier, Willis T., Washington, D. C.
Gray, Harry E., Riverdale
Henry, D. Russell, Lewistown
Holter, D. Vernon, Middletown
Holter, S. Harley, Middletown
Kline, Donald L., Washington, D. C.
Linder, Paul J., Washington, D. C.
Long, Henry F., Hagerstown
Marshall, Fred H., Washington, D. C.
Martin, Arthur F., Smithsburg
McFadden, Elihu C., Port Deposit
McPhatter, Delray B., Berwyn
Miller, G. Austin, Middletown
Naill, Wilmer H., Taneytown
Parks, J. R., Sparks
Pryor, Robert L., Lantz
Robinson, Harold B., Silver Spring
Royer, Samuel T., Sabillasville
Szetoo, Joseph R., Baltimore
Ward, James R., Gaithersburg
Ward, John H., Crisfield
Willis, Colonel C., New Market
Woods, Mark W., Berwyn
Wren, Jean M., Harrisburg, Pa.

SOPHOMORE CLASS

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Byrd, George C., College Park
Carliss, Ernest A., Windber, Pa.
Coblentz, Manville E., Middletown
Cowgill, John B., Glendale
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Duley, Thomas C., Croome Station
Duncan, John M., Washington, D. C.
Eby, James W., Sabillasville
Eiler, Charles M., Union Bridge
England, Ralph L., Rising Sun
Evans, Willard P., Jr., Pocomoke
Geary, Howard W., Baltimore
Gilbert, Engel L. R., Frostburg
Gilbert, Irwin H., Frostburg
Gough, Thomas L., Laurel
Hanna, William M., White Hall
Ingersoll, Mary M., Chestertown
Kindleberger, Elton L., New Windsor
Kricker, William M., Sparrow's Point
Lines, William F., Kensington
Mantilla, Jorge O., Quito, Ecuador, S. A.
Moore, Daniel S., Bishop
Reichel, Charles P., Washington, D. C.
Smith, Max A., Myersville
Stier, Howard L., Chestertown
Umstead, Russell A., Dawsonville
Walton, M. Margaret, Hyattsville
Wooden, Robert B., Reisterstown

FRESHMAN CLASS

Ady, Irvin D., Sharon
Beall, Wilbur T., Silver Spring
Beardsley, Erwin P., Washington, D. C.
Belfield, William S., Merion, Pa.
Biggs, Willoughby H., Mt. Lake Park
Bishop, Joseph T., Carmichael
Blacud, Carlos, Brooklyn, N. Y.
Burdette, Roger F., Mount Airy
Burton, John F., Golden Hill
Carpenter, George A., Newburg
Carter, G. Russell, Pocomoke
Clay, John W., College Park
Cole, George L., Washington, D. C.
Connelly, George E., Rising Sun
Dean, John P., Ridgely
Ensor, John W., Sparks
Ericson, Ruth O., Riverdale
Eyler, Lloyd R., Thurmont
Faith, Charles A., Hancock
Fishpaw, Raymond R., Berryville, Va.
Fountain, Ernest H., Washington, D. C.
Getty, Frederick S., Silver Spring
Gienger, Guy W., Hancock
Gordy, Nicholas G., Rhodesdale
Gorman, Kerman, Washington, D. C.
Gudelsky, Homer, Overlea
Hanna, Martin J., Baltimore
Hauver, William E., Myersville
Havlick, Bernard H., Secretary
Hutchins, Kenneth J., Bowens
Ifert, Lee F., Middletown
Lappen, Walter H., Haddon Heights, N. J.
Lenderking, Charles E., Baltimore
Lewis, C. Maurice, Lantz
Littleford, Robert A., Washington, D. C.
Lung, Paul H., Smithsburg
Maxwell, Robert A., Marriottsville
McCann, Wilbur E., Baltimore
Mercer, Joseph E. Ellicott City
Pettit, Elmer M., Hyattsville
Powell, George, Jr., Princess Anne
Prince, Norman E., Towson
Rice, William L., Washington, D. C.
Richardson, Howard D., Willards
Schroyer, Maurice J., Middletown
Spessard, R. Kenneth, Smithsburg
Spicknall, William L., Hyattsville
Stevenson, James W., Pocomoke City
Sutton, Marion P., Kennedyville
Tinsley, Selden L., Washington, D. C.
Walton, William R., Hyattsville
Warner, Gardiner L., Baltimore
Welty, David, Jr., Smithsburg
Wintermoyer, Charles F., Hagerstown
Yedinak, Alex, Chesapeake City

TWO-YEAR AGRICULTURAL CLASS

Aubry, Luis A., Lima, Peru, S. A.
Corl, Elbert, Alexandria, Va.

UNCLASSIFIED

Brand, Vance, Urbana, O.
Newton, Thomas A., College Park
Weirich, Bertha O., Hyattsville
Wester, Robert E., Washington, D. C.

COLLEGE OF ARTS AND SCIENCES

SENIOR CLASS

Barnsley, Catherine D., Rockville
Benner, James H., Washington, D. C.
Boyer, Roswell R., Baltimore
Bradley, William G., Hyattsville
Bullard, Marian P., Riverdale
Bush, John M., Hampstead
Carmichael, Elizabeth L., Riverdale
Chaffinch, William P., Easton
Claflin, Marguerite A., College Park
Clark, R. Duncan, Chevy Chase
Cobey, William W., Quincy, Fla.
Colosimo, Vincent J., Frostburg
Conk, Robert H., Long Branch, N. J.
Dean, H. Albert, Frederick
Evans, William W., Chevy Chase
Everstine, Carl N., Cumberland
Ewald, August L., Jr., Baltimore
Fishkin, Samuel W., Linden, N. J.
Fooks, S. Virginia, Preston
Friedman, Hyman P., Brooklyn, N. Y.
Gardiner, John L., Berwyn
Gordon, Edythe Eckenrode, Washington, D. C.
Gordon, Samuel, Washington, D. C.
Haines, Ernest V., Washington, D. C.
Hale, Walker A., Washington, D. C.
Harris, Walter G., Washington, D. C.
Hays, Ruth C., Washington, D. C.
Heagy, Albert B., Washington, D. C.
Healy, Robert F., Glyndon
Heintz, William W., Washington, D. C.
Herstein, Max H., Newark, N. J.
Hetzel, Fred., Cumberland
Hopkins, William L., Baltimore
Hughes, Richard C., Washington, D. C.
Hughes, Warren B., Washington, D. C.

Insley, Philip A., Cambridge
Janetzke, Nicholas A., Baltimore
Jerardi, Joseph V., Baltimore
Jones, M. Elizabeth S., Olney
Kalmbach, Virginia M., Washington, D. C.
Kaplan, Henry J., Spring Valley, N. Y.
Kieffer, J. Donald, Baltimore
Kinnamon, William J., Easton
Koldewey, A. H., Catonsville
Koons, Melvin E., Washington, D. C.
Lawless, Ruth C., Washington, D. C.
Linzey, Urban T., Jr., Towson
Lucas, William L., Baltimore
McCandlish, Robert J., Hancock
McDonald, John E., Alexandria, Va.
McLeod, Florence C., Alexandria, Va.
Meigs, Margaret, Bethesda
Mister, Fulton T., Baltimore
Myers, Alfred T., Riverdale
Myers, Thomas E., Washington, D. C.
Myers, W. Gibbs, Washington, D. C.
Nevius, J. Donald, College Park
Nowell, William P., Washington, D. C.
Orton, Alice L., Washington, D. C.
Page, William T., Jr., Chevy Chase
Powers, Jerrold V., Hyattsville
Purdy, John B. S., Washington, D. C.
Radice, Julius J., Washington, D. C.
Ridout, Evalyn, S., Annapolis
Roberts, George H., Washington, D. C.
Robertson, John V., Ridgewood, N. J.
Rosenbaum, Irving H., Newburgh, N. Y.
Rosenbaum, William T., Brooklyn, N. Y.
Sangston, Howard E., Washington, D. C.
Schilling, Barbara, Cumberland
Schley, Claire P., Shepherdstown, W. Va.
Schultz, Joseph R., Upperco
Settle, Robert T., Baltimore
Shoemaker, Norman I., Point Pleasant, N. J.
Simmons, B. Stanley, Washington, D. C.
Snodgrass, Annie L., Norton, Va.
Stimpson, Edwin G., Washington, D. C.
Thorne, Walter A., Riverdale
Troxell, Harry S., Northampton, Pa.
Umbarger, John N., Bel Air
Valliant, Edwin S., Centreville
Voris, Lucy R., Laurel
Warcholy, Nicholas P., Passaic, N. J.
Ward, David J., Jr., Salisbury
Ward, J. Russell, Paris
White, Richard M., Hyattsville
Whiteley, Millard S., Preston
Williams, Loris E., Takoma Park, D. C.
Wilson, Harry N., Ingleside
Wilson, James S., Washington, D. C.
Winnemore, Lawrence P., Chevy Chase
Wisner, Margaret, Takoma Park
Wright, Genevieve G., Chevy Chase

JUNIOR CLASS

Allen, John P., Baltimore
Ambrose, Paul M., Ligonier, Pa.
Andrews, James E., Cambridge
Batson, John T., Chevy Chase
Beall, Robert W., Bethesda
Beauchamp, Frank P., Baltimore
Beck, W. O., Havre de Grace
Berenstein, Stanley H., Baltimore
Bernard, Madeline M., Washington, D. C.
Bischoff, John L., Washington, D. C.
Blenard, David C., Hagerstown
Bowers, Arthur D., Hagerstown
Brouillet, George H., Holyoke, Mass.
Bundick, Victoria A., Stockton
Bunker, Lillian E., Philadelphia, Pa.
Burgtorf, George E., Baltimore
Burhans, William H., Hagerstown
Butz, Harry P., Washington, D. C.
Caldara, Joseph D., Mt. Savage
Carman, Perry W., Baltimore
Carrico, Rudolf A., Bryantown
Chertkof, George, Baltimore
Chideckel, Morton, Baltimore
Chisholm, Mary E., Garrett Park
Chiswell, Lawrence R., Washington, D. C.
Clagett, Reverdy J., Washington, D. C.
Connell, Walter, West Grove, Pa.
Coroso, Louis F., Hartford, Conn.
Cosimano, Joseph M., Washington, D. C.
Covington, William W., St. Michaels
Crentz, William L., Washington, D. C.
Dixon, Darius M., Oakland
Duckman, Simon, Brooklyn, N. Y.
Dyott, J. S., Easton
Eisenberg, Emilie C., Lonaconing
Eisenstark, Julius, Brooklyn, N. Y.
Epstein, Bennie F., Centreville
Fetty, Howard T., Laurel
Fruchtbaum, Robert P., Newark, N. J.
Garreth, Ralph, Philadephia, Pa.
Gaylor, Robert, Branchville
Gelman, Sidney, Paterson, N. J.
Glass, Maryvee, Clarendon, Va.
Goldstein, Albert, Baltimore
Gomborov, A. David, Baltimore
Gwynn, Rosser Lee, Berkley, Va.
Haller, Franklin M., Brandywine
Hamer, Squire E., Westernport

Harlan, Edwin, Baltimore
Hartge, William P., Galesville
Hasson, George B., Perryville
Hatfield, M. Rankin, Washington, D. C.
Havell, Robert B., Washington, D. C.
Hendlich, Milton, Ridgewood, N. J.
Hendrickson, George O., Jr., Frederick Junction
Hess, Harry C., Jr., Baltimore
Hoffman, Candler H., Hyattsville
Hunt, Josiah A., Berwyn
Jones, Elgar S., Olney
Jones, Wilbur A., Pittsville
Kelly, James P., Towson
Kohn, Marian A., Williamsport, Pa.
Koons, Mary E., College Park
Ladson, Jack A., Olney
Leaman, Granville M., Brunswick
Lemer, Samuel T., Newark, N. J.
Leof, Leonard G., Elkins Park, Pa.
Leyking, William H., Washington, D. C.
Lung, Clarence W., Smithsburg
Magruder, Lorraine Y., Hagerstown
May, Marian L., Hyattsville
McIntire, Carl O., Oakland
Medley, Walter C., Mt. Rainier
Milburn, Harry E., Kensington
Mims, Elizabeth B., Washington, D. C.
Mitchell, Warren C., Washington, D. C.
Nachlas, Bernard, Baltimore
Needle, Harry K., Baltimore
Neidhardt, John W., Baltimore
Norwood, Hayden E., Washington, D. C.
Oberlin, Robert C., Ridgewood, N. J.
Oglesby, S. C., Girdletree
O'Hare, George J., Hyattsville
Parker, Henry W., Berlin
Reedy, Robert J., Washington, D. C.
Riehl, Louis M., Lansdowne
Roberts, Richard, R., Hyattsville
Rosenberg, Harold W., New York, N. Y.
Rosenfeld, David A., Washington, D. C.
Ross, Charles R., Hyattsville
Rude, Gilbert B., Washington, D. C.
Savage, John W., Rockville
Schramm, Harry B., Cumberland
Scott, William H., Ocean City
Seaton, Edwin C., Washington, D. C.
Shank, Mark B., Middletown
Shapiro, Julius A., Washington, D. C.
Siddall, W. E., Washington, D. C.
Siegel, Benjamin I., Baltimore
Silverman, Sidney, Brooklyn, N. Y.
Sklar, Isidore A., Baltimore
Smith, William B., Salisbury
Spencer, Oscar L., Washington, D. C.
Spitznagle, Vernon E., Fruitland
Stevens, Edward C., Washington, D. C.
Strully, Joseph G., Bronx, N. Y.
Sugar, Samuel J., North Beach
Sullivan, Vance R., Baltimore
Tawney, Chester W., Havre de Grace
Trask, Ethel L., Baltimore
Troth, James R., Chevy Chase
Truitt, May H. Salisbury
Unger, Arley R., Hancock
Veitch, Fletcher P., College Park
Vieweg, George L., Wheeling, W. Va.
Waghelstein, Julius M., Baltimore
Warfel, Robert W., Harve de Grace
Welch, James E., Galena
Wells, David E., Gaithersburg
Whiting, Henry J., Washington, D. C.
Wilson, William K., Chevy Chase
Wittig, Elizabeth B., College Park
Wolf, Anne E., Hyattsville

SOPHOMORE CLASS

Ackerman, William B., Washington, D. C.
Aiello, Umbert S., Hyattsville
Albrittain, John W., La Plata
Aldridge, William F., Mount Savage
Allen, John D., Groton, Mass.
Alonso, Miguel, Palmer, Porto Rico
Applefeld, Irving, Baltimore
Bachman, Irving, Baltimore
Baldwin, Frank G., Jr., New Haven, Conn.
Beachley, Edwin L., Manassas, Va.
Berger, Louis W., Rosslyn, Va.
Blechman, Raphael, Mt. Vernon, N. Y.
Bowen, James E., Stoakley
Brooks, James T., Washington, D. C.
Brower, Edmund D., Lutherville
Brown, Ronald F., Washington, D. C.
Busbey, Ridgaway J., Laurel
Caminita, Lucifer L., Scranton, Pa.
Cannon, Minna R., Takoma Park
Castleman, Eli A., Baltimore
Cissel, C. Wilbur, Washington, D. C.
Clagett, Mary H., Williamsport
Clayton, Harry K., Mt. Rainier
Cochran, Richard K., Silver Springs
Cohen, Bernard S., Baltimore
Cohen, Morris M., Hyattsville
Coon, Paul L., Takoma Park
Cooper, Jules, Atlantic City, N. J.
Coplin, George J., Elizabeth, N. J.
Crandall, Bowen S., Chevy Chase
Cronin, Norman P., Aberdeen
Curtin, Elmer P., Dundalk

David, Harry W., Baltimore
Davis, Thomas G., Frostburg
Dezendorf, May, Washington, D. C.
Diggs, Ruth E., Catonsville
Disharoon, Robert E., Nanticoke
Doerr, John D., Washington, D. C.
Doukas, Louis A., Towson
Dressel, George L. A., Mt. Rainier
Dudley, Irma R., Washington, D. C.
Duvall, Harry M., Landover
Ebaugh, Frank C., Jr., Washington, D. C.
Eberle, Marian, Hyattsville
Eby, Herbert O., Washington, D. C.
Engel, Roy D., Washington, D. C.
Falkenstine, Harriett Klinefelter, Baltimore
Fall, Milton S., Jr., Washington, D. C.
Feeser, DeWitt H., Chevy Chase
Ferguson, Harry F., Baltimore
Fisher, William T., Frederick
Flook, Meredith A., Burkittsville
Fouts, Charles W., Washington, D. C.
Frankel, Nathan, East Orange, N. J.
Freeman, Irving, Baltimore
Friedman, Sidney, Bronx, N. Y.
Gardner, Donald J. H. State Sanatorium
Goldinher, Herman, Newark, N. J.
Greely, James C., Jr., Gloucester, Mass.
Hammerlund, Don F., Washington, D. C.
Hammersley, William L., Jr., College Park
Harper, Alan J., Baltimore
Harrison, Ernest I., Laurel
Hauver, Arthur L., Middletown
Hayden, Albert C., Washington, D. C.
Helfgott, Aaron H., Baltimore
Hemp, John A., Burkittsville
Herring, Margaret T., Hyattsville
Hersberger, Arthur B., Barnesville
Hisle, John W., Washington, D. C.
Hoffman, M. Virginia, Hyattsville
Hyson, Harry C., Hampstead
Invernizzi, Fred W., Baltimore
Irey, Richard B., Takoma Park, D. C.
Jones, Thomas E., Cambridge
Kaplan, Abner, Williamsport
Kaplan, Maurice A., Baltimore
Karasik, Abe S., Baltimore
Karpel, Saul, Bronx, N. Y.
Kelly, Roger M., Towson
Kight, Arnold C., Cumberland
Kingsbury, James T., Jersey City, N. J.
Kirby, John J., Washington, D. C.
Knobloch, Jay E., Dundalk
Knowles, Edwin F., East Orange, N. J.
Krajcovic, Jesse J., Dundalk
Krasausky, John W., Baltimore
Krout, Russell I., Cockeysville
Kunkowski, Mitchell F., Baltimore
Levy, Louis S., Washington, D. C.
Lewis, Archie C., Kinston
Luers, Catherine E., Bowie
Luers, Virginia M., Bowie
Luney, William M., Cabin John
Margerum, Eleanor W., Washington, D. C.
May, Charles A., Washington, D. C.
Mays, Howard B., Cockeysville
McCallister, William R., Baltimore
McDonald, Henry B., Alexandria, Va.
McNeill, Willard P., Takoma Park
Mech, Karl F., Baltimore
Meyer, Theodore F., Washington, D. C.
Miller, Herbert L., Elizabeth, N. J.
Miller, Mary M., Grantsville
Morris, Kenneth L., Pylesville
Mudd, Mabel F., Philadelphia, Pa.
Murphy, Maurice J., Washington, D. C.
Neff, Thomas B., Washington, D. C.
Nestor, Kathleen L., Washington, D. C.
Nevius, Laura M., College Park
Nicholson, Morris J., Dundalk
Norris, John C., Baltimore
Openshaw, George F., Washington, D. C.
Owens, Alfred A., Washington, D. C.
Parks, Douglas M., Cockeysville
Pease, Alfred A., Steelton, Pa.
Pergler, Carl, Washington, D. C.
Petty, Mary E., Washington, D. C.
Pierpont, Roger L., Woodlawn
Pugh, Gordon S., Baltimore
Pyles, Charlotte E., Frederick
Reeder, Robert C., North East
Rinehart, Charles W.,Chewsville
Ronkin, Edward, Bronx, N. Y.
Rooney, Thomas O., Washington, D. C.
Rose, Margaret B., Hyattsville
Rosen, Bernard, Baltimore
Rosen, Sol, Bridgeton, N. J.
Rosenstock, Charles, Ellenville, N. Y.
Rosenthal, Victor, Brooklyn, N. Y.
Roth, John C., College Park
Rugge, Marjorie L., Ridgewood, N. J.
Russell, John C., Maddox
Sadowsky, Irving, North East
Savage, John B., Baltimore
Schloss, Jerome, Baltimore
Schmidt, Walter T., Washington, D. C.
Settino, Joseph A., Steelton, Pa.
Shapiro, Sydney H., Passaic, N. J.
Shewbridge, James T., Baltimore
Shoemaker, Maynard P., Jr., Chevy Chase
Shub, Morris, Baltimore
Shure, Ralph G., Takoma Park
Sigelman, Harry P., Watertown, S. Dak.
Silber, Bernard, Baltimore
Smith, Claude H., Manassas, Va.
Stahl, Kenneth Y., Oakland

Steffey, Phoebe, Williamsport
Stein, Benjamin M., Hempstead, N. Y.
Sterling, Ralph T., Crisfield
Stowell, Robert L., Washington, D. C.
Straw, Joseph W., Mt. Airy
Streett, Harry G., Litchfield, Ohio
Teitel, Louis, New York City
Tippett, Edward W., Washington, D. C.
Tobias, George O., Hancock
Toulson, S. Isabelle, Salisbury
Ullrich, James R., Baltimore
Urciolo, Raphael G., Washington, D. C.
Voris, John B., Laurel
Wilcox, Fenton C., Takoma Park, D. C.
Wilhelm, Robert E., Washington, D. C.
Wilk, Laudis A., Whiting, Ind.
Williams, Gethine H., Takoma Park
Williams, Katherine J., Washington, D. C.
Wilson, Norman J., Sparrows Point
Wilson, Robert D., Washington, D. C.
Wood, Charles C., Jr., Elberon, N. J.
Wooden, Virginia J., Hyattsville
Wray, William W., Baltimore
Zimmerman, Gordon K., Washington, D. C.

FRESHMAN CLASS

Adams, Clifford H., Washington, D. C.
Adams, Paul H., Takoma Park
Anderson, Lewis P., Hyattsville
Backus, Langdon B., Brownsville
Baier, John C., Baltimore
Baker, Hayward R., Mt. Rainier
Baker, Lionel D., Midland
Balotin, Louis L., Westport
Bankert, Karl P., Baltimore
Barenburg, Clara, Baltimore
Bates, Marian M., Chevy Chase, D. C.
Benjamin, Albert J., Salisbury
Berger, Manuel, St. Matthews, S. C.
Bixler, Eva C., Capitol Heights
Bogdanow, Morris, Jersey City, N. J.
Boger, William B., Washington, D. C.
Bowie, Harry C., La Plata
Bowie, Henry A., Annapolis Junction
Brainard, Betty H., Garden City, N. Y.
Brennan, Alice M., Washington, D. C.
Bressler, Clark M., Washington, D. C.
Brewer, Charles A., Rockville
Brewer, John B., Rockville
Burka, Irving, Washington, D. C.
Burke, Edmund T., Silver Spring
Butt, Joseph A., Hamilton
Campbell, J. Alan, Hagerstown
Chaney, John C., Washington, D. C.
Clagett, Lansdale G., Upper Marlboro
Clark, Joseph B., Orbisonia, Pa.
Clark, Winifred, Washington, D. C.
Clopper, Robert L., Smithsburg
Cohen, Albert B., Brooklyn, N. Y.
Cohen, Louis, Easton
Cohen, Milton J., Washington, D. C.
Conklin, Ada L., Hyattsville
Connick, Harvey F., Washington, D. C.
Crawford, Catherine, Baltimore
Crowther, Harold E., Laurel
Darby, Joseph N., Sellman
Daugherty, John N., Darlington
Davis, Kenneth, Washington, D. C.
Decker, James S., Frederick
Deehl, Seymour, Elizabeth, N. J.
DeFelice, M. Theodore, Orange, N. J.
Dement, Richard H., Indian Head
deMoll, Theodore O., Washington, D. C.
Devlin, John J., Attleboro, Mass.
Dobbs, Harry C., Hyattsville
Dunbar, William H., Little Valley, N. Y.
Dunning, Robert E., Chevy Chase
Embrey, Kenneth T., Washington, D. C.
Farlow, John H., Berlin
Farrington, Helen, Chevy Chase
Feldman, Jerome, Baltimore
Feldman, Philip, Brooklyn, N. Y.
Fisher, David C., Laurel
Fissel, John E., Jr., Baltimore
Fooks, D. Hance, Snow Hill
French, Charles T., Baltimore
Galotta, Daniel P., Washington, D. C.
Gareis, Louis C., Baltimore
Garrett, Robert A., White Hall
Gesuero, Pasqual V., New Haven, Conn.
Gingell, Loring E., Beltsville
Godfrey, Bertha L., Branchville
Goubeau, Maurice H., Washington, D. C.
Grad, Raymond, Brooklyn, N. Y.
Greenfield, Harold R., Takoma Park
Greenfeld, Sidney, Baltimore
Gregory, Allen E., Seat Pleasant
Gruver, Esdras S., Hyattsville
Hamer, Ralph A., Westernport
Hannigan, Elena, College Park
Hardesty Azalee M., Baltimore
Hardiman, Sannye E., Baltimore
Harry, David G., Pylesville
Hasenbalg, Catherine, Baltimore
Hasslinger, Harry E., Baltimore
Haywood, Norman, Luke
Healy, Ernest A., New London, Conn.
Hebbard, Russell E., Washington, D. C.
Hendrich, Lowell E., Silver Spring
Hendrickson, Dan F., Cumberland
Higgins, Richard W., Washington, D. C.
Hines, Frank B., Chestertown
Hoffman, Louis, Baltimore
Holt, Laurence J., Washington, D. C.

House, Arthur B., College Park
Hudson, Robert F., East Haven, Conn.
Imirie, Donald, Chevy Chase
Jackson, Thomas, Hyattsville
Jacobs, Audrey E., Washington, D. C.
Jarrell, Mary A., Greensboro
Jehli, Ruby C., Mt. Rainier
Jenkins, James H., Frostburg
Johnson, James C., Cambridge
Jones, Elinor I., Prince Frederick
Jones, James F., Norwich, Conn.
Karp, Samuel, Clifton, N. J.
Katz, Lawrence R., Baltimore
Kaufman, Vernon D., Carroll Station
Keenan, Charles T., Windber, Pa.
Keener, Bernard H., Raspeburg
Kelbaugh, Edward T., Govans
Kiernan, Paul F., Washington, D. C.
King, Reese A., Reisterstown
Kluft, Rachel, Washington, D. C.
Knobloch, Howard T., Greensburg, Pa.
Kochman, Martin S., Cumberland
Kohner, Louise, Washington, D. C.
Kolodner, Louis J., Baltimore
Kraft, Edwin M., Carrollton
Lanahan, Doris, Laurel
Landman, Manuel P., Washington, D. C.
Lansford, Wilson A., Bethesda
Laukaitis, Charles A., Waterbury, Conn.
Lavoie, Lionel D., Manchester, N. H.
Levin, Julius, Baltimore
Lewis, Myra E., Takoma Park, D. C.
Linnbaum, William G., Baltimore
Long, J. Robert, Washington, D. C.
Lucas, Joseph N., Washington, D. C.
Lusby, Lucille C., Prince Frederick
Lutes, Mildred E., Silver Spring
Lynch, L. David, Ocean City
Manno, Vincent J., Atlantic City, N. J.
Margareten, Emanuel M., New York, N. Y.
Mason, James M., Chevy Chase
Matzen, Katherine M., Berwyn
Maughlin, James B., Boyd
McDonald, Janet A., Alexandria, Va.
McGann, Theodore, Washington, D. C.
McMillen, Robert N., Kensington
Mickelson, Kate L., Washington, D. C.
Mickelson, Maurice C., Washington, D. C.
Miller, Charles P., Westernport
Miller, John W., Anacostia
Miller, Sidney D., Reisterstown
Miller, Sydney B., Baltimore
Millison, Solomon B., Baltimore
Molenof, Edward I., Washington, D. C.
Mullaney, John E., Cumberland
Mullen, Edward J., Jersey City, N. J.
Mullendore, Ralph E., Hagerstown
Needham, William C. H., Wash., D. C.
Newcomer, Edgar B., Washington, D. C.
Niland, John M., Cumberland
Nordenholz, Fred A., Baltimore
Palmieri, Anthony L., Hamden, Conn.
Park, Louis, Washington, D. C.
Peddicord, Joseph D., Hagerstown
Pemberton, Robert H., Silver Spring
Penn, Thomas H., Glyndon
Pentecoste, Salvador D., Bloomfield, N. J.
Person, Norma R., Brooklyn, N. Y.
Petty, G. Kent, Washington, D. C.
Pitts, Robert R., Washington, D. C.
Plumley, J. Lawrence, Takoma Park
Poppelman, Raymond J., San Fernando, Calif.
Powers, Laurence J., Frostburg
Pruitt, James B., Washington, D. C.
Pue, Michael E., Frederick
Randolph, John N., Washington, D. C.
Rauzer, James W., Thurmont
Remsburg, LeRoy K., Middletown
Reuling, Leonard R., Baltimore
Reynolds, John B., Mt. Savage
Reynolds, R. Selena, North East
Richardson, Harry M., Shenandoah, Iowa
Riley, A. Jack, Washington, D. C.
Rill, Woodrow W., Hampstead
Roberts, Fred H., Cumberland
Roberts, Jack A., Berwyn
Robertson, James C., Jr., Baltimore
Rochlin, Narcisse, Baltimore
Rombach, Dorothy S., Colgate
Sagle, Eugene S. G., Laurel
Sanford, Joseph N., Washington, D. C.
Schafer, Margaret E., Baltimore
Scherr, Milton S., Richmond Hill, N. Y.
Scheuerman, Harry D. P., Jr., Baltimore
Schmidt, Raymond C., Seymour, Conn.
Schultheis, William L., Baltimore
Scott, John W., Jr., Elkton
Seidner, Edward, Belmar, N. J.
Semoff, Milton C. F., Union City, N. J.
Shaffer, Donald A., College Park
Shapiro, Morris, Baltimore
Simpson, Dorothy E., Chevy Chase
Small, Jeffrey M., Hyattsville
Smaltz, Ann E., Washington, D. C.
Smith, Leonard M., Hyattsville
Somers, Robert G., Crisfield
Spates, George E., Rockville.
Spicknall, Charles G., Hyattsville
Spire, Richard H., Washington, D. C.
Stakem, John J., Cumberland
Statman, Bernhardt J., Newark, N. J.
Steinwedel, Lois M., Baltimore
Stelzer, Frederick C., Jr., Washington, D. C.
Stern, Morris H., Clifton, N. J.

Stieber, Frederich N., Towson
Stratmann, George H., Sparrows Point
Sugar, Florence S., North Beach
Sugrue, Bernard A., Washington, D. C.
Taterka, Adrian, Grantwood, N. J.
Temple, Robert G., Riverdale
Thompson, Lorene D., Washington, D. C.
Toombs, Alfred G. L., Washington, D. C.
Townsend, Paul E., Hebron
Tranen, Sam, Washington, D. C.
Trueworthy, Burnett T., Washington, D. C.
Venemann, Robert M., Riverdale
Venezky, Bernard S., Hyattsville
Vignau, John, Washington, D. C.
Voshall, Donald H., Washington, D. C.
Wackerman, John D., Riverdale
Weingartner, Ademar G., Beltsville
Weinman, Sidney, Baltimore
Weitzman, Jacob, Washington, D. C.
Welch, Harmon C., Cumberland
Welch, Robert G., Galena
Welsh, Thomas H., Hyattsville
Wertheimer, Richard F., Cumberland
White, Ralph A., Laurel
Williams, Ralph I., Washington, D. C.
Williamson, Thomas E., Cumberland
Wingate, Victor M., Wingate
Wolf, Irvin O., Baltimore
Woods, Albert W., Kansas City, Mo.
Yocum, Edmund F., Baltimore
Young, Genevieve K., Washington, D. C.
Yourtee, John A., Brownsville
Zabel, Doris M., Washington, D. C.
Zirckel, John H., Baltimore

UNCLASSIFIED

Ryan, Neal D., Baltimore
Smith, Katharine D., College Park

SCHOOL OF DENTISTRY

SENIOR CLASS

Braunstein, Benjamin, Passaic, N. J.
Buday, Albert, Bridgeport, Conn.
Burns, James Francis Ryar, Trenton, N. J.
Chanaud, Norman Pierre, Union City, N. J.
Cook, Edward Russell, Childs
Eastwood, Walter Joseph, Woodcliff, N. J.
Gerstein, Irwin, Brooklyn, N. Y.
Glickman, Morrell Gene, Brooklyn, N. Y.
Harlacher, Anthony John, Progress, Pa.
Hrostoski, Julius John, Garden City, N. Y.
Hulit, Elon Addison, Ocean Grove, N. J.
Lapow, Albert, Newark, N. J.
Leggett, Laurence Lionel, Uhrichsville, Ohio
McAloose, Carl, McAdoo, Pa.
McNerney, Francis Joseph, Williamsport, Pa.
Maguire, John Francis, Atlantic City, N. J.
Messore, Michael Benedict, Providence, R. I.
Miller, Julius, Bayonne, N. J.
Mogilowsky, Solomon, Brooklyn, N. Y.
Nelson, Hilbert Andrew, Freeport, N. Y.
Noll, John Byron, New Haven, Conn.
Pierce, Carl Rock, Norfolk, Va.
Reiss, Sam, Brooklyn, N. Y.
Schein, Irving, Newark, N. J.
Schwartz, Philip, Newark, N. J.
Sheinblatt, Joseph, Elizabeth, N. J.
Shupp, Isaac Hamilton, Hagerstown
Slattery, George Benjamin, Montclair, N. J.
Smith, James Winston, Lincolnton, N. C.
Sobol, Edward Aaron, Hartford, Conn.
Spitzen, Percival, Elizabeth, N. J.
Wilkerson, George Earl, Baltimore
Wilson, James William, Mount Airy
Wolf, John Washington, Carlisle, Pa.
Zameski, Theodore Martin, Baltimore

JUNIOR CLASS

Aldrey, Jorge, San Juan, Porto Rico
Barnes, Edwin Clark, Woodbury, N. J.
Beyer, Joseph Francis, W. Orange, N. J.
Buchbinder, Milton, Bayonne, N. J.
Carbone, James Francis, Hoboken, N. J.
Cline, Reginald William, Hartford, Conn.
Cohen, Jacob Reuben, Bayonne, N. J.
Corvino, Joseph, Bayonne, N. J.
Cross, John Douglas, Baltimore
Cummings, Owen Vincent, Torrington, Conn.
Curry, Christian Landis, Harrisburg, Pa
Dillon, Charles Somerville, Jamaica, B. W. I.
Drumheller, Wallace Griffiths, Lansford, Pa.
Durso, James Arnone, Bayonne, N. J.
Edwards, Douglas Arthur, Belford, N. J.

Eskin, Albert Carl, Newark, N. J.
Fetter, Luther Werner, Schaefferstown, Pa.
Forndrotto, Frank Sam, Long Branch, N. J.
Friedman, Max Benjamin, Hartford, Conn.
Gilfoyle, Alex Edward, Cortland, N. Y.
Gunther, Edgar, Fort Howard
Hahn, William E., Westminster
Hamilton, Lloyd, Baltimore
Icaza, Carlos, Nicaragua, C. A.
Kiker, Russell Paul, Baltimore
Kohn, Arthur Arnold, Bayonne, N. J.
Lankford, Allan Morris, Pocomoke City
Laureska, Anthony Peter, Scranton, Pa.
LaVallee, Raymond Edward, Burlington, Vt.
Leichter, Samuel Findling, Orange, N. J.
Levin, Jacob, Bayonne, N. J.
Lewis, Gordon Alexander, Hagerstown
Lyons, Harry Witherell, Newton, Upper Falls, Mass.
McHugh, John Thomas, Scranton, Pa.
Margeson, Clarence Elmer, Jr., Clarksburg, West Va.
Margolies, Herbert, Brooklyn, N. Y.
Markley, Harry Knox, Warfordsburg, Pa.
Miller, John William, Martinsburg, W. Va.
Minahan, Walter Richard, Sparrows Point
Nirenberg, Max, Larchmont, N. Y.
Nuttall, Ernest Brodey, Sharptown
Peddie, Fred, Irvington, N. J.
Reese, Edgar Billingsley, Fairview, W. Va.
Rostov, Henry E., Baltimore
Santillo, Joseph Salvatore, Newark, N. J.
Saunders, Clarence Ervin, Florence, S. C.
Shapiro, Emanuel, Newark, N. J.
Smyth, Frederick Francis, Quincy, Mass.
Snyder, Elwood Stanley, West Orange, N. J.
Solomon, George Henry, New York, N. Y.
Tew, Jasper Jerome, Dunn, N. C.
Tracy, Harold Joseph, Jersey City, N. J.
Wasilko, J. Dan, Lansford, Pa.
Winner, Harry James, Baltimore
Wojnarowski, L. Edward, Ansonia, Conn.
Zukovsky, Julius M., Passaic, N. J.

PRE-JUNIOR CLASS

Abramson, Isadore, Baltimore
Applegate, Charles Robert, South River, N. J.
Ball, Edward Jenkinson, Paterson, N. J.
Bamdas, Sam, Newark, N. J.
Basch, Carl, Lakewood, N. J.
Beamer, Charles S., Cumberland
Berman, Nathan, Jersey City, N. J.
Bessette, Edgar Leo, Providence, R. I.
Black, John Aloysius, Paterson, N. J.
Boxer, Joseph, Newark, N. J.
Breslow, Isadore Irving, Perth Amboy, N. J.
Broadrup, Charles Easterday, Frederick
Bryant, Samuel Hollinger, Chester, Pa.
Chandler, Thomas Shirley, Cape Charles, Va.
Cheney, Leon Austin, St. Auburn, Me.
Coleman, John William, Jersey City, N. J.
Corrigan, John Dennis, New Bedford, Mass.
Crapanzano, Mark, New Haven, Conn.
Dern, Carroll Duttera, Taneytown
Doneson, George Jules, Perth Amboy, N. J.
Edmonds, Henry Jeter, Kilmarnock, Va.
Emory, Russell Jump, Centreville
Englander, Jesse Julius, Bridgeport, Conn.
Farrington, Donald Wilson, Chelmsford, Mass.
Feldblum, Joseph, Chicora, Pa.
Fern, Arthur Louis, Hartford, Conn.
Frankel, Nathan N., Asbury Park, N. J.
Garrett, Raymond Daniel, Waynesboro, Pa.
Gitlin, Joseph Donald, New London, Conn.
Goodkin, Ben, Passaic, N. J.
Graves, Raymond John, New Haven, Conn.
Grosshans, George Thomas, Bridgeport, Conn.
Hayes, Arthur John, Newark, N. J.
Hergert, Carl Adam, Wilkes-Barre, Pa.
Hill, Edwin Eugene, Elbridge, N. Y.
Hills, Merrill Clarke, Hartford, Conn.
Hogan, William J., Jr., Hartford, Conn.
Jennings, Ernest Miller, Hartford, Conn.
Johnston, Hammond Lee, Baltimore
Jones, Ward B., Forest City, Pa.
Kania, Joseph Stanley, New Britain, Conn.
Kaplan, Irving, Bayonne, N. J.
Kendrick, Vaiden Blankenship, Charlotte, N. C.
Kendrick, Zebulon Vance, Jr., Charlotte, N. C.
Kershaw, Arthur James, Jr., West Warwick, R. I.
Linder, Norman Simpson, Bayonne, N. J.
Lott, Harland Winfield, Forest City, Pa.
MacKenzie, Hector MacDonald, Charlottetown, Prince Edward Island, Canada
Madden, James Elmore, New Market, Va.
Maldonado Miguel Leon, Ponce, Porto Rico
Manuel, Joseph Robert, Jr., Baltimore
Michael, John Hayward, Roanoke, Va.
Milliken, Lyman Francis, Annapolis

Morgan, Tonnie Garmore, Pineville, W. Va.
Muir, Francis, Jr., Arlington N. J.
Nadal, Alfredo M., Mayaguez, Porto Rico
Newman, Irving, Union City, N. J.
Oliva, Angelo Raymond, Newark, N. J.
Prather, Richard Bain, Clear Spring
Reid, Harry Mitchell, Lisbon Falls, Maine
Richardson, David Horn, Halethorpe
Rosen, Ben Louis, Baltimore
Rosenbloom, Reuben, Passaic, N. J.
Sidle, Abraham Frank, Glen Burnie
Steigelman, Jay Monroe, Barnitz, Pa.
Theodore, Alfred Edgar, Baltimore
Thrall, Ralph Botsford, New Britain, Conn.
Vajcovec Joseph Louis, Webster, Mass.
Vezina, George Onesime, Woonsocket, R. I.
Weitzel, Henry Marcus, Carlisle, Pa.
Wickes, Joseph Salyards, New Market, Va.
Wiggins, Albert William, Glenwood Landing, N. Y.
Wilson, Roy McCown, Raphine, Va.

SOPHOMORE CLASS

Bailey, Richard Anson, Orange, Conn.
Barclay, Robert Stark, Dry Run, Pa.
Barile, George Michael, Hoboken, N. J.
Bisnovich, Samuel Sidney, Waterbury, Conn.
Block, Philip Leonard, Baltimore
Bloomenfeld, Julius, Bronx, N. Y.
Boote, Howard Sherry, Bel Air
Bowers, Malcolm Baker, Wellfleet, Mass.
Brener, Herman, Asbury Park, N. J.
Britowich, Arthur A., Newark, N. J.
Broadbeck, George Allan, Baltimore
Brotman, Abe, Newark, N. J.
Brown, Morris Edgar, Catawba, West Va.
Brownell, Dudley C., Pulaski, N. Y.
Butler, Frank Kenneth, Worcester, Mass.
Chesterfield, Wallace Burton, Newburgh, N. Y.
Clark, William Gilbert, Elizabeth, N. J.
Clayton, Paul Ramon, Lansdale, Pa.
Cook, Albert Cope, Frostburg
Duryea, David Henry, Hawthorne, N. J.
Eichman, Peter Wynn, Waterbury, Conn.
Eskow, Jack Meyer, Perth Amboy, N. J.
Flory, Arlington Ditto, Thurmont
Fruchtbaum, David Pearson, Newark, N. J.
Gaebl, William Louis, Cumberland
Garmansky, Harry Jay, Asbury Park, N. J.
Gillman, Charles, Newark, N. J.
Ginsburg, Aaron Albert, Lakewood, N. J.
Goe, Reed T., Baltimore
Goldiner, Morton Joseph, Baltimore
Goldstein, Lewis, Perth Amboy, N. J.
Gordon, Ralph Jack, Baltimore
Gorsuch, Charles Bernard, Baltimore
Gothers, John Leonard, Hartford, Conn.
Guida, Frank Joseph, Elizabeth, N. J.
Gurvitz, Robert Herbert, Newark, N. J.
Hall, Henry Herbert, Annapolis
Hamilton, Bruce Putnam, Northborough, Mass.
Heaton, Charles Earle, Providence, R. I.
Helfmann, Nathaniel Leonidas, Newark, N. J.
Hoffman, Emanuel, Baltimore
Holter, Paul Wilson, Baltimore
Homel, Samuel, Baltimore
Horchowsky, Leon Leonard, New Haven, Conn.
Hoy, John Alfred, Shippensburg, Pa.
Hunt, Robert Nathaniel, Lexington, N. C.
Icaza, Jorge, Nicaragua, Central America
Iuliano, Frank Jerry, Newark, N. J.
Jaen, Erasmo, Nicaragua, Central America
Janowitz, Aaron Jack, Glen Rock, N. J.
Kirschner, William Henry, West Haven, Conn.
Kocis, Joseph Steven, Garfield, N. J.
Kowalski, Walter Joseph, Mocanaqua, Pa.
Krasnow, George, Jersey City, N. J.
Kroser, Philip Ralph, Newark, N. J.
Kwan, Amy, Hok Wan, Tientsin, China
Leary, Edgar Thomas, Wilmington, Del.
Levine, Alexander, Weehawken, N. J.
Liddy, Martin A., Morristown, N. J.
Lora, Edward James, Union City, N. J.
McDermott, William Joseph, Pawtucket, R. I.
McGuire, Richard Francis, New Haven, Conn.
McKay, Warren, Hackensack, N. J.
Mansell, Howard, Maplewood, N. J.
Markowitz, Louis Joseph, New York, N. Y.
Moore, Filbert LeRoy, Baltimore
Nathan, Morris Harry, Hartford, Conn.
Nelson, Leo, Spring Valley, N. Y.
Nussbaum, Milton, Newark, N. J.
Omenn, Edward, Wilmington, Del.
Paquette, Normand Jean, New Bedford, Mass.
Piche, Theodore Lionel, Burlington, Vt.
Piombino, Joseph, Jr., Glen Ridge, N. J.
Reed, Allen John, Lorraine, N. Y.
Rodgers, Clarence John, Baltimore
Rosenberg, William Edwin, Weehawken, N. J.
Rubin, Joseph, New York, N. Y.
Sandford, Russell Charles, Rutherford, N. J.

Schindler, Samuel Edward, Hagerstown
Schreiber, Jerome Eugene, Newark, N. J.
Schwartz, Cliff, Newark, N. J.
Schwarzkopf, Anton James, Miami Beach, Fla.
Seligman, Leon, Northfork, West Va.
Shulman, Joseph, Weehawken, N. J.
Somarriba, Roberto, Nicaragua, Central America
Steinfeld, Irving, Newark, N. J.
Stramski, Alphonse, Danvers, Mass.
Tocher, Robert John, Seymour, Conn.
Todd, Merwin Armel, Jr., Beach Haven, N. J.
Toubman, Joseph William, Hartford, Conn.
Trax, Frederick Hiram, Warren, Pa.
Turnamian, Levon Charles, Woodcliff, N. J.
Waldman, Harold Francis, Bridgeport, Conn.
Wheeler, Arthur S., Baltimore
Wheeler, George Edmund, Port Jefferson, N. Y.
Wick, Mahlon Newton, Woodbury, N. J.
Willer, David Herbert, Wilmington, Del.
Wise, Joseph Coley, Lewes, Del.
Wolfe, Milton, New York, N. Y.

FRESHMAN CLASS

Alt, Louis Paul, Norristown, Pa.
Biddix, Joseph Calton, Baltimore
Bimestefer, Lawrence William, Colgate
Bisese, Pasquel John, Roanoke, Va.
Bloom, Theodore, Newark, N. J.
Boice, Robert Armstrong, Jr., Norfolk, Va.
Boyle, Bernard Joseph, Wilkes-Barre, Pa.
Broad, Ronald Arthur, Worcester, Mass.
Brown, William Elliott, Neptune, N. J.
Browning, Douglas Arthur, Baltimore
Burns, Donald, Newton Centre, Mass.
Burroughs, Charles Elson, East Orange, N. J.
Caplan, Sylvan, Baltimore
Chippendale, Frank David, Fall River, Mass.
Cofrancesco, Richard Ernest, Waterbury, Conn.
Corthouts, James Leopold, Hartford, Conn.
Denbo, Nathan, Camden, N. J.
Diamond, Leo Lloyd, Long Branch, N. J.
Diani, Anthony John, Clifton, N. J.
Diaz, Ernest Davila, Ponce de Leon, Porto Rico
Donovan, Joseph Patrick, Hartford, Conn.
Everhart, David Groff, Jr., Frederick
Feinstein, Percy, Elizabeth, N. J.
Ferrace, Ralph Gerald, Newark, N. J.
Forastieri, Ramon Sixto, Caguas, Porto Rico
Gillespie, Raymond William, New Haven, Conn.
Glick, Abraham, Elizabeth, N. J.
Gorenberg, Philip, Jersey City, N. J.
Gotthelf, Meyer, Baltimore
Guth, Aaron, Perth Amboy, N. J.
Hahn, Vincent Andrew, McMechen, West Va.
Hamer, Alfred Ernest, Fairhaven, Mass.
Harmatz, Irving, Baltimore
Heefner, Allen, Waynesboro, Pa.
Hirshorn, Abraham, Camden, N. J.
Homlet, Leola Ruth, Hamilton
Huang, Gertrude Chun Yen, Tientsin, China
Ihnat, John Edward, Carteret, N. J.
Imbach, William Andrew, Jr., Baltimore
Josephson, Arthur, Newport, R. I.
Joule, William Robert, Arlington, N. J.
Kayne, Benjamin, Lakewood, N. J.
Kurtz, George, Paterson, N. J.
Kwiecien, Walter Howard, Bloomfield, N. J.
LeBourveau, Reed, White River Junction, Vt.
Levine, William Milton, New Haven, Conn.
Levinson, Isadore, Baltimore
Lilien, Bernard, Newark, N. J.
McLean, Peter Anthony, Trinidad, B. W. I.
Madison, Hyman, Passaic, N. J.
Martin, Ernest Lee, Jr., Leaksville, N. C.
Martini, Joseph, Passaic, N. J.
Mazza, Michael Fred, Long Branch, N. J.
Mimeles, Meyer, Newark, N. J.
Moore, Clarence Jackson, Fairmont, West Va.
Newman, Herbert Paul, Union City, N. J.
Ordansky, George Eugene, New Haven, Conn.
Ostro, Boris, Philadelphia, Pa.
Pargot, Aaron, Perth Amboy, N. J.
Richardson, Alexander Liles, Leaksville, N. C.
Roberts, Edmund Percy, Roselle, N. J.
Robinson, Frederick Logan, Baltimore
Rockoff, Samuel, Bridgeport, Conn.
Romano, Victor Michael, Bridgeport, Conn.
Rosati, Andrew Benjamin, Trenton, N. J.
Ross, Jean Davis, Arlington, N. J.
Russell, Oneal Franklin, Eastport
Rzasa, Stanley Anthony, Chicopee, Mass.
Salkin, Norman, Baltimore

Schunick, William, Baltimore
Shpritz, Silvert Arthur, Baltimore
Snider, Hansel Hedrick, Keyser, West Va.
Sober, Louis, Baltimore
Soule, Louis Henry, Riderwood
Stephenson, Shaw Thel, Benson, N. C.
Sullivan, William Francis, Windsor Locks, Conn.
Taubkin, Milton Louis, Union City, N. J.
Taylor, Howard Greenwood, Frederick
Thomas, Marvin Richard, Slatington, Pa.
Trager, Jesse, Baltimore
Turner, Arnold Frederick, Baltimore
Weisbrod, Samuel John, Brooklyn, N. Y.
Woodall, DeWitt Creech, Benson, N. C.
Wycalek, Theodore Leon, Newark, N. J.
Yablon, Abraham, Catherine, N. J.
Yerich, Jack, Newark, N. J.

COLLEGE OF EDUCATION

SENIOR CLASS

Algire, George W., Hampstead
Ballou, Evelyn F., Washington, D. C.
Bean, Robert C., Washington, D. C.
Bewick, Isabel D., Cumberland
Brower, Margaret E., Washington, D. C.
Chesser, Carolyn S., Pocomoke
Dawson, Hazel L., Cumberland
Dunnigan, M. Regis, Washington, D. C.
Everson, Emma M., Cleveland, Ohio
Gingell, Helen V., Berwyn
Hannon, Loretto, Frostburg
Harrison, Roberta, Washington, D. C.
Hartenstein, Helena J., New Freedom, Pa.
Howard, Roberta D., Hyattsville
Karr, Margaret, Bethesda
Kroll, Wilhelmina D., Washington, D. C.
Lane, Marian, Washington, D. C.
Leighton, Margaret V., Mt. Lake Park
Lowe, Erma L., Pylesville
Lowe, Ora B., Pylesville
Moser, Edward F., Thurmont
Myers, Warren G., Thurmont
Nathanson, Rosalie, Leonardtown
Nelson, Thorman A., Washington, D. C.
Nourse, A. Curry, Dawsonville
Ryon, Elsie E., Waldorf
Taylor, Alice E., Perryville
Townsend, Louise S., Girdletree

JUNIOR CLASS

Baumel, Eleanor N., Royal Oak
Bixler, Evelyn T., Washington, D. C.
Blount, V. Lenore, College Park
Blount, Virginia D., College Park
Bremen, John J., Aberdeen
Bull, Gladys M., Pocomoke City
Caltrider, Samuel P., Westminster
Coker, B. Mildred, Brentwood
Deitz, Leah S., Hyattsville
Derr, Melvin H., Frederick
Dodder, Margaret R., College Park
Finzel, Ruth M., Mt. Savage
French, Doris P., Brentwood
Gall, Mable L., Thurmont
Gray, F. Adelaide, Port Tobacco
Hammack, Jane E., Washington, D. C.
Howard, George C., College Park
Hunt, Robbia, Berwyn
Lawler, Sydney T., Washington, D. C.
McGarvey, Margaret D., Washington, D. C.
Miller, Charley B., Accident
Nowell, Margaret L., Shady Side
Payne, Stella E., Hyattsville
Robertson, Marinda L., Hyattsville
Rowe, Norma, Brentwood
Scholl, Audrea L., Washington, D. C.
Simmonds, Lois C., New York, N. Y.
Smith, Virginia, Hyattsville
Snyder, Dorothy L., Berwyn
Spicknall, Florence L., Hyattsville
Spoerlein, Harley H., Accident
Wade, Margaret E., Port Tobacco
Wilson, Walter S., Highland

SOPHOMORE CLASS

Arnold, Julia C., Brentwood
Arrel, Margaret R., Towson
Aspinall, Dorothy L., Frostburg
Babcock, Louise G., Washington, D. C.
Barrett, Marion L., Washington, D. C.
Beeman, Donald R., Hyattsville
Bishop, Doris R., Washington, D. C.
Bowling, Mary B., Newport
Burslem, William A., Hyattsville
Cannon, Harry T., Baltimore
Chalmers, George V., New Castle, Del.
Clemson, Charlotte B., Baltimore
Colborn, Wilmae H., Princess Anne
Cooke, Virginia B., Washington, D. C.
Daiker, Barbara V., Washington, D. C.
DeBoy, Dora F., Solomons

Faber, S. Parker, Washington, D. C.
Ferrier, Myra V., Hyattsville
Glynn, Maurice J., Lonaconing
Greenwood, Ruth E., Washington, D. C.
Hatton, Rhoda K., Washington, D. C.
Hickox, Alma, Washington, D. C.
House, James H., Flintstone
Jones, Hilda, College Park
Klein, Vera L., Frederick
Lederer, Dorothy L., Riverside
McCubbin, Frances R., Jewell
Miller, Charles, Baltimore
Miller, Thomas L., Baltimore
Norton, Elizabeth W., Hyattsville
Oldenburg, Grace M., Hyattsville
Rabbitt, Warren E., Washington, D. C.
Santinie, Maria A., Burtonsville
Schwartz, Henry, Newark, N. J.
Stanforth, Elsie V., Mt. Rainier
Stinnette, Edith B., Havre de Grace
Stone, Margaret G., Port Tobacco
Stull, Robert B., Frederick
Taylor, Charlotte M., College Park
Travers, W. Wayne, Nanticoke
Van Fossen, Margaret M., Frederick

FRESHMAN CLASS

Brokaw, Sarah K., Rising Sun
Blase, Sam L., Washington, D. C.
Cohen, David J., Seat Pleasant
Cranford, Elizabeth V., Washington, D. C.
Deal, Anna J., Washington, D. C.
Dugan, Ellen, Hyattsville
Gingell, Agnes L., Berwyn
Hersperger, Louise, Poolesville
Holmes, Helen B., Riverdale
Horwitz, George, West New York, N. J.
Howard, Elizabeth E., Hyattsville
Kibler, Charlotte T., Ridgely
Kline, Richard F., Frederick
Leatherbury, Iris B., Shady Side
Lynham, Lucy A., Berwyn
Maxwell, Anabel D., Marriottsville
Medinger, Mary K., Govans
Mitchell, John R., Baltimore
Owen, Mary E., Lanham
Peter, Florence E., Washington, D. C.
Reed, Ruth V., Baltimore
Ricketts, Mary V., Washington, D. C.
Rowe, Florence H., Brentwood
Sellman, Theodore A., Beltsville
Shipley, Dorothy B., Westfield, N. J.
Snyder, Lou C., Washington, D. C.
Sugar, Sarah F., Washington, D. C.
Tyler, Clayton M., Crisfield
Warner, Carroll F., Thurmont
Waters, Robert H., Oriole
Winant, Eleanor M., Mt. Rainier
Wood, William W., Washington, D. C.
Zeiler, N. Singleton, Frederick

UNCLASSIFIED

Beavers, Gertrude W., Cleveland, Ohio
Sasscer, Esther H., Upper Marlboro

EXTENSION TEACHER-TRAINING COURSES (BALTIMORE)

(INDUSTRIAL EDUCATION)

Anderson, Charles R.
Arnold, Edward J.
Askew, Howard D.
Bacharack, Abram F.
Baker, Allena R.
Ball, Harry C.
Balsam, Frank A.
Barany, Charles G.
Baron, Herman L.
Batt, Helen V.
Bell, Raymond E.
Blackiston, James T.
Blake, Margaret D.
Boylan, Edward M.
Boylan, William G.
Brown, Walter A.
Buchman, Thomas W., Jr.
Burkert, Claude A.
Burton, Julia
Caltrider, S. P.
Chelton, Ruth L.
Chernak, Sidney M.
Conary, Olive W.
DeCesare, Nicholas R.
Donelson, Raymond N.
Douglas, Hazen
Emmart, Carey F.
Fenimore, Nelson S.
Finnell, Catherine
Galley, Joseph N.
Gardner, Harry K.
Gilbert, Loren G.
Giles, Marie L.
Gill, Francis

Haefner, William F.
Haffner, Emanuel B.
Hampton, Leonora
Hanna, G. Vernon
Haslup, DeWilton W.
Hedrick, Melvin D.
Healey, William G.
Heimiller, Wm. J. C.
Hensen, Henry L.
Hoffacker, George W.
Hottes, William
Hubbard, Arthur M.
Hucksoll, William J.
Jirsa, Charles
Jolly, William H.
Keczmerski, John F.
Kehm, Marguerite
Krotee, Samuel L.
Kruse, Lillian
Letzer, Joseph H.
Longley, E. LeRoy
Marvel, Florine
McCabe, Leila
Melby, Andrew E.
Merkle, Clifford C.
Messick, Carter D.
Meyers, George A.
Mietzsch, Daisy P.
Miller, Mayfort P.
Mitchell, Frances M.
Myers, William
Nathanson, David
Nice, Elizabeth R.
Nicol, Lindsay
Piller, Anna E.
Pumphrey A. J.
Purnell, Andasia
Pursley, John L.
Raabe, Herbert L.
Ralph, William B.
Randall, Roland E.
Rassa, William J.
Reiter, Charles L.
Reuling, Emilie I.
Robinson, Harry L., Jr.
Rock, Charles V., Jr.
Rohde, Clarence
Schmidt, Martha B.
Scott, Charles E.
Sendelbach, John F.
Smith, Ferdinand C.
Smith, H. E.
Smith, Robert L.
Sweetland, Theodore R.
Tapking, William F.
Townsend, Howard E.
Trout, Lydia LaRue
Volland, Frederick
Walker, D. H.
White, Clinton E. W.
White, Gertrude C.
Wiegman, Elgert L.
Willhide, Paul A.
Williamson, Riley S.
Wilson, Hugh
Winter, Ralph A.
Witthaus, Minnie J.
Wood, William C.
Ziefle, Howard E.

COLORED TEACHERS

Batson, Thomas E.
Berry, Ida L.
Beverly, Sadie B.
Briscoe, Joseph C.
Brown, Alexander
Bryan, Margaret L.
Callis, James A. B.
Callis, Mattie
Callis, Nellie M.
Cary, Charles A.
Chase, Sadie E.
Clark, Lloyd A.
Cope, Thomas C.
Davis, Lee A.
Douglass, Helen F.
Echols, David A.
Evans, Anna V.
Fields, Carroll St. C.
Fisher, Gladys C.
Gatewood, Esther B.
Hall, Edna E.
Hall, Isabella
Harding, George B.
Harris, Elizabeth
Harris, Anne E.
Henry, Antoinette O.
Hill, John O.
Houston, Myrtle P.
Jackson, Julia
Johnson, Carrie A.
Johnson, Jannie M.
Johnson, Tazewell A.
Jones, Reuben F.
Jordan, Catherine
Keys, Alice R.
Kyler, Margaret E.
Kyler, Mary E.
Lancaster, Alonzo
Lansey, L. Agnes
Lewis, Ethel A.

Lockerman, Irving
McDaniels, Cora T.
Moore, Alfred V.
Moore, James E.
Moore, Levi V.
Page, Carlitta J.
Puryear, Mamie B.
Reavis, Newman B.
Reed, Milton B.
Robinson, Florence
Ross, Susie
Saunders, Everett D.
Sewell, Mary N.
Sims, Charles H.
Stokes, Maggie
Taylor, May O.
Thomas, Dessadra M.
Tinnen, Ernest E.
Traynham, Hezekiah E.
Turner, Walter T.
Wallace, Margaret J.
Washington, Howard E.
White, Frances T.
Williams, Leon W.
Wilson, Hallie Q.
Wood, Nellie V.
Woodford, Charles M.
Wright, Roberta G.
Wright, William B.
Wynn, Chandler V.
Wynn, Vernice H.
Young, Nellie F.

COLLEGE OF ENGINEERING

SENIOR CLASS

Ahalt, Chauncey A., Middletown
Bishop, Charles B., Washington, D. C.
Boublitz, Harry D., Baltimore
Buehm, Graef W., Washington, D. C.
Burr, Richard A., Rockville
Cameron, James N., North East
Cerrito, Anthony F., Baltimore
DeMarr, James D., Berwyn
Dodson, Charles R., Takoma Park
Epple, Richard J., Ridgewood, N. J.
Fifer, William H., Galesville
Froehlich, Arthur A., West Palm Beach, Fla.
Gordon, James M., Takoma Park
Harper, Luther M., Cumberland
Hine, Howard H., Baltimore
James, Carroll S., Frederick
Jarvis, Harry A., Berlin
Jarvis, Kendall P., Berlin
Kushner, Paul L., Baltimore
Letvin, Samuel, Washington, D. C.
Lininger, Floyd R., Westernport
Lipphard, Foster E., Washington, D. C.
Lloyd, Madison E., Cockeysville
Lockridge, Robert W., Edmonston
Lombard, Herman, Washington, D. C.
Perham, John E., Hagerstown
Phipps, George T., Washington, D. C.
Price, Milton M., Washington, D. C.
Quinn, Robert F., Washington, D. C.
Roberts, Eugene J., Washington, D. C.
Schofield, William C., Washington, D. C.
Sehorn, Hale F., Washington, D. C.
Stephens, Francis D., Washington, D. C.
Tansill, Roy B., Baltimore
Taylor, Norman L., Salisbury
Vogel, Leonard J., Washington, D. C.
Wallace, James N., Washington, D. C.
Walter, Francis P., Cumberland
Willmuth, Charles A., Kenilworth, D. C.
Wilson, William S., Salisbury

JUNIOR CLASS

Allen, Robert H., Groton, Mass.
Basford, Alvin, Washington, D. C.
Burger, John R. M., Jr., Hagerstown
Cashell, Charles F., Washington, D. C.
Cooper, Philip C., Salisbury
Cowgill, Perry P., Glenndale
Deckman, Joseph H., Bel Air
De la Torre, Mario, Baltimore
Falkenstein, Niles G., Mt. Lake Park
Fisher, William A., Jr., Baltimore
Flory, Maurice P., Harmans
Gifford, William R., Washington, D. C.
Gossom, Richard B., Jr., Haymarket, Va.
Gregory, James A., Washington, D. C.
Grohs, Conrad E., Washington, D. C.
Gue, Edwin M., Germantown
Haas, Robert T., Washington, D. C.
Hargis, George R., Frederick
Henshaw, Lamond F., Silver Spring
Holloway, Francis L., Hebron
Horne, Robert C., Somerset
Jones, R. Bernard, Dickerson
Kibler, Alfred G., Greensboro
Kirby, John F., Anacostia
Kushner, Paul L., Baltimore
Lee, James A., Oakland
Maloney, Ercell L., Washington, D. C.
McClurg, Gregg H., Washington, D. C.

Mitton, John H., Washington, D. C.
Mowatt, Theodore A., College Park
O'Neill, John T., Washington, D. C.
Orwig, Robert H., Jr., Parkton
Pitzer, John W., Cumberland
Rhind, Harold S., Washington, D. C.
Roberts, William E., Washington, D. C.
Seaman, Milton L., Takoma Park
Stabler, Albert, Jr., Spencerville
Suter, J. Courtney, Takoma Park, D. C.
Swick, Edgar H., Capitol Heights
Taylor, George E., Jr., Annapolis
Tinsley, Garland S., Washington, D. C.
Waesche, Douglas A., Sykesville
Wales, Ira L., Jr., Glyndon
Wenger, Frederick J., Jr., Wash., D. C.
Wilcox, Charles F., Chevy Chase
Wildensteiner, Otto, Washington, D. C.
Wilhelm, John M., Washington, D. C.
Williamson, Alfred E., Jr., Laurel
Willse, Edwin M., Hohokus, N. J.

SOPHOMORE CLASS

Ackerman, Carl J., Washington, D. C.
Albaugh, Charles R., Frederick
Allen, James C., College Park
Beall, John R., Washington, D. C.
Bishoff, Theodore, Washington, D. C.
Bogan, Charles W., Washington, D. C.
Bonnet, Walter, Washington, D. C.
Burdick, Walter F., Hyattsville
Burton, Fred C., Cumberland
Chew, William F., Jr., Pikesville
Clift, T. Hofmann, Baltimore
Coe, Gerald B., Silver Hill
Cooper, Herbert W., Washington, D. C.
Crump, Charles F., College Park
Davids, Clifford B., Baltimore
Dent, Walter P., Jr., Baltimore
Diener, Herman M., Washington, D. C.
Dorsey, Daniel R., Baltimore
Eskridge, Hazard S., Baltimore
Ewald, Edward L., Mt. Savage
Fellows, Paul D., Washington, D. C.
Franklin, John M., Oakland
Gary, Fred B., Washington, D. C.
Gibson, Hatcher R., Washington, D. C.
Gifford, Charles H., Washington, D. C.
Goss, Willard L., Lanham
Gotthardt, William H. S., Washington, D. C.
Hale, Jack E., Towson
Hamilton, Joseph, Hyattsville
Harrison, Evelyn, Hyattsville
Hawkins, Stuart F., Washington, D. C.
Higgins, Horace R., Washington, D. C.
Hoke, Henry F., Emmitsburg
Holland, Edward S., Chevy Chase, D. C.
Horton, John, Washington, D. C.
Hunt, Howard C., Frostburg
Jackson, William R., Tilghman
Jones, Lloyd J., Dickerson
Kennedy, Robert L., Washington, D. C.
Kent, Benjamin G., Baltimore
Koelle, Raymond W., Altoona, Pa.
Lake, Archibald M., Jr., Rockville
Lawrence, Frederick V., Woods Hole, Mass.
Leonard, Frederic B., Chevy Chase
Linkins, William H., Washington, D. C.
Loughran, James E., Swissvale, Pa.
Marshall, Thomas C., Washington, D. C.
McGlathery, Samuel E., Jr., Washington, D. C.
McKeldin, William H., Baltimore
McManus, Edward M., Washington, D. C.
Medbery, Aldrich F., Washington, D. C.
Merrick, Charles P., Ingleside
Miller, David S., Washington, D. C.
Miller, Joseph, Washington, D. C.
Munson, Gerald L., Riverdale
Norris, George W., Jr., Annapolis
Perrie, Thomas H., Lothian
Pittaway, Arthur H., Washington, D. C.
Price, John H., Centreville
Reeves, Raymond J., Washington, D. C.
Roome, Henry S., Hyattsville
Rudden, Joseph, Washington, D. C.
Ruhl, George R., Washington, D. C.
Schindler, George E., Watertown, Mass.
Schneider, Louis G., Baltimore
Silverberg, Morton, Washington, D. C.
Snell, Dale F., Washington, D. C.
Stacy, Harry A., Jr., Takoma Park
Sullivan, Arthur L., Jr., Baltimore
Tower, Thurl W., Oakland
Turner, Arthur G., Jr., Takoma Park, D. C.
Velten, John J., Baltimore
Walker, Robert M., Washington, D. C.
Ward, S. Chester, Paris
Watt, Ralph W., Washington, D. C.
Whalin, Charles V., Jr., College Park
Whitehead, Edmund G., Washington, D. C.
Willingmyre, Dan W., III, Berwyn
Young, Tom C., Middleburg, Va.

FRESHMAN CLASS

Adair, John G., Chevy Chase
Adams, J. Loren, Mt. Rainier
Aderholdt, Ashley A., Anacostia, D. C.
Anderson, Warren D., Washington, D. C.
Avery, Edward F., Washington, D. C.
Baker, Joseph D., Hagerstown
Balcerzewski, Bernard W., Baltimore
Baldwin, Richard W., Washington, D. C.
Beer, Louis A., Washington, D. C.
Belt, Norman B., Hyattsville
Berry, Charles H., Landover
Biggs, Howard M., Washington, D. C.
Bixby, Howard M., Washington, D. C.
Bowie, John H., Berwyn
Bowman, Maurice I., Woodbine
Boyer, George W., Damascus
Brandau, Adam G., Baltimore
Briddell, Charles D., Crisfield
Briscoe, Henry C., Hyattsville
Brooks, John C., Chesapeake City
Burns, George W., Havre de Grace
Burroughs, John W., Croom
Busick, James G., Cambridge
Carlson, John L., Annapolis
Coughlin, John M., Washington, D. C.
Dimmette, William A., Washington, D. C.
Dodd, Lawrence J. Salisbury
Doyle, John T., Washington, D. C.
Dye, John C., Washington, D. C.
Eppley, George T., Washington, D. C.
Fish, Lloyd F., Washington, D. C.
Fisher, Harry E., Dundalk
Fisher, John T., Washington, D. C.
Fulford, William T., Baltimore
Gambrill, Arthur P., Hyattsville
Geisenberg, George M., Washington, D. C.
Goss, Lee A., Lanham
Gravatte, Leroy T., Washington, D. C.
Gregory, Carl S., Seat Pleasant
Guilford, E. Robert, Hyattsville
Guill, Sam G., Takoma Park
Hancock, H. Stanley, Dentsville
Harrell, Jerome B., Washington, D. C.
Hellbach, Carl R., Washington, D. C.
Herrell, Everett H., Washington, D. C.
Hockensmith, George L., Washington, D. C.
Hodge, Robert M., Silver Spring
Hopkins, Edward D., Stevensville
Huebsch, John P., Washington, D. C.
Hughes, Carl R., Kensington
Hunt, Kermit A., Berwyn
Iglehart, Malcolm W., Ellicott City
Isemann, Frank E., Washington, D. C.
Kakel, Carroll P., Jr., Towson
Kaufman, Raymond C., Carroll Station
Keeler, William M., Owings Mills
Kelly, E. Dorrance, Takoma Park
Kent, Donald G., Baltimore
Keseling, George L., Baltimore
Kirby, George D., Baltimore
Kitchin, Charles E., Hyattsville
Kreh, Paul V., Silver Spring
Lang, William F., Pocomoke
Lawless, Fred S., Washington, D. C.
Liddell, Stephen R., Liberty Grove
Linger, Roland A., Washington, D. C.
Lloyd, Richard L., Chevy Chase
Lowell, Ralph H., Brentwood
Mathews, Howard H., Cumberland.
Matthews, George H., La Plata
McIlwee, William A., Washington, D. C.
Melvin, Edward L., Baltimore
Momyer, Louis E., East Orange, N. J.
Moore, J. Carlyle, Jr., Riverdale
Mothersead, Charles T., Washington, D. C.
Murdoch, Richard B., Mt. Airy
Norwood, Harold B., Washington, D. C.
Oser, Bernard C., Washington, D. C.
Peed, Roger, Washington, D. C.
Pfau, Carl E., Washington, D. C.
Phillips, Lewis G., Washington, D. C.
Ramsay, Webster, Washington, D. C.
Read, Neil C., Capitol Heights
Reed, Ralph D., Takoma Park, D. C.
Robbins, Jacob W., Cambridge
Roberts, Lawrence M., Baltimore
Rossi, Raymond J., Baltimore
Scott, Robert E., Washington, D. C.
Shinn, Stanley D., Mt. Rainier
Shrewsbury, Edmund P., Upper Marlboro
Smith, William A., Baltimore
Smoot, Arnold W., Seaford, Del.
Starr, William P., Riverdale
Steele, Justus U., Hyattsville
Stevens, Wilber A., Washington, D. C.
Stone, Thomas H., Annapolis
Streett, John W., III, Baltimore
Thomas, William J., III, Ednor
Thorn, Arthur K., Clarksburg, W. Va.
Walter, Joseph E., Cambridge
Wasserman, Nathan, Washington, D. C.
Weber, George O., Washington, D. C.
Weed, Oscar D., Washington, D. C.
West, James A., Anacostia, D. C.
Winchester, William R., Port Deposit
Wood, Tayloe R., Boyds

UNCLASSIFIED

Harvey, Charles W., Bowie

EXTENSION CLASSES IN MINING

BARTON CLASS

Ashby, R. M.
Barnard, W. S.
Beeman, Fred
Beeman, Walter
Bradley, John
Brennan, Edward R.
Casey, John L.
Conroy, T. E.
Crowe, George
Duckworth, Simeon H.
George, W. G.
Griffith, Curtis
Guy, J. P.
Hoffa, Arthur P.
Hughes, John T.
Hyde, Chester A.
Kyle, Reginald
Kyle, Fred
McDonald, K. M.
Miller, Alonso P.
Mobray, Thomas
Robertson, Joseph
Russell, Ellsworth
Symons, Charles
Thomas, Carson
Wallace, John
Williams, W.

BAYARD CLASS

Anthony, John
Best, Richard
Blocker, Ney
Broadwater, Cecil
Custer, J. W.
Custer, Thomas
Fulk, O. B.
Funk, Thurman
Junkins, Ralph C.
Keenan, D. J.
Keenan, P. J.
Miller, Alonzo M.
Morton, R. W.
Mullenix, A. E.
Phares, F. B.
Porter, O. T.
Renn, Ned.
Renn, Roscoe
Roderick, Guy

FINZEL CLASS

Baker, Charles
Baker, Clyde
Baker, Daniel
Baker, Edward
Baker, Henry
Baker, Lester
Bittner, Leonard
Burdock, Marshall
Clark, Arthur
Clark, Daniel
Crowe, Roy E.
Dress, Anthony
Finzel, George
Finzel, John
Larue, Cecil
Mathias, Max
McKenzie, Albert
McKenzie, Edward
McKenzie, Frederick
McKenzie, George
McKenzie, Harold
McKenzie, Hubert
McKenzie, Irvin
McKenzie, Jesse
McKenzie, Thomas
Wagner, Howard
Wagner, Thomas
Warner, Cecil
Werner, Albert
Werner, James
Werner, John
Werner, Nelson

FROSTBURG CLASS

Barnett, Lee
Bean, Maurice
Brown, Charles
Buckalew, W. T.
Byrnes, Bernard D.
Carter, Frank W.
Carter, Robert
Close, James H.
Closimo, Patsy
Davis, Theodore
Donahue, William J.
Edwards, R. L.
Gaskill, John
Glotfelty, Robert
Hartig, Phillip, Jr.
Hayes, C. Walter
Jenkins, Edward
Kenney, Aloysius

Kergan, R. Cecil
Kergan, Robert H.
Krieling, Leslie A.
Laurish, Frank
Meagher, Victor
O'Donnell, John T.
Powell, Ithan
Powers, Clarence J.
Powers, Frank T.
Ralston, M. L.
Rephan, William H.
Seibert, Jacob
Simmons, Thomas
Smouse, John L.
Sparks, Leroy
Stark, Henry
Stevens, Eugene
Taylor, George
Thomas, Philip
Tippen, Walter
Walbert, Chris J.
Watson, Hugh C.
Weisenborn, James A.
Wellings, William, Sr.
Wilson, Herman
Wolfe, Charles P.

MOUNT SAVAGE CLASS

Black, Homer
Blank, John
Blank, Willard
Boore, Norman
Burkhart, Henry
Carter, Edward
Carter, John O.
Deffenbaugh, Albert D.
Deffenbaugh, James
Downton, George M.
Frankenberry, Charles
Green, Howard
Green, Joseph
Heneghan, Bernard J.
Henaghan, John J.
Jenkins, Howard
Jenkins, Joseph
Jenkins, Leroy
Machin, Albert
Martin, Louis
Miller, Henry
Snelson, James E.
Snyder, Marshall
Snyder, William
Stowell, Edward
Walters, Sherman

VINDEX CLASS

Adams, H. J.
Adams, Joseph
Adams, Lester
Arnold, Tyler
Balyard, Asa
Balyard, William
Barrett, Thomas
Beeman, Fred
Beeman, John
Burkholder, Holmes
Carr, W. J.
Clark, James
Comp, Roy
Cunningham, Frank
Darr, W. M.
Davis, Robert S.
Davis, Wesley M.
Ellifritz, C. F.
Ellifritz, H. T.
Fickes, Albert A.
Garlitz, A. I.
Gennoy, Thomas
Grady, Herbert
Grady, O. F.
Harvey, Ervin
Harvey, I. J.
Garlitz, W. L.
Hummell, Frank
Jackson, M. P.
Junkins, Jack
Junkins, Lee
Kania, Charles
Kania, Steve
Kent, Ernest
Kifer, Dan
Kifer, W. K.
Kifer, W. M.
Knox, Howard
Knox, Lawrence
Knox, Russell
Lewis, George W.
Lohr, George
McRobie, Newton
McRobie, Taylor
Nestor, D. W.
Paugh, C. L.
Paugh, Earl
Paugh, Lester
Paugh, Wesley
Pennell, Jack
Pritts, George W., Sr.
Puffenbarger, William
Rhodes, J. A.
Riggelman, Harry

Riggleman, John
Rohrbaugh, John
Rohrbaugh, Raymond
Sharpless, McKinley
Shreve, William
Simms, Herbert
Simms, Noah
Smith, D. J.
Stewart, A. G.
Stewart, William
Tasker, Cassel
Tasker, Osburn W.
Tasker, R. H.
Tichnell, Joseph
Vanmeter, Jesse
Wolfe, Lloyd
Yokum, R. H.

WESTERNPORT CLASS

Beard, Howard
Beavers, George E.
Beavers, Harvey S.
Beavers, Homer
Bevers, Hubert
Blackburn, Howard
Bosley, Charles
Duckworth, Arthur
Elliot, Scot
Elliott, Robert
Ervin, Albert C.
Evans, Morgan
Fazenbaker, C. E.
Fazenbaker, Floyd A.
Fout, David
Fox, E. G.
George, W. E.
Hughes, Frank P.
Jose, William
Kenner, Herman
Knott, E. O.
Mellon, Ben
Mellon, C. M.
Paugh, Charles
Pritts, Adam
Smith, Elmer
Smith, Ulysses
Swann, Thomas P.
Warnick, Clarence
Warnick, John
Wilson, Jacob

KITZMILLER CLASS

Amtower, Olin
Barnes, Ellsworth
Brady, Oscar L.
Burrell, Edward
Burrell, Fitzhugh
Burrell, Wilbur
Campbell, James
Cutchall, W. H.
Davis, Carl
Jones, C. H.
Lichliter, Donald
Lyons, Melvin
Males, William
Marshall, H. A.
McIntire, Claude
McIntire, Howard
McKenzie, Henry D.
Murphy, John
Parrish, George
Paugh, Miles
Paugh, Ora
Paugh, William F.
Patt, Fred
Pritts, Fredlock
Shore, J. A.
Sowers, Roy
Strachn, Thomas
True, Frank
True, W. C.
Walker, Clark
Walker, J. J.

LONACONING CLASS

Alexander, James
Anderson, James H.
Beeman, Walter
Brodie, Andrew S.
Brodie, Robert
Brodie, William P.
Eichorn, Martin J.
Francis, James
Galagher, Thomas
Getson, Charles
Green, Anderson J.
Hadley, Harry J.
Jones, Thomas J.
Kallmyer, Ellsworth
Klipstein, William
Kyle, Fred, Jr.
Laird, D. Clarkson
McCormack, Thomas

Moffatt, Richard
Moore, Stanley
Morgan, Harold
Morton, Joseph
Powers, Thomas, Jr.
Schulte, Frank W.
Shockey, Edward
Sigler, Adam
Smith, Galen
Stevenson, John P.
Thompson, William
Trenum, Edgar
Wagner, James J.

MIDLAND CLASS

Alexander, James
Bampton, Raymond
Beeman, Charles H.
Beeman, Roy
Beets, Earl
Beveridge, Frank
Bugosh, Paul
Buskirk, Frank
Buskirk, Samuel
Cesnick, John J.
Cesnick, Louis
Cesnick, Stephen
Creegan, Patrick J.
Cullen, Henry
Cunningham, James H.
Cuter, Russell W.
Duffy, James
Dunn, James N.
Dye, Herbert
Fair, Frances
Fresh, Foster
Hawkins, Alwyn
Hawkins, Charles
Hawkins, Richard
Hunt, Robert
Hyde, Carson F.
Jenkins, James H.
Kamauf, Emil
Kilduff, Bernard P.
Laslo, John
Leptic, Joseph F.
Lucas, William J.
Long, W. Merle
Martin, William H.
McKee, Wallace
McKinley, George
McMillan, Arch
McMillan, Charles
Merbaugh, Edward
Monahan, John
Muir, Edward
Muir, Gordon
Muir, Hugh
Patterson, Adam
Patterson, Walter T.
Plummer, Thomas
Simpson, Walter H.
Simpson, William J.
Smith, Charles
Sulser, Harry H.
Yuhas, John

GRADUATE SCHOOL

Alexander, Lyle T., Anacostia
Alrich, George F., Washington, D. C.
Abrams, George J., Washington, D. C.
Aldrich, Willard W., Washington, D. C.
Andrews, Marvin J., Baltimore
Appleman, Katharine R., College Park
Bafford, Mena Edmonds, Hyattsville
Baker, Henry H., Columbia, Mo.
Bartram, M. Thomas, Paoli, Pa.
Bauer, John C., Baltimore
Bear, E. Hall, Riverdale
Bekkedahl, Norman, Washington, D. C.
Bellinger, Frederick, Perth Amboy, N. J.
Berry, Myron H., West Chester, Pa.
Besley, Harry E., Cherrydale, Va.
Brackbill, F. Y., Baltimore
Briggs, William P., Washington, D. C.
Brown, Luther B., Silver Spring
Bronitsky, Jack, Brooklyn, N. Y.
Butler, George, Camden, Del.
Cahill, Anne M., Chicago, Ill.
Carmichael, Berton E., Riverdale
Carolus, Robert L., Sterling, Ill.
Carr, Ruth F., Baltimore
Carter, Roscoe H., Washington, D. C.
Chang, Wen Li, Amoy, China
Cochran, Doris M., Hyattsville
Cordner, Howard B., College Park
Cotton, Cornelia M., Bethesda
Crosthwait, Samuel L., Hyattsville
Daiger, W. Hammett, Linthicum Heights
Dando, Llewellyn S., Emporia, Kansas
Degman, Elliott S., White Salmon, Wash.
DeMooy, Elsie M., Washington, D. C.
Ditman, Lewis P., Westminster
Doyle, Aida M., Washington, D. C.
Dozois, Theo. F., Roundup, Mont.
Eaton, Orson N., Hyattsville
Edmond, Joseph B., Saginaw, Mich.
Evans, Frederick H., Washington, D. C.
Evans, Raymond B., Catonsville
Feustel, Irvin C., E. Falls Church, Va.
Figge, Frank H., Silver Cliff, Colo.
Fisher, Paul L., Washington, D. C.
Fitzhugh, Dorothea W., Riverdale
Fitzhugh, Robert T., Riverdale
Fletcher, Lewis A., College Park
Franco, Alcides deO., Rio de Janiero, Brazil
Frey, Paul W., Lancaster, Pa.
Gilbert, Howard W., Frostburg
Godfrey, Albert B., Branchville
Goldstein, S. W., Baltimore
Graham, Castillo, Blodgett, Miss.
Hagberg, I. Josephine, Takoma Park
Haller, Mark H., Washington, D. C.
Hamilton, Arthur B., Darlington
Harley, Clayton P., Wenatchee, Wash.
Harrison, Perry K., Picayune, Miss
Hartman, Paul A., Edgewood Arsenal
Haynes, John M., Baltimore
Henerey, William T., Sedalia, S. C.
Henson, Paul R., McLoud, Okla.
Herculson, John A., Baltimore
Heuberger, John W., Warren, R. I.
Highberger, David P., Greensburg, Pa.
Hoerner, John L., Fort Collins, Colo.
Hoshall, Edward M., Baltimore
Hurley, Ray, Peach Bottom, Pa.
Israelson, Reuben H., Baltimore
Jarman, Gordon N., Edgewood Arsenal
Jones, Minor C. K., Baltimore
Kaveler, Herman H., St. Charles, Mo.
Klaphaak, Mary R., Washington, D. C.
Kline, Gordon M., Hyattsville
Knierim, Carl A., Baltimore
Kuhnle, M. Evelyn, Westernport
LaFetra, Margaret N., Washington, D. C.
Lagasse, Felix S., Newark, Dela.
Lesser, Abraham D., Baltimore
Little, Glenn A., Edgewood Arsenal
Livingston, Samuel, Baltimore
Lloyd, Daniel B., Glenndale
Long, Edgar F., Hyattsville
Long, Joseph C., College Park
Lumsden, David V., Washington, D. C.
Maisch, Frances J., Hagerstown
Malcolm, Wilbur G., Hyattsville
Manchey, L. Lavan, Baltimore
Mattoon, Helen E., Woodstock
Matthews, Amos W., Portsmouth, Va.
McConnell, Harold S., College Park
McCreary, Donald, Mt. Pleasant, Iowa
McMurtrey, James E., Jr., Washington, D. C.
Mecredy, James R., Baltimore
Millett, Joseph, Pen-Mar
Morrison, Harvey A., Takoma Park
Morrison, Vera E., Takoma Park
Munkwitz, Richard C., College Park
Murphy, Eleanor L., Washington, D. C.
Murray, Mary E., Mt. Savage
Musser, Ruth, Baltimore
Nelson, Ole A., Clarendon, Va.
Nystrom, Paul E., Turlock, Calif.
Oland, George C., Olney
Parker, Marion W., Salisbury
Purdy, Daisy I., Gorman, Texas.
Raper, Paul A., Welcome, N. C.
Reitz, Henry C., Springfield, Mo.
Reneger, Cecil A., College Park
Riemenschneider, Roy W., Litchfield, Ill.
Rose, William G., Salt Lake City, Utah

Rudel, Harry W., Metuchen, N. J.
Rutledge, Alma W., Baltimore
Sando, William J., Washington, D. C.
Schicktanz, Sylvester T., Belleville, Ill.
Schueler, John E., Jr., Relay
Schweizer, Mark, Riverdale
Scruton, H. A., Baltimore
Shulman, Emanuel V., Baltimore
Siegler, Edouard H., Takoma Park
Simonds, Florence T., Riverdale
Slama, Frank J., Baltimore
Smith, Paul W., Washington, D. C.
Smith, Thomas B., Bedford, Pa.
Spies, Joseph R., Madison, S. D.
Starrett, Ruth C., Washington, D. C.
Stoner, Kenneth G., Hagerstown
Supplee, William C., Riverdale
Taylor, Theret T., Cumberland
Thomas, William B., Prospect, Ohio
Thompson, Ross C., Washington, D. C.
Weiland, Glenn S., Hagerstown
Weinberger, John H., Zionsville, Pa.
Wellington, Joseph W., Takoma Park
Westfall, Benton B., Buckhannon, W. Va.
Wetherill, John P., Kensington
Wheeler, Donald H., College Park
White, Willis H., College Park
Whitney, F. C., Edgewood
Winterberg, Samuel H., Grantsville
Wittes, Leo A., Elizabeth, N. J.
Wood, Cyrus B., Takoma Park
Zimmerley, Howard H., Norfolk, Va.

COLLEGE OF HOME ECONOMICS

SENIOR CLASS

Bewley, S. Marguerite, Berwyn
Creeger, Margaret P., Thurmont
Dynes, Isabel, Chevy Chase
Freseman, Dorathea S., Baltimore
Harrison, E. Eames, Baltimore
Hicks, Ann E., Fairchance, Pa.
Hoffa, Estelle, Barton
LaMotte, Jane A., Baltimore
Lewis, Maude E., Washington, D. C.
Lunenburg, Lillian I., Washington, D. C.
Maxwell, Grace, Luke
Morgan, Claudine M., Lonaconing
Pressley, Margaret S., Elk Ridge
Rodier, Katherine E., Washington, D. C.

JUNIOR CLASS

Bishopp, Harriett E., College Park
Cook, Margaret E., Washington, D. C.
Cullen, Marjorie V., Delmar, Del.
Gahan, Winifred, Berwyn
Jenkins, Felisa, Washington, D. C.
Kettler, Mildred A., Washington, D. C.
Kirkwood, A. Elizabeth, Baltimore
Lea, Marguerite, Danville, Va.
Lloyd, Miriam, Chevy Chase
McNutt, Agnes E., Crawfordsville, Ind.
McVey, Elizabeth J., Altoona, Pa.
Mead, Helen, College Park
Miles, Ruth L., Washington, D. C.
Oberlin, Gladys M., Silver Spring
Parry, Geraldine, Ridgewood, N. J.
Robertson, Martha A., Gaithersburg
Sargent, Gwendolyn, Washington, D. C
Temple, Martha R., Riverdale
Wasson, Elsie, Baltimore
Webster, Marie E., Randallstown

SOPHOMORE CLASS

Brossman, Mary E., Indianapolis, Ind.
Duvall, Jane S., Landover
Goodhart, Rosalie J., Washington, D. C.
Goss, Esther, Lanham
Howes, Isabel R., Sykesville
Huffington, Sara E., Eden
Kent, Elizabeth, Pylesville
Sargent, Eloyse, Washington, D. C.
Siehler, Kathryn E., Baltimore
Wells, Mary H., Cottage City

FRESHMAN CLASS

Bell, Julia C., Washington, D. C.
Bowie, Alice C., Mitchellville
Burk, Phila B., Alexandria, Va.
Cannon, Bertha E., Seaford, Del.
Claflin, Dorothy A., College Park
Coleman, Wilma, Hyattsville
Cronin, Virginia S., Aberdeen
Drake, Mary F., Washington, D. C.
Gilbert, Ruth L., Washington, D. C.
Hughes, Esther F., Washington, D. C.
Hunt, Ruth A., Berwyn
Kelleter, Helen, Washington, D. C.
Kerr, Marian F., Hyattsville
Lamond, Ethel-Jean W., Takoma Park, D. C.
Lane, Dorothy T., Washington, D. C.
Miller, Clare B., Purcellville, Va.
Miller, Evelyn F., Westernport
Morsell, M. Eleanor, Bowens
Mowatt, Marjorie R., College Park
Reed, Rosa L., Washington, D. C.
Seipt, Isabelle, Sparrows Point

Shepherd, Claire, Berwyn
Smith, Jane F., Washington, D. C.
Smith, Lelia E., Hyattsville
Strasburger, Minna E., Baltimore
Welsh, Sarah F., Baltimore
White, Margaret N., Princess Anne

UNCLASSIFIED

Auchter, Catherine, College Park
Beard, Edythe, Washington, D. C.
Cotterman, Mae Y., Hyattsville
Eaton, Effie M., Hyattsville
Logan, Helen M., Baltimore

SCHOOL OF LAW

FOURTH YEAR EVENING CLASS

Allers, Harry Waidner, Baltimore
Chambers, Robert E., Jr., Baltimore
Cochran, John Andrews, Baltimore
Cook, Noel Speir, Frostburg
Cromwell, E. Stanley, Baltimore
Doughney, Thomas, Baltimore
Goldberg, Benjamin, Baltimore
Howard, Joseph Harold, Waldorf
Kuethe, Marrian, Baltimore
McWilliams, William James, Annapolis
Mills, Daniel Clay, Sparrows Point
Peach, Francis Tenant, Granite
Postev, Tillie, Baltimore
Rheb, Charles Fulton, Baltimore
Rogers, Grafton Dulany, Baltimore
Rosenthal, Albert Nathaniel, Baltimore
Russell, Charles Elmer, Baltimore
Samuelson, Oscar, Baltimore
Sterling, T. K. Nelson, Baltimore
Stevens, Paul Bradley, Baltimore
Sutton, F. Edmund, Kennedyville
Sutton, Franklin Wilson, Baltimore
Whiteford, W. Hamilton, Baltimore
Zamanski, Bernard Thomas, Baltimore

THIRD YEAR DAY CLASS

Boyd, J. Cookman, Jr., Baltimore
Buchner, Morgan Mallory, Baltimore
Cable, John Welty, III, Chewsville
Chambers, Daniel Boone, Jr., Baltimore
Jarman, Charles Malcolm, Centreville
Pennington, Victor Power, Baltimore
Shirley, Joseph Whitney, Jr., Reisterstown

THIRD YEAR EVENING CLASS

Baker, Ephraim Morton, Baltimore
Bass, Samuel, Baltimore
Berman, Harry Howard, Baltimore
Brown, Maurice Rome, Bladensburg
Conner, George Atvill, Baltimore
Conway, John Berchmans, Baltimore
Crane, Charles, Baltimore
Egan, William Charles, Baltimore
Johnson, S. Lloyd, Catonsville
Kindley, William Erwin, Jr., Fayetteville, N. C.
Lisansky, Nelson Bernard, Baltimore
McAllister, Richard Alexander, Baltimore
McDermott, Bernard Matthew, Baltimore
McQuaid, Wilfred Thomas, Baltimore
Manahan, William T., Sabillasville
Margolis, Philip, Baltimore
Mindel, Charles, Baltimore
Nachman, William, Newport News, Va.
Sachs, Leon, Baltimore
Schellhase, Donald R., Hagerstown
Shriver, George McLean, Jr., Pikesville
Slingluff, Robert Lee, Jr., McDonogh

SECOND YEAR DAY CLASS

Arnold, Bridgewater Meredith, Baltimore
Biddison, Thomas Nichols, Baltimore
Carroll, J. B. Randol, Ellicott City
Creed, Eugene, Jr., Frederick
Doyle, William Hazelwood, Baltimore
Littman, Simon, Baltimore
Meade, Hugh Allen, Baltimore
Mitchell, James Craik, La Plata
Robbin, Barney Morton, Washington, D. C.
Shaivitz, Sylvan, Baltimore
Wills, John B., Bel Alton

SECOND YEAR EVENING CLASS

Berry, George Mauduit, Lutherville
Black, H. Ross, Jr., Hanover, Pa.
Blumenfeld, Milton, Baltimore
Ciesielski, Stanley, Baltimore
Ferciot, Thomas Nathaniel, Baltimore
Gundersdorff, Charles Howard, Jr., Baltimore
Heck, Preston Patterson, Baltimore

Hoen, John Lloyd, Baltimore
McCandless, George Byron, Baltimore
Melvin, Howard, Jr., Denton
Meyer, Paul Herbert, Baltimore
Neal, Sanford Stephen, Annapolis
Ness, George Thomas, Jr., Baltimore
Parr, W. Holton, Baltimore
Pincura, John David, Jr., Lorain, Ohio
Proctor, Kenneth Chauncey, Towson
Schap, Frank Joseph, Baltimore
Schmidt, Emil G., Osceola, Wis.
Small, Norman Jerome, Baltimore
Swain, Robert Lee, Sykesville
Tribbe, Edward William, Baltimore
Turnbull, John Grason, Baltimore
Twardowicz, Mitchell, Baltimore

FIRST YEAR DAY CLASS

Ankeney, Isaac Donald, Clear Spring
Barnes, Wilson King, Pocomoke City
Chapman, S. Vannort, Baltimore
Crothers, Omar D., Jr., Elkton
Driver, Wilmer Henry, Baltimore
Held, Charles William, Jr., Towson
Holter, Amos Albert, Jefferson
Holzapfel, Henry, III, Hagerstown
Hudson, Edward Ernest, Towson
Klawans, Emanuel, Annapolis
Lockwood, Bona Rosina, Catonsville
Marsh, Alva Van Rensselaer, Baltimore
Martin, Walter Worth, Long Island, N. Y.
Matousek, James Frank, Curtis Bay
Mindel, Meyer, Baltimore
Nice, Deeley Krager, Baltimore
Rosenblatt, Leonard Harvey, Baltimore
Snyder, Louis Leo, Annapolis
Wagaman, Charles Francis, Hagerstown
Ziegler, Edward Seymour, Baltimore

FIRST YEAR EVENING CLASS

Brown, David Stanley, Baltimore
Boone, Sanchez R., Jr., Baltimore
Clingan, Irvine Clayton, Boonsboro
Fagan, Benjamin Howard, Baltimore
Frames, Parker W., Baltimore
Hughes, Thomas Alexander, Cardiff
Langdon, Paul Horace, Baltimore
Maggio, Rose Elizabeth, Baltimore
Monsma, Gerald, Baltimore
Morgan, Alfred Kirke, Baltimore
Peard, Frank Furnival, Baltimore
Roseberry, Byron Llewellyn, Baltimore
Silverberg, Morris Morton, Baltimore
Spector, Samuel Alexander, Baltimore

Unclassified Students—DAY

Bouis, George Ezekiel, Mt. Washington
Janofsky, Louis, Baltimore

Unclassified Students—EVENING

Altman, Samuel B., Baltimore
Ashman, Harry M., Catonsville
Benjamin, James Leonard, Salisbury
Cardin, Meyer M., Baltimore
Clautice, Joseph Wilton, Baltimore
Cooper, Benjamin Bernard, Baltimore
Evans, Harvey Luther, Baltimore
Johns, Thomas Morris, Baltimore
Libauer, Leo, Baltimore
Meurer, Henry William, Baltimore
Meyer, Elbert John, Baltimore
Meyer, Leo John, Baltimore
Rosenthal, Joseph, Baltimore
Sherwood, William Douglas, Baltimore
Siegael, Irvin, Baltimore
Thomas, A. Chase, Baltimore
Vail, James Allison, Baltimore
Wilson, Bruce Cameron, Funkstown
Woolsey, Convers Keith, Aiken, S. C.

Special Students—EVENING

Boone, Robert Gibson, Rodgers Forge
Buckmaster, Everett LeRoy, Baltimore
Coplan, Fannye Ada, Baltimore
Craig, Allan James, Baltimore
Dorsey, James Hazlitt, Baltimore
Ginsberg, Alexander B., Baltimore
Griffith, Arthur Edward, Baltimore
Hoot, Dorothy Alberthine, Baltimore
Kahl, Arthur Gustavus, Baltimore
Kisor, Fred V., Baltimore
Lee, Agnes Lewis, Baltimore
Snodgrass, Ira Dale, Halethorpe
Spates, George Paul, Jr., Baltimore
Urey, Harry Bradford, Baltimore
White, Robert Wilson, Snow Hill

SCHOOL OF MEDICINE

GRADUATE STUDENTS

Carr, Ruth Fenwick, Baltimore
Millett, Joseph, Pen-Mar
Musser, Ruth Dunbracco, Mt. Washington

SENIOR CLASS

Aronofsky, Milton Robert, Hartford, Conn.
Ashman, Harry, Baltimore
Baumgardner, George M., Taneytown
Baylus, Meyer Milby, Baltimore
Belinkin, William, New York, N. Y.
Benfer, Kenneth Louis, Baltimore
Berkowitz, Rudolph, Bronx, N. Y.
Berry, Phifer Erwin, Drexel, N. C.
Blum, Joseph Sydney, Baltimore
Bonner, Merle DuMont, Aurora, N. C.
Brown, Eugene Scott, Summersville, W. Va.
Burns, John Howard, Jr., Sparrows Point
Chance, Lester Thomas, Gibson, N. C.
Chenitz, William, Newark, N. J.
Cohen, Archie Robert, Baltimore
Cohen, Irvin Joseph, Baltimore
Cohen, Max Hurston, Baltimore
Coppola, Matthew Joseph, New York, N. Y.
Durrett, Clay Earle, Cumberland
Dyar, Edna Gerrish, Washington, D. C.
Farinacci, Charles Joseph, Cleveland, Ohio
Faw, Wylie Melvin, Jr., Cumberland
Feman, Jacob George, Brooklyn, N. Y.
Fiocco, Vincent James, Brooklyn, N. Y.
Fisher, Samuel, Westwood, N. J.
Ford, John Leonard, Johnstown, Pa.
Forrest, Daniel Efland, Jr., Efland, N. C.
Garey, James Lyman, State College, Pa.
Garfinkel, Abraham, New York, N. Y.
Gerner, Harry Ezekiel, Jersey City, N. J.
Gersten, Paul Francis, Long Island, N. Y.
Ginsberg, Leon, New York, N. Y.
Goldman, Lester Milton, Newark, N. J.
Goldstein, Jacob Everett, Sullivan County, N. Y.
Goodman, Julius Henry, Baltimore
Hamer, William A., Rockingham, N. C.
Harrell, Leon Jackson, Goldsboro, N. C.
Harsha, Gene Melford, Weston, W. Va.
Helms, John Chapman, Blacksburg, Va.
Hildenbrand, Emil John Christopher, Hampden
Hill, George Delmas, Camden on Gauley, W. Va.
Hornbaker, John Harlan, Hagerstown
Hudson, Rollin Carl, Towson
Jackson, Marshall Vaden, Chapel Hill, N. C.
Johnson, Marius Pitkin, Hartford, Conn.
Keller, Frederick Doyle, Parkersburg, W. Va.
Kleinman, Abraham Morris, Brooklyn, N. Y.
Kovarsky, Albert Elias, Freehold, N. J.
Kraemer, Samuel Harry, Jersey City, N. J.
Kremen, Abraham, Baltimore
Kuhn, Esther Francis, Baltimore
Levin, Morton Loeb, Baltimore
Levy, Solomon, Palestine
Lewis, Frank Russell, Whaleysville
Mace, Vernie Emmett, Charleston, W. Va.
Magovern, Thomas F., South Orange, N. J.
Mansdorfer, George Bowers, Baltimore
Miller, Benjamin Herman, Port Deposit
Miller, Isaac, Bergen, N. J.
Miller, James Alton, Reisterstown
Montilla, Victor Jose, Rio Piedras, Porto Rico
Mortimer, Egbert Laird, Baltimore
Moser, Charles Yarnelle, Terra Alta, W. Va.
Needle, Nathan E., Baltimore
Oliver, Robert Deleon, Princeton, N. C.
Oppenheim, Joseph Harry, Brooklyn, N. Y.
Owen, Duncan Shaw, Fayetteville, N. C.
Owens, Zack Doxey, Elizabeth City, N. C.
Perlman, Robert, Brooklyn, N. Y.
Reid, Francis Fielding, Baltimore
Rineberg, Irving Edward, New Brunswick, N. J.
Romano, Nicholas Michael, Roseto, Pa.
Rosenthal, Abner Herman, Brooklyn, N. Y.
Shill, Benjamin, Newark, N. J.
Shulman, Louis Robert, Baltimore
Smith, Joseph Jacob, Bridgeport, Conn.
Snoops, George John, Jr., Baltimore
Snyder, Nathan, Baltimore
Soltroff, Jack Gerson, Philadelphia, Pa.
Sperling, Nathaniel Mortimer, Brooklyn, N. Y.
Strickland, Horace Gilmore, Nashville, N. C.
Thompson, Carl Truman, Morgantown, W. Va.
Warman, Wilton Merle, Morgantown, W. Va.
Weinstein, Jack, Brooklyn, N. Y.
Werner, Aaron Seth, Brooklyn, N. Y.
Woolley, Alice Stone, Poughkeepsie, N. Y.
Young, Ralph Funk, Hagerstown
Zeiger, Samuel, Brooklyn, N. Y.

JUNIOR CLASS

Adalman, Philip, Baltimore
Allen, Howard Stanley, Stewartstown, Pa.
Andrew, David Holmes, Baltimore
Arnett, Thomas Morrison, Clarksburg, W. Va.
Baldwin, Kenneth Malison, Laurel
Bamberger, Beatrice, Baltimore
Barton, Paul Canfield, Lakewood, Ohio
Baumgartner, Eugene Irving, Oakland
Berman, Henry Irving, Baltimore
Boggs, William Carroll, Franklin, W. Va.
Brice, Arthur Talbott, Betterton
Brill, Bernard, Brooklyn, N. Y.
Brill, John Leonard, Philadelphia, Pa.
Cashwell, Roy Lee, Hope Mills, N. C.
Cloninger, Kenneth Lee, Claremont, N. C.
Contract, Eli, Baltimore
Davis, Melvin Booth, Baltimore
Dawson, William Maddren, Shelter Island, N. Y.
Donohue, Bernard Walker, Mt. Washington
Drenga, Joseph Francis, Baltimore
Eckstein, Harry, Brooklyn, N. Y.
Edel, John Wesley, Jr., Govans
Eisenberg, David Solomon, New York, N. Y.
Ernest, Roy Cooper, Coshocton, Ohio
Feldman, Samuel, Baltimore
Feuer, Arthur S., Bronx, N. Y.
Foster, Ruth, Baltimore
Friedman, Joseph, Brooklyn, N. Y.
Grossman, Isadore, Baltimore
Grove, Donald Birtner, Cumberland
Gundry, Rachel Krebs, Baltimore
Hannum, Marvin Ray, Levels, W. Va.
Harris, Joseph William, Provo, Utah
Harton, Roman Albert, Durham, N. C.
Helfrich, Raymond Frederick, Baltimore
Hoffman, Reuben, Baltimore
Hollander, Mark Buckner, Baltimore
Hornbrook, Kent M., New Martinsville, W. Va.
Jacobson, Samuel Maurice, Baltimore
Jaklitsch, Frank H., New York, N. Y.
Jensen, Carl Dana Fausbol, Seattle, Wash.
Jett, Page Covington, Baltimore
Jones, Arthur Ford, Cumberland
Karger, Abraham, New York, N. Y.
Kaufman, Max, Brooklyn, N. Y.
Keefe, Walter Joseph, Waterbury, Conn.
Kermisch, Albert, Baltimore
Kilgus, John Frank, Jr., Williamsport, Pa.
Kimmins, William Elias, Dallas, W. Va.
Kohn, Walter, Baltimore
Krieger, Jerome Leon, Baltimore
Krosnoff, Michael, Washington, Pa.
Lachman, Harry, Baltimore
Langeluttig, Harry Vernon, Baltimore
Lanham, Alston Gordon, Rainelle, W. Va.
Lerner, Philip Frank, Baltimore
Leshine, Sidney Starr, New Haven, Conn.
Levine, David Robert, Brooklyn, N. Y.
Lubin, Paul, Baltimore
Mahan, Edgar Wade, Washington, Pa.
Maloney, Leonard Eugene, Hinton, W. Va.
Mankovich, Desiderius George, Punxsutawney, Pa.
Martin, Thomas Adrian, Asbestos
Masterson, John Francis, Jersey City, N. J.
Meyer, Leo Martin, Brooklyn, N. Y.
Morrison, Clarence Fisher, Sutton, W. Va.
Moyers, Waldo Briggs, Mathias, W. Va.
Murphy, Richard Lawrence, Manchester, N. H.
Nocera, Francisco Paolo, Mayaguer, Porto Rico
Palitz, Leo Solomon, New York, N. Y.
Rehmeyer, Walter Owen, Shrewsbury, Pa.
Rhoads, John Peter, Ashland, Pa.
Rodriguez, Manuel, Santurce, Porto Rico
Rohm, Robert Franklin, Carnegie, Pa.
Rosenberg, Benjamin, Brooklyn, N. Y.
Rosenthal, Henriette E., Baltimore
Rozum, John Charles, Sloatsburg, N. Y.
Schimunek, Emmanuel Aloysius, Baltimore
Seabold, William Merven, Catonsville
Seidman, Herman Harold, New York, N. Y.
Shaw, Christopher Campbell, Baltimore
Shelley, Harry Sandberg, Baltimore
Shochat, Albert Joshua, New York, N. Y.
Siwinski, Arthur George, Baltimore
Skovron, Michael, Jr., Erie, Pa.
Slate, Marvin Longworth, High Point, N. C.
Slavcoff, Alexander, Grove City, Pa.
Smith, Solomon, Baltimore
Sprecher, Milford Harsh, Fairplay
Sterling, Susanne, Crisfield
Stevens, Russell A., Wilkes-Barre, Pa.
Taylor, Robert Bruce, Crafton, Pa.
Van Orner, William Alfred Shellsburg, Pa.
Warren, Edward William, Ithaca, N. Y.
Whims, Harold Carter, Wake Forest, N. C.
Wigderson, Henry, New York, N. Y.

SOPHOMORE CLASS

Abrashkin, Mortimer Dick, New Haven, Conn.
Ahroon, Carl Richard, Jr., Baltimore
Ashman, Leon, Baltimore
Bell, Charles Ray, Jr., Lebanon, Pa.
Bell, James Russell, Canonsburg, Pa.
Bercovitz, Nathan, New York, N. Y.
Berger, Herbert, Brooklyn, N. Y.
Blum, Samuel Daniel, Bronx, N. Y.
Bogorad, Daniel Emil, Baltimore
Brown, William Edward, Los Angeles, Cal.
Byer, Jacob, Baltimore
Cannon, Martin, Cleveland, Ohio
Chimacoff, Hyman, Newark, N. J.
Clayman, David Stanford, Baltimore
Crecca, Anthony Daniel, Newark, N. J.
Currie, Dwight McIver, Carthage, N. C.
Davis, Carroll Kalman, Brooklyn, N. Y.
Demarco, Salvatore Joseph, Baltimore
Diamond, Joseph George, Long Branch, N. J.
Dumler, John Charles, Baltimore
Eichert, Herbert, Woodlawn
Eisenbrandt, William Henry, Mt. Washington
Fein, Jack, Long Island, N. Y.
Fishbein, Elliott, Paterson, N. J.
Flom, Charles, Baltimore
France, Andrew Menaris, Hagerstown
Ganz, S. Evans, Brooklyn, N. Y.
Geller, Sam, Newark, N. J.
Gershenson, David Abraham, Baltimore
Gittleman, Sol Ellman, Brooklyn, N. Y.
Glass, Albert Julius, Baltimore
Gluckman, Albert Gerson, Wilmington, Del.
Gorenberg, Harold, Jersey City, N. J.
Grosh, Joseph Walter, Lititz, Pa.
Halperin, David, Jersey City, N. J.
Hammell, Frank Mull, Trenton, N. J.
Hantman, Irvin, Baltimore
Harris, Jacob, Brooklyn, N. Y.
Hecht, Manes Scheuer, Baltimore
Hendler, Hyman Bernard, Baltimore
Hull, Harry Clay, Jr., Frederick
Jacobson, Meyer William, Baltimore
Kaplan, Abraham Nathan, Brooklyn, N. Y.
Karfgin, Arthur, Baltimore
Katz, Abraham, Bronx, N. Y.
Katz, Leonard, Baltimore
Katzenstein, Lawrence, Baltimore
Keiser, Sylvan, Brooklyn, N. Y.
Klimes, Louis Frank, Baltimore
Korostoff, Bernard, Brooklyn, N. Y.
Kress, Milton Bernard, Baltimore
Krieger, Alexander Allan, Pittsburgh, Pa.
Lechner, Sidney Israel, Bronx, N. Y.
Lefkowitz, Jacob, New York, N. Y.
Legum, Samuel, Baltimore
Lerner, George, Brooklyn, N. Y.
Lieberman, Samuel, New York, N. Y.
Louft, Reuben Richard, Hyattsville
MacMillan, William Owen, Charleston, W. Va.
McGovern, William Joseph, Carnegie, Pa.
Markman, Harry David, New York, N. Y.
Mickley, John Hoke, Gettysburg, Pa.
Miller, Myron J., New York, N. Y.
Moores, John Duer, Finksburg
Nachlas, Arthur, Baltimore
Newnam, Alpheus Carlton, Jr., Bellevue
Panebianco, Richard Robert, Long Island, N. Y.
Pear, Henry Robert, Baltimore
Philip, Arthur Jay, Brooklyn, N. Y.
Pink, Solomon Harris, Passaic, N. J.
Prigal, Samuel, New York, N. Y.
Proctor, Samuel Edward, Cardiff
Prussack, Sol, Bayonne, N. J.
Reckson, Morris Murray, Brooklyn, N. Y.
Roberts, Marion Butler, Hillsboro, N. C.
Rohm, Jack Seth, Carnegie, Pa.
Rosenthal, Stephen Isaiah, Scranton, Pa.
Rubenstein, Robert, Jersey City, N. J.
Sager, Harold, Bayonne, N. J.
Sanchez Robert Luis, Mexico City, Mex.
Saunders, Thomas Sewell, Baltimore
Savage, John Edward, Washington, D. C.
Schwartz, David I., Baltimore
Shack, Max Herman, Springfield, N. J.
Shaw, John Jacob, Newark, N. J.
Siegel, Sidney Leon, Jersey City, N. J.
Silverstein, George, Derby, Conn.
Simmons, John Frederick, Cambridge
Snyder, Jerome, Baltimore
Sollod, Aaron Charles, Baltimore
Statman, Arthur James, Newark, N. J.
Stein, Charles, Baltimore
Stephenson, Frank Richard, Baltimore
Taylor, Francis Nicholson, Blacksburg, Va.
Thompson, Harry Goff, Mt. Vernon, Ill.
Wirts, Carl Alexander, Pittsburgh, Pa.
Young, Alexander, New York, N. Y.
Zupnik, Howard Lester, New Freedom, Pa.
Zuravin, Meyer Harry, Keyport, N. J.

FRESHMAN CLASS

Aaron, Harold Henry, New York, N. Y.
Abramovitz, David, Leechburg, Pa.
Allen, Edwin John, Paterson, N. J.
Alpert, George, Dorchester, Mass.
Austraw, Henry Harrison, Dundalk
Baker, George Stansbury, Howardville
Baylus, Joseph, Baltimore
Beanstock, Sam, Brooklyn, N. Y.
Becker, Martin, East Orange, N. J.
Bellin, David Elias, Long Island, N. Y.
Bernhardt, William, Baltimore
Bernstein, Joseph, Baltimore
Bicchieri, Nunzio Anthony, Belmont, Mass.
Bilcovitch, Harry David, Scranton, Pa.
Blake, Alan Franklin, Marion
Blitzman, Louis, New York, N. Y.
Bowden, LeRoy Merrill, Big Spring
Bowman, Harry Daniel, Hagerstown
Bucke, William Fowler, Jr., New Buffalo, Pa.
Buffum, Edward Henry, Manchester, N. H.
Campbell, Edgar Thrall, Hagerstown
Caples, Delmas, Reisterstown
Caton, Franklin Walter, Hagerstown
Coates, Stephen Paul, Brooklyn, N. Y.
Cohen, Bernard S., Wilmington, Del.
Cohen, Marvin Meyer, Paterson, N. J.
Comegys, Richard Williamson, Millington
Comodo, Nicholas Marius, Hartford, Conn.
Diehl, Harold Clayton, Grantsville
DiStasio, Frank, New Haven, Conn.
Drucker, Victor, New York, N. Y.
Emanuel, Meyer, New York, N. Y.
Espinosa, Manuel, Rio Piedras, Porto Rico
Etkind, Meyer George, New Haven, Conn.
Fineman, Jerome, Baltimore
Franklin, Frank Anthony, Orange, N. J.
Frost, George Lewis, Bradley Beach, N. J.
Gracia-Mendez, Carlos, Aguadilla, Porto Rico
Gilbert, Arthur, Somersworth, N. H.
Goldman, Abram, Baltimore
Goldman, Alexander Blodnick, Brooklyn, N. Y.
Goldman, Meyer Leo, Long Island, N. Y.
Goldstein, Morton Allen, Baltimore
Hanagan, John Joseph, Somersworth, N. H.
Harris, Earle Harold, New York, N. Y.
Heller, Mitchell Starabin, Spring Valley, N. Y.
Hickey, John Francis, West Chester, Pa.
Highstein, Gustav, Baltimore
Hill, Nelson Marks, Marysville, Pa.
Himelfarb, Albert Joseph, Baltimore
Holland, Charles Albert, Berlin
Hurwitz, George, Hartford, Conn.
Hyman, Joseph, Brooklyn, N. Y.
Hyman, Morris, Stamford, Conn.
Jones, Grace Germania, Baltimore
Justice, James Thomas, Kernersville, N. C.
Keefe, Russell Joseph, New Britain, Conn.
Kenler, Myron Lewis, Baltimore
Keown, Lauriston Livingston, Baltimore
Kimmel, Charles, Newark, N. J.
Kochman, Leon Arthur, Cumberland
Konigsberg, Wilfred Kane, New York, N. Y.
Kreglow, Alan Frank, Washington, D. C.
Kurz, Theodore George, Meriden, Conn.
Lanier, Verne Clifton, Welcome, N. C.
Layne, Frank Hopkins, Prestonsburg, Ky.
Lentz, George Ellard, York, Pa.
Lifland, Bernard Daniel, Newark, N. J.
Lowman, Milton Edward, Baltimore
Maginnis, Helen Irene, Baltimore
McAndrew, Charles Roger, Yatesboro, Pa.
Malinoski, Wallace Henry, Baltimore
Matheke, George Adolph, Newark, N. J.
Miller, Benjamin, New York, N. Y.
Miller, Meyer George, Brooklyn, N. Y.
Moore, James Irving, Baltimore
Moosey, George Anthony, Monongah, West Va.
Nichols, Myers Lee, Fairmont, West Va.
Novenstein, Sidney, Milford, Conn.
O'Neill, Joseph Brown, Uniontown, Pa.
Osserman, Kermit Edward, New York, N. Y.
Peer, George Foster, Grafton, West Va.
Pico, Jose Teodoro, Coamo, Porto Rico
Racusin, Nathan, Baltimore
Reardon, William Thomas, Wilmington, Del.
Richardson, Jack, Marlinton, West Va.
Robinson, Daniel Robert, Brooklyn, N. Y.
Rosenbaum, Louis Colman, Newark, N. J.
Rosenberg, Arthur, Brooklyn, N. Y.
Rosenberg, Morris Murray, Brooklyn, N. Y.
Rosenblatt, George Daniel, Brooklyn, N. Y.
Rosenfeld, David Herman, Baltimore
Rosenstein, Sidney Solomon, Jersey City, N. J.
Rubin, Samuel S., Baltimore
Ruth, George E., Stouchsburg, Pa.
Rutland, Hedley Ethelbert, York, Pa.
Sapperstein, Jacob H., Baltimore
Sasscer, James Y., Upper Marlboro
Satou, Marcus, Baltimore
Satulsky, Emanuel Milton, Elizabeth, N. J.
Schiff, Hyman, Annapolis
Schiff, Joseph, Annapolis
Schindler, Blane Markwood, Cumberland

Schlachman, Milton, Baltimore
Schmidt, George Matthew, Baltimore
Schneiman, Maurice Harris, Philadelphia, Pa.
Schochet, George, Baltimore
Schwartz, Alec Robert, East Pittsburgh, Pa.
Schwartz, Paul, Baltimore
Scoles, Peter Serafino, Long Branch, N. J.
Sedlacek, Joseph Arthur, Towson
Shea, Cornelius Joseph, Bridgeport, Conn.
Smith, Ashby Wade, Durham, N. C.
Soltis, Michael Joseph Wieciech, Baltimore
Soltz, William Boyer, New York, N. Y.
Stackhouse, Howard, Jr., Palmyra, N. J.
Stein, Milton R., Baltimore
Stern, Maurice Lee, Brooklyn, N. Y.
Stewart, Garland, Pineville, West Va.
Szule, Stephen, New Brunswick, N. J.
Taylor, Clifford Morrison, Westminster
Teitelbaum, Harry Allen, Brooklyn, N. Y.
Thumin, Mark, New York, N. Y,
Turano, Leonard Francis, Brooklyn, N. Y.
Van Metre, John Lee, Shepherdstown, West Va.
Walker, Richard Charles, Scranton, Pa.
Weisman, Samuel, Baltimore
Wit, Maurice Carl, New York, N. Y.
Wolbert, Frank, Baltimore
Zager, Saul, Newark, N. J.
Zimmerman, Fred, New York, N. Y.

SPECIAL STUDENTS

Dowding, Grace Lillian, Portsmouth, Va.
Haynes, John M., Baltimore

SCHOOL OF NURSING

GRADUATE STUDENTS

Fox, Margaret Milton, Sellman
Goodman, Hattie Goldie, Princess Anne
Haddox, Evelyn Cathrine, Berkeley Springs, W. Va.
Willis, Hilda Dale, Bridgeton, N. C.

SENIOR CLASS

Adkins, Gladys Blanche, Pittsville
Ayersman, Ethel Ellen, Rowlesburg, W. Va.
Baker, Dora Julia, Cumberland
Bradley, Alma Martin, Federalsburg
Brittain, Bernice Elizabeth, Federalsburg
Bulman, Mabel Hume, Wachapreague, Va.
Conner, Marie Elizabeth, Baltimore
Davis, Oscie Louise, Elizabeth City, N. C.
Dutterer, Grace Naomi, Westminster
Frothingham, Ruth Cecelia, Baltimore
Hutchinson, Lera Mae, White Stone, Va.
Laigneil, Eva Ellen, Federalsburg
Lefler, Annie Adeline, Albemarle, N. C.
Reed, Mildred, Cambridge
Sheppard, Myrtle Lea, Bel Air
Tarun, Bertha Anna, Baltimore
Tilghman, Maude Ethel, Parsonsburg
Trice, Elizabeth Stevenson, Federalsburg
Ward, Ruth Caroline, Forest Hill
Walsh, Helen Blanche, Rowlesburg, W. Va.

INTERMEDIATE CLASS

Bennett, Margaret Louise, North Tazewell, Va.
Bodmer, Doris Louise, Poolesville
Bolton, Dorothy May, Olney
Bond, Annie Irene, Hoyes
Brown, Elizabeth Waters, Brookeville
Bruin, Catherine Anna, Baltimore
Click, Evelyn Ruth, Lonaconing
Conner, Evelyn Annette, Quitman, Ga.
Cox, Marie Olga, Homeville, Va.
Davis, Mary Edna, Berlin
Ervin, Erma Irene, Keyser, W. Va.
Goodell, Margaret Jessie, Baltimore
Groomes, Margaret Boone, Brookeville
Hales, Edna Sallie, Snow Hill
Hall, Marion Claudia, Red Lion, Pa.
Helsby, Helen Roselyn, East New Market
Heritage, Elizabeth Virginia, Raleigh, N. C.
Horsman, Florence, Bivalve
Langford, Elton Louise, Frostburg
Martin, Louise Davis, Snow Hill
Mills, Mildred Viola, Sharpsburg
Nesbitt, Edith Helen, Baltimore
Noble, Lillian Charles, Federalsburg
Reiblick, Vivian Frances, Woodlawn
Roach, Rowena Georgia, Hagerstown
Rodes, Luella Mildred, Manchester, Pa.
Sills, Elsie Haynes, Statesville, N. C.
Smith, Ardean Lucia, Red Lion, Pa.
Soden, Leona Grace, Bicknell, Ind.
Toms, Josephine Annabelle, Myersville
Williams, Josephine Virginia, Elkridge
Wood, Hulda Vane, Hertford, N. C.

JUNIOR CLASS

Cameron, Blanche Virginia, Millville W. Va.
Compton, Ruth Jane, Sinks Grove, W. Va.
Gallaher, Elizabeth Louise, Richardson Park, Del.
Harris, Bessie Katheryn, Albemarle, N. C.
Hughlett, Caroline Kemp, Trappe
Miller, Carrie Estella, Red Lion, Pa.
Miller, Ella Irene, Red Lion, Pa.
Peppler, Irene Juliet, Baltimore
Reifsnider, Janet Beryl, Keymar
Schaffer, Ruth Madeline, Hagerstown
Taylor, Arminta Eveline, Red Lion, Pa.
Thompson, Julia Weddington, Davidson, N. C.
Whistler, Mildred Belle, Broadway, Va.
White, Rebecca Joyner, Bedford, Va.

PROBATIONERS

Applegarthe, Rebecca Louise, Cambridge
Baker, Marguerite Virginia, Chattanooga, Tenn.
Butler, Nellie Virginia, Great Cacapon, West Va.
Durst, Gladys Leona, Grantsville
Eastman, Dorothy Evelyn, Intervale, N. H.
Emery, Mary Elizabeth, Neffs, Ohio
Gladden, Irene Douglas Travers, Princess Anne
Gordon, Ruth, Attleboro, Mass.
Hardin, Maurice, Chester, S. C.
Hogan, Sara Frances, Burlington, N. C.
Holloway, Eva Opal, Baltimore
Huddleston, Margaret Louise, Raleigh, N. C.
Kline, Mary Jane, Hagerstown
Lee, Virginia, Quincy, Fla.
McFadden, Ella Virginia, Port Deposit
Michael, Mildred Elizabeth, Frostburg
Moore, Frances Ellen, Cambridge
Morris, Ruby Harold, Stuarts Draft, Va.
Munroe, Leta Foard, Sparrows Point
Murdoch, Virginia Louise, Mt. Airy
Murray, Edna Gertrude, Westminster
Nichols, Marie Marguerite, Federalsburg
Patterson, Mary Bennett, Finksburg
Powell, Mildred Dorothy, Ahoskie, N. C.
Richards, Margaret, Baltimore
Roach, Virginia Ellen, Brunswick
Rudisill, Gladys Louise, Iron Station, N. C.
Schuh, Josephine Alice, Keyser, West Va.
Thurston, Charlotte, Clayton, N. C.
Van Dyke, Vergie Mary, Sinks Grove, West Va.
West, Mildred Wilson, Girdletree
Wilburn, Clara Evelyn, Jennings
Worthy, Elizabeth Mary, Chester, S. C.
Yagodkin-Pappadato, Olga, Baltimore

SCHOOL OF PHARMACY

GRADUATE STUDENTS

Andrews, Marvin Jackson, Baltimore
Bauer, John Conrad, Baltimore
Briggs, William Paul, Washington, D. C.
Goldstein, Samuel William, Baltimore
Kerpelman, Isaac, Baltimore
Lesser, Abraham D., Baltimore
Manchey, L. Lavan, Glen Rock, Pa.
Millett, Joseph, Pen-Mar
Shulman, Emanuel Veritus, Baltimore
Slama, Frank James, Baltimore

FOURTH YEAR CLASS

Brickman, Hilliard, Baltimore
Cwalina, Gustav Edward, Baltimore
Deal, Justin, Cumberland
Eisman, Morris Jacob, Baltimore
Greenberg, Harry Lee, Baltimore
Grove, Donald Cooper, Baltimore
Ichniowski, Casimer Thaddeus, Baltimore
Kaufman, Stanley Louis, Baltimore
Kurland, Louis John, Baltimore
McNally, Hugh Bernard, Baltimore
Pasco, Louis Edward, Baltimore
Provenza, Stephen J., Baltimore
Roberts, William P. Baltimore
Schapiro, Samuel, Baltimore
Sealfon, Irwin Israel, Baltimore
Senger, Joseph Anton, Baltimore
Settler, Myer Martin, Baltimore
Spigelmire, Charles Edgar, Jr., Sparrows Point
Zervitz, Max Morton, Baltimore

THIRD YEAR CLASS

Archambault, Paul Joseph, McIntosh, S. D.
Baker, William, Baltimore
Bayley, John Sharpley, Baltimore
Benick, Carroll Richard, Baltimore
Bernstein, Nathan, Baltimore
Blumberg, Ely, Baltimore
Buppert, Hobart Charles, Baltimore
Caplan, Milton, Baltimore
Carmel, Joseph, Baltimore
Chandler, Nehemiah Wallop, Ocean City
Chupnick, David, Baltimore
Cohen, Harry Jacob, Baltimore
Cohen, Lawrence Jay, Baltimore
Cornblatt, Edmund Adam, Baltimore
Dalinsky, Harry Alexander, Baltimore
Diener, Samuel, Baltimore
Dyott, William Heller, Baltimore
Eagle, Philip T., Baltimore
Feldman, Leon Henry, Baltimore
Fineman, Elliott, Baltimore
Fisher, Arthur, Baltimore
Fisher, Joel, Baltimore
Foley, William Thomas, Havre de Grace
Forman, Robert Reuben, Baltimore
Friedman, Howard, Baltimore
Fulton, Charles Thomas, Musquodoboit, Canada
Gaboff, Benjamin, Baltimore
Geesey, Alton Luther, Spring Grove, Pa.
Glick, Harry, Baltimore
Goldstone, Herbert, Baltimore
Goodman, Howard, Baltimore
Gorban, Thomas, Baltimore
Gordon, Joseph, Baltimore
Gresser, Isidor Harry, Baltimore
Gum, Wilbur H., Jr., White Sulphur Springs, W. Va.
Harris, Morris, Baltimore
Helgert, Ernest, Baltimore
Helman, Max M., Baltimore
Henderson, Edward Harold, Baltimore
Hergenrather, Louis, III, Towson
Homberg, Henry Irvin, Baltimore
Horne, Peyton N., Baltimore
Hunter, Calvin Leroy, Dundalk
Hurwitz, Abraham, Baltimore
Jaeggin, Richard Ben., Baltimore
Jaffe, Bernard, Baltimore
Janousky, Nathan Bonny, Baltimore
Kahn, Leon, Jersey City, N. J.
Kallinsky, Edward, Severna Park
Karns, Hugh Hubert, Cumberland
Klein, B. Franklin, Jr., Baltimore
Klimen, Samuel E., Baltimore
Kushner, Meyer, Baltimore
Laiacoma, Felix, Corona, N. Y.
Landsberg, J. Walter, Baltimore
Lathroum, Reginald Tonry, Baltimore
Lavin, Bernard, Baltimore
Levin, Lester, Baltimore
Levin, Milton, Baltimore
Meyers, Carl Jording, Baltimore
Milan, Joseph Simon, Baltimore
Miller, Harry, Baltimore
Miller, Irving Walton, Baltimore
Mitchell, Joseph Paul, Baltimore
Mund, Maxwell Herschel, Baltimore
Narunsky, Reuben, Baltimore
Neumann, Walter Paul, Overlea
Niznik, Theodore Thaddeus, Baltimore
Owens, Randall Mather, Salisbury
Packett, William Harold, Warsaw, Va.
Petts, George Edward, Jr., Baltimore
Pinsky, Herman Hyman, Baltimore
Purdum, William Arthur, Baltimore
Raffel, Leon, Baltimore
Richmond, Samuel, Baltimore
Rodbell, Theodore Ellis, Baltimore
Rosenberg, Bernard, Baltimore
Rudie, Harry, Baltimore
Rudo, Nathan, Baltimore
Ruth, Stephen Walter, Baltimore
Sacks, Aaron M., Norfolk, Va.
Sacks, Milton Samuel, Baltimore
Schapiro, Abraham Benjamin, Baltimore
Schwartz, Daniel James, Baltimore
Schwartz, Theodore A., Baltimore
Seidman, Henry George, Baltimore
Shaughnessy, Grace Evelyn (Sister Zeo), Emmitsburg
Shivers, Mildred Louise, Baltimore
Shure, Arthur Alvin, Baltimore
Singer, George Donald, Baltimore
Spain, Mary Ellen (Sister Lydia), Emmitsburg
Standiford, Isaac Willard, Fallston
Stimek, Joseph A., Baltimore
Striner, Benjamin, Baltimore
Susel, Benjamin Edward, Baltimore
Svarovsky, John William, Baltimore
Thiermann, Thomas Flemming, Jr., Baltimore
Weiner, Martin, Baltimore
Weinstein, Jack Joseph, Baltimore
Wilder, Earle Maurice, Glyndon
Wright, Thomas Gorsuch, Baltimore
Zerofsky, Frank, Baltimore
Zilber, Samuel Nathan, Baltimore

SECOND YEAR CLASS

Alessi, Edward James, Baltimore
Austraw, Richard Freeman, Dundalk
Barke, Daniel Stanley, Baltimore
Batalion, Abraham Louis, Baltimore
Beck, Samuel Dudnik, Baltimore
Beitler, Ben, Baltimore
Bennett, Lester Leroy, Baltimore
Berman, Frederic Theodore, Baltimore
Bloom, Max, Annapolis
Briele, Henry Alison, Baltimore
Brunnett, William Lester, Baltimore
Brusowankin, Maurice, Baltimore
Budacz, Julius Francis, Baltimore
Cantor, Jessie, Baltimore
Carton, Frieda, Baltimore
Chayt, Edwin Saladin, Baltimore
Clarke, Mary Carmel, Mt. Washington
Cohen, Morris Gusdorff, Baltimore
Cotter, Edward Francis, Baltimore
Cummings, Renwick Speer, Baltimore
DeDominicis, Amelia, Baltimore
Diehl, Earl Henry, Baltimore
Dinges, Frank Cameron, Edinburg, Va.
Downs, Grant, Jr., Baltimore
Edelstein, Joseph Horace, Baltimore
Elsberg, Milton Leonard, Baltimore
Feldman, David, Baltimore
Fox, Lester Mitchell, Baltimore
Garfinkel, Meyer, Baltimore
Ginsberg, Benjamin, Baltimore
Glassner, Frank, Baltimore
Goldblatt, Ben, Portsmouth, Va.
Goldstein, Sam Alvin, Baltimore
Gordon, Charles, Baltimore
Gorfine, Bernard Maurice, Baltimore
Grollman, Jacob Jaye, Baltimore
Gross, Joseph Bernard, Baltimore
Grossman, Bernard, Caldwell, N. J.
Grothaus, David Benton, Jr., Baltimore
Harris, Aaron, Baltimore
Heck, John Conrad, Baltimore
Heer, Melvin Lentz, Baltimore
Heghinian, Jeannette Rosaline, Baltimore
Henderson, Marvin Webb, White Hall
Hens, Louis Leonard, Baltimore
Highstein, Benjamin, Baltimore
Hulla, Joseph James, Baltimore
Hunt, William Howard, Baltimore
Hyman, Paul, Baltimore
Illberg, Peter Ludwig, Worcester, Mass.
Itzoe, Leonard Valentine, New Freedom, Pa.
Joffe, Albert, Baltimore
Kairis, Nancy Emily, Baltimore
Karwacki, William Stanley, Jr., Baltimore
Katz, Joseph, Baltimore
Kesmodel, Charles Raymond, Baltimore
Kirson, Walter, Baltimore
Klavens, Elmer, Baltimore
Krakower, Jacob, Baltimore
Kreis, Edna Elizabeth, Baltimore
Ladensky, William, Baltimore
Lagna, Ernest Louis, Baltimore
Levin, Harold Joseph, Baltimore
Levin, Max, Baltimore
Love, Edward Bennett, Atlantic City, N. J.
McTeague, Charles Joseph, Baltimore
Marek, Anton Charles, Baltimore
Marek, Charles Bernard, Baltimore
Mendelson, Herman, Baltimore
Michel, John Vernon, Baltimore
Miller, Nathaniel Arnold, Baltimore
Millett, Sylvia, Pen-Mar
Moore, Alfred Charles, Baltimore
Morstein, Raymond Milton, Baltimore
Moscati, Marius Anthony, Baltimore
Moses, Benny Bobby, Baltimore
Naiditch, Morton Elliott, Baltimore
Newman, Leon, Baltimore
Oken, Louis Edward, Baltimore
Ordecki, Anthony Victor, Elizabeth, N. J.
Parlett, George Dawson, Baltimore
Pasovsky, Isadore Jack, Baltimore
Pelovitz, Nathan Gedalia, Baltimore
Pfeifer, Charles Michael, Baltimore
Robinson, Harry Maximilian, Baltimore
Rodriguez, Sara Gilda, Mayaguez, Porto Rico
Rostov, Samuel Joseph, Baltimore
Rubin, Sylvan Isadore, Baltimore
Savage, Walter Thomas, Ocean City
Schmalzer, Dorothy Elizabeth, Baltimore
Schmitt, George Frederick, Jr., Baltimore
Schulte, Charles John, Jr., Baltimore
Scoll, Lea H., Newport News, Va.
Scott, Virginia Patricia, Annapolis
Shenker, Arthur, Baltimore
Sherman, Louis Lazar, Baltimore
Shoben, Gerald, Baltimore
Smulovitz, David, Baltimore
Sollod, Herbert, Baltimore
Spellman, Mary Rita, Mt. Washington
Steinberg, Bernard, Baltimore
Stiffman, George J., Baltimore
Tourkin, David, Baltimore
Tralinsky, Julius Joseph, Baltimore
Wilson, John Jacob, Brooklyn
Wode, Alvin Eugene, Baltimore
Wolf, Nathan, Baltimore
Wolfovitz, Sam, Baltimore
Wollman, Joseph Isidore, Baltimore
Young, Charles Louis, Baltimore
Zolenas, Anthony John, Jr., Baltimore

FIRST YEAR CLASS

Abramson, Daniel Jerome, Baltimore
Askey, Wilbur Gibson, Baltimore
August, Henry John, Baltimore
Baier, John Cletus, Baltimore
Baldwin, Francis Clinton, Baltimore
Barnstein, Harry, Baltimore
Barshack, Jack, Baltimore
Battaglia, Joseph John, Baltimore
Bomstein, Sol, Baltimore
Bright, Herbert Lawrence, Baltimore
Burtnick, Lester Leon, Baltimore
Carlson, Carl Edwin, New Haven, Conn.
Carr, Charles Jelleff, Baltimore
Cohen, Philip, Long Branch, N. J.
Czekaj, Leo Michael, Baltimore
Dausch, Michael Joseph, Baltimore
Davis, Louis Detrick, Baltimore
DeVouges, Francis B., Laurel
Drozd, Joseph, Baltimore
Dvorak, George James, Baltimore
Eisen, Martin David, Baltimore
Falagan, Luis Felipe, Mayaguez, Porto Rico
Feldman, Charles William, Baltimore
Feldman, Milton Herbert, Baltimore
Feldman, Morris, Baltimore
Fleagle, Mildred Carol, Baltimore
Fleischman, Ralph, Baltimore
Foxman, Marvin Jay, Baltimore
Fribush, Robert, Baltimore
Frohman, Isaac, Baltimore
Galperin, Irving Oscar, Baltimore
Gareis, Calvin Louis, Baltimore
Garonzik, Hamilton Lewis, Hagerstown
Germuth, Gordon Henry, Lansdowne
Goldberg, Harry Joel, Baltimore
Gordon, Samuel, Baltimore
Greenberg, Alvin, Baltimore
Hackett, Bernard Edward, Baltimore
Hearn, Clifford Burton, Baltimore
Helfgott, Aaron Harry, Baltimore
Heneson, Henry, Baltimore
Hines, Nathaniel Starkey, Baltimore
Hoffeld, Henry William, Baltimore
Holtgreve, Karl Harry, Baltimore
Jacobs, Louis Oscar, Baltimore
Jules, Bernard C., Baltimore
Kaminski, Felix H., Baltimore
King, Alfred Michael, Baltimore
Kirson, Jerome, Baltimore
Knox, Douglas Roscoe, Baltimore
Koten, Bernard, Baltimore
Kramer, Leonard Howard, Baltimore
Laroque, Jean Regis, Baltimore
Levin, Benjamin, Baltimore
Levin, Philip, Keller, Va.
Leyko, Bertha Alvina, Baltimore
Leyko, Gregory William, Baltimore
Libowitz, Aaron M., Baltimore
Littman, Samuel Stanley, Baltimore
McGinnis, David Franklin, Randallstown
Mackowiak, Stephen Casimir, Baltimore
Macks, Ben Harold, Baltimore
Maggio, Anthony Joseph, Annapolis
Maggio, Salvatore Joseph, Baltimore
Matthews, Alfred Thomas, Parksley, Va.
Messina, Julius, Baltimore
Miller, Reuben, Baltimore
Molinari, Salvatore, Baltimore
Moser, Vera Gladys, Baltimore
Myerovitz, Joseph Robert, Baltimore
Myers, Lyndon Beaver, Glen Rock, Pa.
Nichelson, Max, Baltimore
Paiz, Benito, Nicaragua, C. A.
Parr, William Andrew, Hamilton
Parrott, John Goudelock, Baltimore
Pinerman, Jerome, Baltimore
Poggi, Julia Elizabeth, Baltimore
Reistetter, George Miathias, Sparrows Point
Rodriguez, Demetrio Antonio, Mayaguez, Porto Rico
Sacks, Morris, Baltimore
Sandals, George Eugene, New Britain, Conn.
Schammel, Adam John, Overlea
Schmalzer, William Joseph, Jr., Baltimore
Schmidt, Jacob, Baltimore
Segall, Jack, Baltimore
Sellers, Harry H., Cumberland
Senger, Charles Frank, Baltimore
Serra, Catherine Margaret, Baltimore
Shimanek, Lawrence Joseph, Baltimore
Shipley, Albert Robosson, Baltimore
Shochatt, Maurice Ralph, Baltimore
Silberman, Irving, Baltimore
Silberman, Joseph, Baltimore
Sisco, Samuel, Baltimore
Smith, Maurice R., Baltimore
Snyder, Sidney, Baltimore
Sperandeo, Frank, Baltimore
Stecher, Joseph Louis, Baltimore
Steinbach, Ralph Hyman, Baltimore
Steiner, Albert, Baltimore
Treppe, Charles Peter, Baltimore
Twelbeck, John Henry, Baltimore
Ulrich, Jack Stanley, New York, N. Y.
Vogel, Louis, Jr., Baltimore
Vojik, Edward Charles, Baltimore
Ward, Arthur Thomas, Jr., Baltimore
Wehner, Daniel George, Baltimore
Wilderson, Reginald Stitely, Baltimore
Witzke, Louis Henry, Baltimore
Wolf, Ida Noveck, Baltimore
Young, James John, Baltimore
Zerwitz, Sidney, Baltimore

SPECIAL STUDENTS

Gakenheimer, Albert C., Aberdeen
Gottdiener, Elvin Edward, Baltimore
Marks, Sydney Isadore, Baltimore
Teh-Chuan, Cheng, Foochow City, China

Abell, Daisy S., St. Inigoes
Adams, Hazel M., Oldtown
*Adkins, Charles S., Newark
Alband, Jo D., Silver Spring
Albrittain, Maria L., LaPlata
*Aldrich, Willard W., College Park
Alexander, Lavinia M., Salisbury
Allen, James C., Bethesda
Anderson, Catherine R., Washington, D. C
Anderson, Eva V., Chestertown
Ardinger, Ellen B., Williamsport
Arends, Katherine S., Washington, D. C.
Armstrong, Esther P., Gaithersburg
*Armstrong, Herbert E., Ilchester
Ashton, Mary M., Monrovia
Aspinall, Dorothy L., Frostburg
Babka, Margaret K., Edgewood
Badenhoop, Hermine, Rockville
Bailey, Emma L., Centreville
Baker, Osla L., Damascus
Baker, Pauline, Emmitsburg
Baker, Thelma L., Williamsport
Baldwin, Frank G., Jr., Orange, Conn.
Barber, Pauline R., Charlotte Hall
Barnard, Virginia E., Westernport
Barnsley, Effie G., Rockville
*Barrows, Wendell P., Washington, D. C.
*Bauer, Alice M., Baltimore
Beall, Dorothy I., Chevy Chase
Beane, Bessie A., Landover
*Beatty, William P., College Park
Beauchamp, Frank P., Baltimore
Becraft, Mabel V., Washington Grove
*Bekkedahl, Norman, Washington, D. C.
Beller, May V., Washington, D. C.
*Bennett, Dill G., Sharptown
Bennett, Ida R., Flintstone
Benson, Blanche F., Sandy Spring
Bickford, Eleanor C., Berwyn
*Bittinger, Mildred, Hagerstown
Bixler, Evelyn T., Washington, D. C.
Blake, Margaret D., Baltimore
*Blanks, Carolyn, Washington, D. C.
Blentlinger, Charles L., Frederick
Blumberg, Helen M., Baltimore
*Blunt, Forrest P., Mardela Springs
Boone, Athol L., Crisfield
Boswel, Mary T., Clear Spring
Bourdeaux, Geneve, Washington, D. C.
Bowers, Alfred E., Penola, Va.
Bowie, Alice C., Mitchellville
Bowling, Ellen H., Marlboro
Boyce, Helen M., Rhodesdale
*Brackbill, Frank Y., Berwyn
Bradley, Sarah, Cherokee, N. C.
Brain, Earl F., Frostburg
Brashears, Florence E., Landover
Bray, Harriet E., Hyattsville
Bray, Nona D., Hyattsville
*Brewer, Margaret, College Park
Bromley, Annie C., Stockton
Bromley, Ida L., Stockton
Bromley, Sue E., Stockton
Brookbank, Annie V., Charlotte Hall
Brooks, Alice S., Washington, D. C.
Brooks, Elsie M., Poolesville
Brooks, Helen G., Baltimore
Brouillet, George H., Holyoke, Mass.
Brown, Allene P., Richmond, Va.
Brown, Kathrine, Centreville
Brown, Ronald F., Washington, D. C.
Brown, Virgil L., Hagerstown
Browning, Avery, Myersville
Brunner, Mabel V., Chevy Chase
Bryan, Helen R., Washington, D. C.
Buck, Myrtle M., Upper Marlboro
*Buckler, Milburn A., Prince Frederick
Burall, Margaret O., Mt. Savage
Burdette, Ola L., Washington, D. C.
Burger, Mary H., Frederick
Burhoe, Sumner O., Westboro, Mass.
Burns, Viola M., Williamsport
Burton, Julia, Washington, D. C.
Busbey, Ridgaway J., Laurel
Bussard, Howard W., Thurmont
*Butler, Margaret E., Washington, D. C.
*Butts, Naomi O., Gaithersburg
Butz, Harry P., Washington, D. C.
Cadle, Pauline E., Frederick Junction
Caples, Delmas, Reisterstown
*Carolus, Robert L., Sterling, Ill.
Carpenter, Zelda N., Washington, D. C.
Carrick, Mary A., Washington, D. C.
Carroll, Mary V., Rockville
Carter, Mary J., Washington, D. C.
Casteel, Virginia E., Oakland
*Castle, Francis M., Brownsville
Chambers, Alsie P., Brunswick
Chambers, Pauline P., Centreville
Chandler, Miriam T., Nanjemoy
Charlton, Marion J., Williamsport
Chatham, Elizabeth E., Salisbury
Christensen, Lillian M., Hyattsville
Claflin, Marguerite A., College Park.
Clayton, Louella M., Mt. Rainier
Coakley, Francis E., Williamsport
Cochran, Josephine B. S., Warwick
Coddington, Grace, Friendsville
*Coe, Mrs. Johnnie B., Washington, D. C.
Coffman, Naomi H., Fairplay
Collins, Madaline C., Westernport
Condiff, Margaret M., Solomons

Conk, Robert H., Long Branch, N. J.
Connelly, Mary C., Centreville
Connor, Ruth F., Washington, D. C.
Cooke, Virginia B., Washington, D. C.
*Cooper, Luther A., Baltimore
Copes, Bessie E., Silver Spring
Copes, Ethel M., Silver Spring
Copes, George N., Baltimore
Copes, Grace R., Silver Spring
*Cordner, Howard B., Provo, Utah
Cordrey, Myra E., Pittsville
Coursey, Carolyn I., Grasonville
Cowden, Helen E., Clear Spring
Craig, Madie E., Brentwood
Crain, Naomi V., Washington, D. C.
Crew, Achsah V., Kennedyville
Crist, Sarah A., Luke
Crocker, Beatrice W., Silver Spring
Crosby, Muriel E., Washington, D. C.
Crosby, Virginia E., Fair Haven
Crow, Kathleen G., Frostburg
Cullen, Myrtle M., Crisfield
*Culler, Pearl L., Frederick
*Culley, Alfred E., Catonsville
Curbow, Frances L. B., Hyattsville
Currie, Dora K., Washington, D. C.
Curtis, E. Gertrude, Crisfield
Custer, Paul Y., Grantsville
Custis, Savilla, Princess Anne
Dallas, Betty, Salisbury
Dashiell, Edith W., Fruitland
Davis, Althea W., Barton
Davis, Elizabeth V., Annapolis
*Davis, Gertrude J., Frostburg
Davis, Margaret E., Frostburg
Davis, Thomas G., Frostburg
Dawson, Catherine H., Rockville
Day, Ellen M., Cabin John
*Day, James N., Rocks
*Day, Roger X., Midland
Dayton, Ann V., Westernport
DeBoy, Dora F., Solomons
*Deffenbaugh, Elizabeth J., Westminster
*Degman, Elliott S., White Salmon, Wash.
Deitz, Leah, Hyattsville
Dent, Mary C., Cedarville
Derr, Lloyd H., Monrovia
*Devilbiss, Wilbur, Middletown
DeWilde, Jennie D., Preston
Dickerson, Etta G., Snow Hill
Dickey, Helen R., Savage
*Diehl, William C., Clear Spring
*Ditman, Lewis P., Westminster
Ditto, Lucy C., Sharpsburg
Dorsey, Amanda, Woodbine
Dorsey, Edith L., Stoakley
Douglas, Marvel A., Washington, D. C.
Downey, Joseph T., Frostburg
Downing, Esther E., Naylor
Downton, Lydia M., Cumberland
Dressel, George L. A., Mt. Rainier
Drew, Helen, Washington, D. C.
Dronenburg, Margaret E., Ijamsville
*Dubel, Omer J., Myersville
Duckwall, Margaret M., Berkeley Springs, W. Va.
Dudderar, Dorothy F., Frederick Junction
Dudrow, Helen, Walkersville
*Duffey, George L., Denton
Dunnigan, M. Regis, Washington, D. C.
Early, Angela D., Brandywine
Earnshaw, Virginia H., Riverdale
Ebersole, Pauline R., Hagerstown
*Eckert, Evelyn V., Landover
Edelen, Marybeth B., Upper Marlboro
*Edmond, Joseph B., Saginaw, Mich.
Edmonds, Olive S., Rockville
*Edwards, D. Robert, Takoma Park
Elgin, Mary A., Poolesville
Elliott, Sarah V., Laurel
Ellis, Alma M., Avenue
Ellis, Norman L., Salisbury
Emerson, Lelia A., Williamsport
Emmons, Elizabeth S., Suitland
Emory, Nellie H., Centerville
*Endslow, J. S., Streett
*Epstein, Herman, Centreville
Erwood, Florence D., Salisbury
*Essex, Alma, Lanham
Essig, Estella M., Taneytown
Eskridge, Lydia C., Baltimore
Etzler, Freda L., Libertytown
Etzler, George L., Woodsboro
*Evans, Frederick H., Washington, D. C.
Everline, Pearl, Frostburg
Ewald, August L., Jr., Baltimore
Eyler, Beulah C., Cumberland
Farr, Minnie E., Wayside
*Feddeman, William C., Millington
*Ferguson, Lilly O., Cecilton
*Ferguson, Marion H., Ellicott City
Ferguson, Mary A., Cecilton
Figgs, Ruth E., Delmar, Del.
Finney, Gladyse K., Fredericksburg, Va.
Finzel, Erma P., Washington, D. C.
Firey, Joseph P., Clear Spring
Fisher, H. Mildred, Salisbury
Fitz, Beulah E., Menlo, Iowa
Fitzgerald, Charlotte N., Princess Anne
*Fletcher, L. A., Bennettsville, S. C.
Flinn, Nannie R., Kensington
Flook, Howard O., Burkettsville
Flory, Maurice P., Harman
*Floyd, Rudolph S., Indian Head

Floyd, Trevoe L., Indian Head
Fogle, Roger E., New Midway
Folk, Fern L., Grantsville
Footen, Margaret, Washington, D. C.
Forshee, Edith D., Washington, D. C.
Foster, Evelyn D., Washington, D. C.
*Fox, Eston F., Big Spring
Franklin, John M., Oakland
Freimann, Catherine E., Baltimore
French, Doris P., Brentwood
*French, Edward S., Brentwood
Frere, Margaret E., Tompkinsville
Fulgham, Evel W., Washington, D. C.
Fulks, Clara E., Gaithersburg
*Gardner, George P., Middletown
Gatchell, Margaret R., Joppa
Gerbode, Elsa J., Baltimore
Getty, Frank J., Grantsville
Gibbons, Maud, Croom
Gibson, Margaret H., Washington, D. C.
Giffford, Charles H., Washington, D. C.
*Gifford, George E., Rising Sun
Gilds, Franklin S., Taneytown
Giles, Ercelle P., Chatham, Va.
Gilliss, Miriam A., Quantico
Gingell, Helen V., Berwyn
Glass, Maryvee, Clarendon, Va.
*Glenn, Wilbur J., Friendsville
Glover, Coella J., Takoma Park
Goldstein, Morton A., Baltimore
*Goldstein, Samuel W., Baltimore
Goode, Hazel W., Brunswick
*Goodrich, Hattie E., Washington, D. C.
Gordy, Martha, Rhodesdale
Gould, John J., Baltimore
Gould, Kathleen V., Baltimore
Graham, Helen E., Hyattsville
Gray, Jane E., Port Tobacco
Graybill, Elsie N., Buena Vista, Va.
Grayson, Dorothy L., Brownsville
Green, Robert E., Chestertown
Griffin, Wilsie F., Salisbury
Griffith, Eva E., Frostburg
Griffith, Mary I., Forestville
*Grindle, John E., Lonaconing
Grindle, Rhea, Lonaconing
Gunby, Clara C., Salisbury
Haddaway, Ella, Oxford
Hall, Annie L., Glenndale
Hall, Harvey B., Prince Frederick
*Hall, Ruth N., Prince Frederick
*Halverson, Henrietta R., Laurel
Hanna, Mary, Westernport
Hannon, Loretto, Frostburg
Harbaugh, Eva L., Sabillasville
Harding, Marguerite S., Detroit, Mich.
Harkins, Regina F., Bel Air
Harris, Walter G., Washington, D. C.
Harrison, Junie L., Weverton
Harry, Helen L., Pylesville
Hartge, William P., Galesville
Hatcher, Margery S., Washington, D. C.
Hatfield, Marcus R., Washington, D. C.
Haupt, Mary R., Myersville
Hauver, Charles T., Myersville
Havell, Robert B., Washington, D. C.
Hayden, Margaret V., Westernport
Haynie, A. Laura, Washington, D. C.
Hays, Carlotta A., Braddock Heights
Heagy, Albert B., Washington, D. C.
Hearne, Fay F., Salisbury
Hearne, Stella E., Salisbury
Heil, Myra B., Washington Grove
Heilig, Ruth M., Washington, D. C.
Henderson, Jane, Washington, D. C.
*Henderson, Perlie deF., Takoma Park
Hersberger, Arthur B., Barnesville
Hersperger, Virginia G., Poolesville
Hess, Harry C., Jr., Baltimore
Hetzel, Fred, College Park
Hicks, Ann E., Fairchance, Pa.
Hicks, Ara L., Dickerson
Hicks, E. Russell, Hagerstown
Higgins, Horace R., Washington, D. C.
Hill, Elsie M., Cumberland
Hill, Mary J., Kennedyville
Hilterbrick, Iva M., Taneytown
Hoar, Robert E., Ridgewood, N. J.
Hodson, Mary D., Vienna
Hoffmaster, Paul L., Middletown
*Holland, Lawrence G., East New Market
Holloran, Margaret A., Chevy Chase, D. C.
Holloway, Betty, Salisbury
Holmes, Miriam M., College Park
*Holter, Ruth K., Frederick
Hoover, Edna M., Sharpsburg
Hoover, Joseph S., Washington, D. C.
Hopkins, Amy L., Gambrills
Hopkins, Edward S., Baltimore
Hopkins, Eula C., Streett
Horner, Theresa W., Monie
Horner, William E., Monie
Horvath, Eva E., Washington, D. C.
House, Arthur B., College Park
Howard, Adrienne R., Hyattsville
Howard, Della E., Sharptown
Howes, Isabel R., Sykesville
Hudson, Marie L., Berwyn
Huffington, Ortha E., Ingleside
Hughes, Emma M., Cardiff
Hughes, Richard C., Washington, D. C.
*Hull, George R., Woodsboro
Hunt, Lula W., Galesville
Hutzell, Frank L., Hagerstown

Hutzelle, Alice B., Sharpsburg
Hyde, Jennie M., Barton
Hyland, Mary N., Federalsburg
*Irving, Reid, Waterbury
Isenberg, Maude R., East New Market
Itneyer, Erma L., Hagerstown
Itneyer, Nellie V., Hagerstown
James, Georgie K., Washington, D. C.
James, Jennie P., Mt. Rainier
Jarrell, Evelyn R., Hyattsville
Jarvis, Kendall P., Berlin
*Jewell, Edgar G., Glen Echo
Jewell, Florence M., Betterton
Jewell, Ivy M., Centreville
Johnson, Edwin F., Williamsport
Johnson, Esther D., Pocomoke City
Johnson, Virginia M., Cumberland
*Jones, Helen C., Washington, D. C.
Jones, Mabel O., Stockton
Jones, Robert W., Frostburg
Jones, Ruth S., Olney
Kadan, James E., Takoma Park
Kalbaugh, Ralph W., Luke
Kalbaugh, Virginia M., Luke
Kaufman, Gee L., Washington, D. C.
*Kaveler, Herman H., St. Charles, Mo.
Kelby, J. Marie, Bel Air
Kemp, Gladys, Frostburg
Kent, Benjamin G., Baltimore
Kerby, Olive P., Benning, D. C.
Kershner, Susan G., Williamsport
*Kieeny, Reverdy E., Middletown
King, Helen I., Frederick
King, Mary L., Germantown
Kingdon, Mary, Rockville
Kiracofe, Ilda M., Hagerstown
*Klein, Truman S., Clinton
Klinefelter, Harriett A., Baltimore
Klinger, Mary, Keedysville
Knowles, Eleanor E., Seat Pleasant
Kochenderfer, Miles C., Elkins, W. Va.
Koldewey, Adolph H., Catonsville
Koons, Mary E., College Park
*Kreider, Hazel B., Hyattsville
*Kundahl, Rose E., Washington, D. C.
Lake, Archibald M., Rockville
*Lane, Ruth B., Washington, D. C.
Lawson, Emily, Crisfield
*Lawson, Magdalena H., Bridgeport, W. Va.
Lehr, Emily C., Bethesda
*Lesher, Mary M., Williamsport
Leyking, William H., Washington, D. C.
Lines, Helen J., Silver Spring
Livingstone, Nannie D., Frostburg
Lloyd, Madison E., Cockeysville
Long, Effie I., Williamsport
Loper, Albert K., Cumberland
Lore, Verna N., Solomon's Island
Lovell, Mary H., Brentwood
Lowe, Cletus D., Shepherdstown, W. Va.
Lowe, Ora B., Pylesville
Lucas, Ada, Cumberland
Lunenburg, Lillian I., Washington, D. C.
Lyddane, Alice M., Takoma Park
*Macdonald, Elizabeth C., Silver Spring
Mace, Nina D., Washington, D. C.
Macgill, Nell R., Garrett Park
Mackey, Pauline L., Washington, D. C.
Macoughtry, Helen G., Washington, D. C.
Madison, Dollie M., Williamsport
Mahoney, Ruth K., Washington, D. C.
*Malcolm, Wilbur G., Hyattsville
Manley, John F., Midland
Manning, Maud, Accokeek
Marshall, Thomas C., Washington, D. C.
Martin, Katherine M., Smithsburg
*Matthews, William A., Portsmouth, Va.
Maxwell, Marion W., Washington, D. C.
May, Marian L., Hyattsville
Maybury, Frances M., Piedmont, W. Va.
McCallister, William R., Baltimore
McCandlish, Robert J., Hancock
McClurg, Gregg H., Washington, D. C.
McComas, Reatha, Monkton
McCoy, Maud V., Beltsville
McGee, Lillian, Savage
McGrady, Helen R., Rising Sun
*McMenamin, David, Chestertown
McPartland, Anna M., Lonaconing
*McRae, Ruth H., Riverdale
Mead, Irene C., College Park
*Meckling, Frank E., Jr., Takoma Park
Meese, Minnie M., Barton
Mellichampe, Susanne S., Washington, D. C.
Merrick, Charles P., Ingleside
Messenger, Winifred, Bridgeport, W. Va.
Messick, Florence A., Tyaskin
Messick, Leah A., Hebron
Metcalf, Francis O., Mechanicsville
Metcalfe, Howard E., Takoma Park
Miller, Anne, Spencerville
*Miller, Edmund E., Takoma Park
Miller, Ottie E., Brunswick
Mister, Fulton T., Baltimore
Monred, Ravenell A., Gaithersburg
Moore, Medora M., East New Market
Moreland, Viola M., Cumberland
Morford, Elizabeth L., Washington, D. C.
Morgan, Claudine, Lonaconing
Morningstar, Mary A., Bethesda
Morris, Elizabeth I., Delmar, Del.
Moser, Edward F., Thurmont

*Moss, Rosa M., Clarendon, Va.
Mueller, Harold W., Cordova
Myers, Blanche, Rockville
Myers, Lillian C., Cumberland
Myers, Mabel E., Frostburg
Neder, Edith W., Mt. Savage
Neeper, Oma C., Cardiff
Neff, Virginia K., Frostburg
Neidhardt, John W., Baltimore
Nelson, Thorman A., Washington, D. C.
Nicholson, James R., Rockville
Niland, Kathryne G., Cumberland
Nolan, Edna P., Mt. Rainier
Nordwall, Dorothy E., Princess Anne
*Norris, Abell A., Jr., Gaithersburg
*Norris, George W., Annapolis
Nowell, William P., Washington, D. C.
O'Dell, Winifred E., Randallstown
O'Farrell, Mary C., Mt. Grove, Va.
Oldenburg, Lillian J., Hyattsville
Oldenburg, Margaret K., Hyattsville
*Oliver, Gerald E., Takoma Park
*Owens, Kathaleen H., Willsboro, N. Y.
Palmer, Mary E., Palmers
Palmer, Mary L., Middletown
Parker, Hannah S., Havre de Grace
Parker, Henry W., Berlin
Parker, Marian D., Pittsville
Parlato, Edward J., Derby, Conn.
Parsons, Alma J., Stockton
Peaseley, Virginia, College Park
Pederson, Virginia E., Washington, D. C.
Penman, Christene, Mt. Rainier
*Peterman, Walter W., Clear Spring
Petherbridge, Annie C., Nutwell
Phillips, Dorothy R., Takoma Park
Phillips, Hazel H., Barnesville
Pickett, Annie S., Mt. Airy
Piozet, Nina C., Hyattsville
*Pittman, E. Virginia, Luray, Va.
Plaza, Galo, Bloomfield, N. J.
Poffenberger, Elmer L., Sharpsburg
Potter, Mary A., Rockville
Powell, Jane, Brookeville
Powell, Rachel D., Brookeville
Powers, Vivian, Cumberland
Preston, Ethel A., White Hall
Price, John H., Centreville
Price, Louise S., Church Hill, Tenn.
Proskey, Mary L., Annapolis
Puffinburger, Recie I., Cumberland
Pumphrey, Nellie L., Upper Marlboro
*Purcell, Jo Y., South Boston, Va.
Purdy, John B. S., Washington, D. C.
Pusey, Lola M., Marion
*Pyle, Theresa P., Washington, D. C.
Quick, Madge C., Benning, D. C.
Radice, Julius J., Washington, D. C.
Raley, Nellie, Frostburg
Ramsay, M. Elizabeth, Washington, D. C.
*Raper, Paul A., Welcome, N. C.
Rasin, Anna C., Kennedyville
*Rasin, Harry R., Millington
Rayne, Mabel A., Willards
Rech, Charles E., Harney
Reed, Della B., Washington, D. C.
*Reed, Grace, Baltimore
Reed, Ruth V., Baltimore
Reeves, Eleanor E., Milestown
Reich, Elinor G. J., LaPlata
Reich, R. H. Lee, LaPlata
Reichter, Ella L., Williamsport
Remnsnider, Laura, Pawnee, Okla.
*Remsburg, Charles H., Middletown
*Remsburg, Harold A., Smithburg
Rice, Betty, Hyattsville
Rice, Helen, Jefferson
Rice, Ruth B., Cumberland
Richardson, Helen A., Norrisville
Richardson, Mildred M., Willards
*Richter, Gerald E., Fall River, Mass.
Rickards, Gladys E., Ridgely
Ridout, Evalyn S., Annapolis
Riehl, Louis M., Lansdowne
*Rigdon, Wilson O., Cardiff
Ringler, Margaret K., Flintstone
Rison, Jessie F., Rison
*Rizer, Richard T., Mt. Savage
Roberts, George H., Washington, D. C.
Roberts, Grace E., What Cheer, Iowa
Roberts, Richard R., Hyattsville
Robertson, Elizabeth K., Rockville
Robertson, Lillian G., Brentwood
Robinson, Blanche M., Sharptown
Robinson, Daniel R., Brooklyn, N. Y.
*Robinson, Dorothy M., Streett
Rockwell, Paul O., Baltimore
Rodier, Katherine E., Washington, D. C.
Roome, Henry S., Hyattsville
*Rosasco, Adelia E., Hyattsville
Routson, Urith A., Uniontown
Rowe, Mildred R., Smithsburg
Rowe, Sarah C., Smithsburg
Royer, Eva K., Sabillasville
Royer, Samuel T., Sabillasville
Rude, Gilbert B., Washington, D. C.
Rymer, Agnes W., Hyattsville
Ryon, Elsie E., Waldorf
Savage, John B., Baltimore
Savage, John W., Rockville
*Savage, Mary E., Rockville
Savage, Verna B., Friendsville
*Scarborough, Walter B., Washington, D. C.

Schindler, George E., Watertown, Mass.
Schott, Dorothy S., Rockville
*Schott, Loren F., Rockville
*Scruton, Herbert A., Baltimore
Selby, Evelyn M., Germantown
Sellers, Kathryn L., Glenndale
Semler, Dorothy H., Hagerstown
Shanholtz, Mary S., Washington, D. C.
Shank, Frances V., Hagerstown
Shank, Grayson A., Taneytown
Shank, I. Keller, Hagerstown
Shann, Elizabeth H., Trenton, N. J.
Shapiro, Morris, Baltimore
Shepard, Eleanor G., Hyattsville
Shockley, Bryan L., Eden
Shockley, Dorothy A., Snow Hill
Shockley, Ethel E., Snow Hill
Shoemaker, Edna L., Cumberland
Shoemaker, Maynard P., Jr., Chevy Chase
Shreve, Adalyn B., Hyattsville
Shriley, Helen E., Rock Hall
*Shugart, Gervis G., Bel Air
*Shulman, Emanuel V., Baltimore
Sibley, Flora E., Gaithersburg
Siegel, Rose E., Baltimore
Silverman, Gertrude, Takoma Park
Sims, Olivia K., Washington, D. C.
Skelley, Florence M., Oldtown
Sleeman, Mary V., Frostburg
Sleeman, Ursula, Frostburg
Smack, Ana M., Girdletree
Smith, Francis D., Vale Summit
Smith, Klora E., Myersville
Smith, Lena, Oriole
Smith, Myrtle N., Takoma Park
*Smith, Paul W., Washington
*Smith, Thomas B., Bedford, Pa.
*Smith, Wallace V., Takoma Park
Snook, Kathryn A., Frederick
*Snouffer, Helen J., Buckeystown
Snyder, Charles H., Clear Spring
Snyder, Gerald T., Windber, Pa.
Soper, Jessie G., Brandywine
Soper, Kathryn E., Clarksburg
*Sowers, Lowell M., Clear Spring
*Sparks, Walter M., Ilchester
Speicher, John A., Accident
*Spence, Mary, College Park
Spencer, Oscar L., Washington, D. C.
Spicknall, William L., Hyattsville
Springer, Dorothy J., Hagerstown
Sprinkel, Starr P., Hyattsville
Staggers, Elaine J., Laurel
Stapleton, Margaret M., Washington, D. C.
*Startt, Walter S., Chestertown
Stebbing, Evalyn V., Port Deposit
Stegmaier, Esther E., Cumberland
*Stenger, Wilbur J., Chestertown
Sterling, Ella J., Washington, D. C.
Sterling, Priscilla, Crisfield
*Stevens, Edwin H., Aberdeen
Stevens, Helen, Washington, D. C.
Stewart, Caroline L., Glenndale
*Stewart, Erma B., Oxford
*Stickley, Elizabeth W., Kensington
Stimpson, Edwin G., Washington, D. C.
Stinnette, Edith B., Havre de Grace
Stoetzer, Mabel, Parkersburg, W. Va.
Stone, DeForest S., Takoma Park
Stoops, Jonelle E., Frostburg
*Strite, John H., Clear Spring
Stull, Charles C. T., Lewistown
Symons, Isabel M., College Park
*Tarbell, William E., Millersville
Tavenner, Margaret V., Hyattsville
Tawney, Chester W., Havre de Grace
Taylor, Charlotte M., College Park
*Taylor, James E., Rock Hall
*Taylor, Letha E., Centreville
Taylor, Naomi C., Tyaskin
Taylor, Ruth E., Tyaskin
*Taylor, Thomas, Oxford
Taylor, Vinette G., Landover
Tennant, Anna W., Cumberland
Ternent, Effie, Gaithersburg
Thomas, Catherine E., Frostburg
*Thomas, Julia A., Centreville
Thomas, Mary E., Frederick
Thompson, Alma, Streett
*Thompson, G. P., Baltimore
Thompson, Katharyn L., Boonsboro
Thompson, Nina M., Boonsboro
Thompson, Opal S., Washington, D. C.
*Tignor, Jesse C., Ashland, Va.
Tignor, Lizzie B., Clarksville
Todd, Bradye R., Wingate
Todd, Edith G., Wingate
Tongue, Sara J., Coster
Townsend, Henrietta H., Ocean City
Townsend, Louise S., Girdletree
Trump, Miriam E., Takoma Park
Twigg, Margaret M., Oldtown
Umhau, Katharine S., Washington, D. C.
Underwood, Harriett V., Washington, D. C.
Upton, Emma H., Dickerson
Urciolo, Raphael G., Washington, D. C.
Veitch, Fletcher P., College Park
Venezky, Julian B., Hyattsville
Vickers, Wanda W., Jesterville
Voshell, Ruth E., Centreville
*Waldron, Mercedes M., Washington, D. C.
Walk, Mildred D., Lonaconing

Wallace, Charlotte L., Mechanicsville
Ward, Hilda M., Baden
Ward, S. Chester, Paris
Waters, Julia G., Germantown
Watkins, Gladys E., Rockville
Watkins, Hazel M., College Park
Watkins, Robert S., Jessup
Watts, Edna E., Washington, D. C.
Watts, Margaret F., Washington, D. C.
Wayson, Kathryn M., Davidsonville
Weagly, Margaret H., Ellicott City
*Weagly, Robert H., Westminster
Weaver, Louise E., Hancock
*Weinberger, John H., Zionsville, Pa.
Weitzman, Jacob D., Washington, D. C.
*Westfall, Benton B., Buckhannon, W. Va.
*Wetherill, John P., Kensington
Wheeler, Elsie S., Silver Spring
White, Mary C., Salisbury
Whitelock, Hannah C., Perryville
Wick, Robert M., Washington, D. C.
Wilcox, Louise, Washington, D. C.
Wilhide, Amy R., Pawnee, Okla.
Williams, Chester M., Washington, D. C.
*Williams, Christine M., Washington, D. C.
Williams, Estelle D., Frostburg
Williams, Kathryn T., Earlville
Williams, Leta R., Prince Frederick
Willson, Gertrude B., Rock Hall
Wilson, William S., Salisbury
Windsor, Helen M., East New Market
Winn, Juanita S., Washington, D. C.
Winner, Margaret E., Frostburg
Winters, Leona B., Maugansville
*Witt, Margaret L., Johnstown, Pa.
*Wolf, Margaret M., Hyattsville
Wolfe, Kathleen, Frostburg
Wooden, Virginia J., Hyattsville
Wooton, Helen C., Salisbury
Wright, Hazel M., Riverdale
Yantz, Mary G., Mt. Savage
Yonker, Bernard O., Flintstone
Young, George B., Clear Spring
Young, Tom C., Middleburg, Va.
Zalph, Isidor S., Washington, D. C.

*Graduate Students

SUMMARY OF STUDENT ENROLLMENT AS OF MAY 1, 1930

College of Agriculture	154
College of Arts and Sciences	625
School of Dentistry	349
College of Education	137
Extension Courses	175
College of Engineering	275
Extension Courses	363
Graduate School	143
College of Home Economics	76
School of Law	157
School of Medicine	419
School of Nursing	104
School of Pharmacy	359
Summer School, 1929	721
Practice School	77
Grand Total	4,134
Duplications	138
Net Total	3,996

GENERAL INDEX

Any further information desired concerning the University of Maryland will be furnished upon application to

DR. RAYMOND A. PEARSON, President,

College Park, Md.