

COLLEGE

1935-1936



SWARTHMORE, PA.

Volume XXXIII, No. 2 Tenth Month, 1935



CATALOGUE NUMBER SIXTY-SEVENTH YEAR 1935-1936

SWARTHMORE, PENNSYLVANIA

Volume XXXIII

Number 2

Tenth Month, 1935

Entered at the Post-Office at Swarthmore, Pa., as second-class matter.

CALENDAR FOR 1935

SEPTEMBER OCTOBER NOVEMBER DECEMBER S M T W T F S S M T W T

CALENDAR FOR 1936

JANUARY	FEBRUARY	APRIL					
SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS				
I 2 3 4	I	1234567	I 2 3 4				
5 6 7 8 0 10 11	2 2 4 5 6 7 8	8 0 10 11 12 13 14	5 6 7 8 9 10 11				
12 12 14 16 16 17 18		16 17 18 10 20 21	12 13 14 15 16 17 18				
	16 17 18 10 20 21 22	02 02 04 07 06 07 08	10 20 21 22 22 24 25				
19 20 21 22 23 24 25	10 1/ 18 19 20 21 22	22 23 24 25 20 27 20	19 20 21 22 23 24 23				
26 27 28 29 30 31	23 24 25 26 27 28 29	29 30 31	20 27 28 29 30				
MAY	JUNE	JULY	AUGUST				
SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS				
· I 2	123456	I 2 3 4	I				
3 4 5 6 7 8 9	7 8 9 10 11 12 13	5 6 7 8 9 10 11	2 3 4 5 6 7 8				
10 11 12 12 14 15 16	14 15 16 17 18 19 20	12 13 14 15 16 17 18	9 10 11 12 13 14 15				
17 18 10 20 21 22 22	01 02 02 04 05 06 07	TO 20 21 22 22 24 25	16 17 18 10 20 21 22				
1/ 10 19 20 21 22 23	21 22 23 24 25 20 27	19 20 21 22 23 24 23	22 24 25 26 27 28 20				
24 25 20 27 28 29 30	28 29 30	20 27 28 29 30 31	23 24 25 20 27 20 29				
31			30 31				
SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER				
SMTWTFS	SMTWTFS	SMTWTFS	SMTWTFS				
12345	I 2 3	1234567	I 2 3 4 5				
6 7 8 9 10 11 12	4 5 6 7 8 9 10	8 9 10 11 12 13 14	6 7 8 9 10 11 12				
12 14 15 16 17 18 10	11 12 12 14 15 16 17	15 16 17 18 19 20 21	13 14 15 16 17 18 19				
20 21 22 22 24 25 26	18 10 20 21 22 22 24	22 22 24 25 26 27 28	20 21 22 23 24 25 26				

CALENDAR FOR 1937

27 28 29 30 31

25 26 27 28 29 30 31 29 30

27 28 29 30

	J	AN	U	AR	Y			FI	EB	RU	AR	Y					MA	AR	CH		
s	м	т	w	т	F	s	s	м	т	w	т	F	s		s	м	т	w	т	F	s
					I	2		I	2	3	4	5	6	•		I	2	3	4	5	6
3	4	5	6	7	8	9	7	8	9	10	II	12	13		7	8	9	10	II	12	13
10	II	12	13	14	15	16	14	15	16	17	18	19	20		14	15	16	17	18	19	20
17	18	19	20	21	22	23	21	22	23	24	25	26	27		21	22	23	24	25	26	27
24	25	26	27	28	29	30	28								28	29	30	31			
31																					
																		1.1	-		
		A	PR	IL					N	IA	Y						J	UN	E		
s	м	A] T	PR: w	IL T	F	s	s	м	N T	IA' w	Y T	F	S		s	м	Л	UN w	Е т	F	s
S	м	A] T	PR: w	IL T I	F 2	s 3	s	М	Т	MA w	Ү т	F	S I		s	М	J T I	UN w 2	Е т З	F 4	s 5
s 4	м 5	A] T 6	PR w	IL T I 8	F 2 9	s 3 10	s 2	м 3	N T 4	IA w 5	Ү т 6	F 7	s I 8		s 6	м 7	J T I 8	UN w 2 9	Е т 3 10	F 4 11	s 5 12
s 4 11	M 5 12	A] T 6 13	PR: w 7 14	IL T 1 8 15	F 2 9 16	s 3 10 17	s 2 9	м 3 10	N T 4 11	4A w 5 12	Ү т 6 13	F 7 14	s 1 8 15		s 6 13	м 7 14	J T I 8 15	UN 2 9 16	Е т 3 10 17	F 4 11 18	s 5 12 19
s 4 11 18	M 5 12 19	A] T 6 13 20	PR: w 7 14 21	IL T 1 8 15 22	F 2 9 16 23	s 3 10 17 24	s 2 9 16	м 3 10 17	N T 4 11 18	IA' w 5 12 19	Ч т 6 13 20	F 7 14 21	s I 8 15 22		s 6 13 20	м 7 14 21	J T I 8 15 22	UN w 2 9 16 23	E T 3 10 17 24	F 4 11 18 25	s 5 12 19 26
s 4 11 18 25	M 5 12 19 26	A] T 6 13 20 27	PR w 7 14 21 28	IL T 1 8 15 22 29	F 2 916 23 30	s 3 10 17 24	s 2 9 16 23	м 3 10 17 24	N T 4 11 18 25	IA w 5 12 19 26	Т Т 6 13 20 27	F 7 14 21 28	s I 8 15 22 29		s 6 13 20 27	м 7 14 21 28	J T I 8 15 22 29	UN 2 9 16 23 30	E T 3 10 17 24	F 4 11 18 25	s 5 12 19 26
s 4 11 18 25	м 5 12 19 26	A] T 6 13 20 27	PR w 7 14 21 28	IL T 1 8 15 22 29	F 2 9 16 23 30	s 3 10 17 24	s 2 9 16 23 30	м 3 10 17 24 31	N T 4 11 18 25	IA w 5 12 19 26	Т 6 13 20 27	F 7 14 21 28	s 1 8 15 22 29		s 6 13 20 27	м 7 14 21 28	J T 1 8 15 22 29	UN 2 9 16 23 30	Е т 3 10 17 24	F 4 11 18 25	s 5 12 19 26

2





COLLEGE CALENDAR

1935-36

-)))) 0	
Ninth Month 19, 20, 21, 22, 23 . Freshman Placement Days	
Ninth Month 24Registration and Enrollment in Classes.	2:00 to
4:00 P. M.	
Ninth Month 25Classes begin at 8:00 A M	
Ninth Month 26Opening of Honors Work	
Tenth Month 1	
Eleventh Month 28	8
Twelfth Month 3Annual Meeting of the Corporation	
Twelfth Month 19 Christmas Recess begins at poop	

1936

First Month 7 Christmas Recess ends at 8:00 A M
First Month 23
Second Semester 10:20 A M to peop
First Month 22 Mid-Vear Examinations having at the
First Month 24 Second Semaster basing for IV
First Month 20 Mid Veer Degins for Honors Seminars
Second Month a
Second Month 3
Third Marth
Third Month 3
I nird Month 28Spring Recess begins at noon
Fourth Month 7Spring Recess ends at 8:00 A. M.
Fourth Month 11Somerville Day
Fifth Month 13 Seminars for Senior Honors Students end
Fifth Month 16Courses for Seniors end
Fifth Month 20
Fifth Month 22 Enrollment in Classes for the
First Semester 1026-27
Fifth Month 25 Senior Comprehensive Examinations having
Fifth Month 27 Final Examinations begin
Fifth Month 30
Sixth Month 2 Final Examinations and
Sixth Month r Meeting of the D the Car
Sixth Month 5
Sixth Month C
Sinch Mand
Sixth Month 7Baccalaureate Day
Sixth Month 8Commencement Day

1936-37

Ninth Month 17, 18, 19, 20, 21. Freshman Placement Days
Ninth Month 22Registration and Enrollment in Classes, 2:00 to
4:00 P. M.
Ninth Month 23Classes begin at 8:00 A M
Ninth Month 24Opening of Honors Work
Tenth Month 6
Eleventh Month 26
Twelfth Month 1Annual Meeting of the Corporation
Twelfth Month 18 Christmas Recess begins at noon

1937

First	Month	6 Christmas Recess ends at 8:00 A M
First 1	Month	21
		Second Semester, 10:30 A. M. to noon
First]	Month	21
First]	Month	22Second Semester begins for Honors Seminary
First 1	Month	28
Second	d Mont	th I

TABLE OF CONTENTS

	PAGE
Mup of Courses Grounds	2
TIMAD CALENDAR	2
COLLEGE CALENDAR	3
THE CORPORATION	6
THE CORFORMATION THE ROARD OF MANAGERS	6
COMMITTEES OF THE BOARD OF MANAGERS	7
THE FACULTY	8
Divisions and Departments	12
Standing Committees of the Faculty	13
Administrative Officers and Assistants	. 14
Honorary Curators of the Biddle Memorial Library	. 15
SWARTHMORE COLLEGE	. 10
Location	. 10
Buildings and Grounds	. 10
Religious Exercises	. 19
Student Organizations	. 20
Honorary Scholarship Societies	. 21
The Benjamin West Society	. 22
College Publications	. 22
The College Library	. 22
The Friends Historical Library	. 23
The William J. Cooper Foundation	. 24
The Arthur Hoyt Scott Horticultural Foundation	. 24
FELLOWSHIPS AND SCHOLARSHIPS	. 24
Fellowships	. 44
Scholarships	. 45
Medals	• 33
Prizes	• 34
Loans	• 34
Admission	35
Scholastic Aptitude Test	26
Subject Requirements	27
College Entrance Examination Board	28
Advanced Standing	30
REQUIREMENTS FOR GRADUATION	20
Work of the First Two Years	40
Work of the Last Two Years	. 40
General Courses	. 41
Honors Work	. 43
Combinations of Majors and Minors	. 44
Procedure for Admission to Honors Work	. 44
Course Advisers	. 45
System of Grades	45
REMOVAL OF CONDITIONS	. 46
SUMMER SCHOOL WORK	46
CO-OPERATION WITH NEARBY INSTITUTIONS	46
ATTENDANCE AT CLASSES AND COLLECTION	46
ABSENCES FROM EXAMINATION	

TABLE OF CONTENTS

	P	AGE
REQUIREMENT OF VACCINATION		47
INFIRMARY REGULATIONS		47
REGULATION AGAINST MAINTENANCE OF AUTOMOBILES		47
EXCLUSION FROM COLLEGE		47
Degrees		48
Bachelor of Arts		48
Bachelor of Science		48
Master of Arts		48
Master of Science		48
Advanced Engineering Degrees		48
Expenses		40
COURSES OF INSTRUCTION		51
Botany		51
Chemistry		51
Classics		23
Economics	•••	51
Engineering		62
English	•••	60
Fine Arts	•••	72
German Language and Literature	•••	14
History and International Relations		13
Mathematics and Astronomy	•••	70
Music	••	29
Philosophy and Religion	•••	86
Physical Education for Men	•••	80
Physical Education for Women	••	09
Physics	••	91
Political Science	••	94
Psychology and Education	•••	90
Romance Languages	•••	99
Zoölogy	1	04
STUDENTS, 1935-36	1	05
GEOGRAPHICAL DISTRIBUTION OF STUDENTS		00
Holders of Fellowships		44
Hannah A. Leedom Fellowship		43
Joshua Lippincott Fellowship		43
John Lockwood Memorial Fellowship		45
Lucretia Mott Fellowship		20
Sigma Xi Research Fellowship		31
Martha E. Tyson Fellowship	1	34
HOLDERS OF THE IVY MEDAL		34
Holders of the Oak Leaf Medal	1	30
Degrees Conferred in 1935	1	37
Index		30
	I.	41

5

THE CORPORATION

CHARLES F. JENKINS, President, 232 South Seventh Street, Philadelphia. HOWARD COOPER JOHNSON, Vice-President, 801 Market Street, Philadelphia. HETTY LIPPINCOTT MILLER, Secretary, Riverton, N. J. J. ARCHER TURNER, Treasurer, Swarthmore, Pa.

BOARD OF MANAGERS

Emeritus

CAROLINE H. WORTH, Coatesville, Pa. JOANNA WHARTON LIPPINCOTT, 1712 Spruce Street, Philadelphia.

Term expires Twelfth Month, 1935

EDWARD MARTIN, M. D., Orchard Farm, Beatty Road, Media, Pa. LUCY BIDDLE LEWIS, Lansdowne, Pa. PHILIP M. SHARPLES, 202 Oaklawn Ave., South Pasadena, Cal. ISAAC H. CLOTHIER, JR. 801 Market Street, Philadelphia. BARCLAY WHITE, 22 N. 36th Street, Philadelphia. DAVID B. RUSHMORE, University Club, I W. 54th St., New York. RALPH J. BAKER, 989 Memorial Drive, Cambridge, Mass. ELEANOR STABLER CLARKE, Crumwald Farm, Wallingford, Pa.

Term expires Twelfth Month, 1936

CHARLES F. JENKINS, 232 South Seventh Street, Philadelphia. ROBERT H. WALKER, 914 Fidelity Building, Baltimore, Md. T. STOCKTON MATTHEWS, South and Redwood Streets, Baltimore, Md. MARY LIPPINCOTT GRISCOM, 314 East Central Avenue, Moorestown, N. J ADA GRAHAM CLEMENT, Meeting House Road, Jenkintown, Pa. LYDIA FOULKE TAYLOR, 23 Summit Avenue, Larchmont, N. Y. EDITH WILSON JACKSON, 317 North Chester Road, Swarthmore, Pa. J. ARCHER TURNER, 801 Harvard Avenue, Swarthmore, Pa.

Term expires Twelfth Month, 1937

HOWARD COOPER JOHNSON, 801 Market Street, Philadelphia. HETTY LIPPINCOTT MILLER, Riverton, N. J. ELSIE PALMER BROWN, 1622 Twenty-ninth Street, N. W., Washington, D. C. HENRY C. TURNER, 420 Lexington Avenue, New York. DANIEL UNDERHILL, 50 Court Street, Brooklyn, N. Y. ROBERT E. LAMB, 843 North Nineteenth Street, Philadelphia. PHEBE UNDERHILL SEAMAN, Jericho, N. Y.

Term expires Twelfth Month, 1938

REBECCA C. LONGSTRETH, Haverford, Pa. ROBERT PYLE, West Grove, Pa. EDWARD B. TEMPLE, Swarthmore, Pa. WALTER ROBERTS, M. D., 1921 Spruce Street, Philadelphia. FRANCES M. WHITE, 525 Walnut Lane, Swarthmore, Pa. CLEMENT M. BIDDLE, P. O. Box 743, City Hall Station, New York. EDWARD M. BASSETT, 1608 Walnut Street, Philadelphia. ELIZABETH WORTH SPACKMAN, Hill Farm, Coatesville, Pa.

COMMITTEES OF THE BOARD

COMMITTEES OF THE BOARD The President is ex-Officio a Member of Every Committee

Executive

HENRY C. TURNER HOWARD COOPER JOHNSON REBECCA C. LONGSTRETH LUCY BIDDLE LEWIS MARY LIPPINCOTT GRISCOM EDWARD B. TEMPLE ISAAC H. CLOTHIER, JR. ROBERT E. LAMB

Edward B. Temple Walter Roberts Robert H. Walker

LUCY BIDDLE LEWIS ROBERT PYLE ELSIE PALMER BROWN HETTY LIPPINCOTT MILLER HENRY C. TURNER

ROBERT E. LAMB

ROBERT PYLE

PHILIP M. SHARPLES

CHARLES F. JENKINS

EDWARD MARTIN

WALTER ROBERTS

PHILIP M. SHARPLES

HOWARD COOPER JOHNSON

ISAAC H. CLOTHIER, JR.

FRANCES M. WHITE J. ARCHER TURNER ROBERT PYLE ADA GRAHAM CLEMENT BARCLAY WHITE LYDIA FOULKE TAYLOR EDWARD M. BASSETT CHARLES F. JENKINS

Finance and Audit

CLEMENT M. BIDDLE Edward M. Bassett Ralph J. Baker

Instruction and Libraries

FRANCES M. WHITE PHEBE UNDERHILL SEAMAN EDITH WILSON JACKSON DANIEL UNDERHILL EDWARD M. BASSETT

DAVID B. RUSHMORE

Building and Property

Mary Lippincott Griscom Clement M. Biddle Edward M. Bassett Barclay White

Trusts

ISAAC H. CLOTHIER, JR. T. STOCKTON MATTHEWS J. ARCHER TURNER

Observatory

CLEMENT M. BIDDLE BARCLAY WHITE DAVID B. RUSHMORE

Household

MARY LIPPINCOTT GRISCOM LYDIA FOULKE TAYLOR

ADA GRAHAM CLEMENT ELIZABETH W. SPACKMAN ELEANOR STABLER CLARKE

Nominating

HENRY C. TURNER HOWARD COOPER JOHNSON EDITH W. JACKSON

Edward Martin Charles F. Jenkins Frances M. White T. Stockton Matthews

7

THE FACULTY

FRANK AYDELOTTE, B.Litt., D.Litt., LL.D., President	
FRANCES B. BLANSHARD, M.A., Dean of Women	
HAROLD E. B. SPEIGHT, M.A., Dean of Men	
JOHN ANTHONY MILLER, Ph.D., Director of Sproul Observatory and Research	
Professor of Astronomy	
CEORGE ARTHUR HOADLEY D.Sc. Emeritus Professor of Physics	
GEORGE ARTHOR HORDEET, D.C., Emeritade Trojetter of English Lane	
The Internet DED ED High & Howard M Lenbing Professor of	
WILLIAM ISAAC HULL, PR.D., F.K. HISL. S., Howard M. Stakins Projector of	
Quaker History	
JESSE HERMAN HOLMES, Ph.D., Emeritus Professor of Philosophy Woylan	
ISABELLE BRONK, Ph.D., Emeritus Professor of the French Language and	
Literature	
*GELLERT ALLEMAN, Ph.D., Professor of Chemistry Wallingford	
JOHN RUSSELL HAYES, LL.B., Librarian of Friends Historical Library	
517 Elm Avenue	
HAROLD CLARKE GODDARD, Ph.D., Alexander Griswold Cummins Professor of	
Fnalish Whittier Place	
ROPERT CLARKSON BROOKS, Ph.D., Joseph Wharton Professor of Political	
Science	
CLIPIC DEVER NEWPORT Ph D. Professor of the German Language and Litera-	
CLARA PRICE NEWPORT, THED., Trojessor of the Communications	
ture Konner Dh D Emeritus Professor of Greek and	
HENRIETTA JOSEPHINE MIETEER, PH.D., Emericus Projessor of Creek and	
Latin	
ALFRED MANSFIELD BROOKS, A.M., Professor of Fine Arts 513 Enn Avenue	
SAMUEL COPELAND PALMER, Ph.D., Professor of Botany612 Ogden Avenue	
EVERETT L. HUNT, M.A., Professor of English	
HENRY JERMAIN MAUDE CREIGHTON, M.A., D.Sc., Professor of Chemistry	
515 Elm Avenue	1
*ETHEL HAMPSON BREWSTER, Ph.D., Professor of Greek and Latin West House	
+ARNOLD DRESDEN, Ph.D., Edward H. Magill Professor of Mathematics and	-
Astronomy Astronomy	2
Pose W MAPPIOTT Ph D Professor of Mathematics and Astronomy	
213 Lafavette Avenue	
+Grunz B. Swaw M.A. Librarian Whittier Place	
TCHARLES D. SHAW, MI.A., Littlatian	
BRAND BLANSHARD, Ph.D., Frojessor of Thuosophy	1
L. R. SHERO, Ph.D., Professor of Greek	
WINTHROP R. WRIGHT, Ph.D., Morris L. Clothier Professor of Physics	
4 Whitter Flace	-
HERBERT F. FRASER, M.A., F.R.Econ.S., Professor of Economics West House	2
SCOTT B. LILLY, B.S., C.E., Professor of Civil Engineering 600 Elm Avenue	3
PHILIP MARSHALL HICKS. Ph.D., Professor of English	3
EPEDERICK I MANNING Ph D. Isaac H. Clothier Professor of History	
215 Roberts Road, Brvn Mawi	r
Course Wesser DL D. Professor of Economics to Orden Avenue	e
CLAIR WILCOX, FR.D., Projessor of Economics	-

* Absent on leave, 1935-36. † Absent on leave, first semester, 1935-36. ‡ Absent on leave, second semester, 1935-36.

THE FACULTY

1

FOWARD H CON MA DE DI LOU	
BORDER EDWARD II. COX, MI.A., D.Sc., Professor of Chemistry	8 Whittier Place
ROBERT ERNEST SPILLER, Ph.D., Professor of English	6 Whittier Place
EDITH PHILIPS, D.U.P., Susan W. Lippincott Professor of	French
	TWbittion Dlag
NORMAN L. TORREY, Ph.D., Professor of French	1 winttier Place
WOLFGANG KÖHLER Ph D Visiting Professor of D	
CHARLES GARRETT THATCHER ME	607 Elm Avenue
machine Grankerr I HATCHER, WI.E., Associate Professor of	Mechanical Engi-
	513 Ogden Avenue
JOHN HIMES PITMAN, A.M., Associate Professor of Mathem	natics and Astron-
omy	28 Vassar Avenue
HEINRICH BRINKMANN, Ph.D., Associate Professor of Math	ematice
, , , , , , , , , , , , , , , , , , ,	Thurse strains t
MARY ALBERTSON, Ph.D. Associate Professor of History	405 Walnut Lane
MILAN W GARRETT D Phil Accorder Duck	7 N. Chester Road
And the Charles D.1 III., Associate Professor of Physic	\$
tThomas Comments And Dentilia International	Dartmouth Avenue
I ROYER STEELE ANDERSON, D.Phil., Associate Professor of	History
	2 Whittier Place
HOWARD MALCOLM JENKINS, E.E., Assistant Professor of Elec	trical Engineering
	Wort Haven
*ANDREW SIMPSON, M.S., Assistant Professor of Mechanical 1	Fraincening
, , , , , , , , , , , , , , , , , , ,	Chyineering
MICHEL KOVALENKO Ph D. Accistant Dustance (M	College Campus
Mathematics in the second seco	ics and Astronomy
DUNCAN CRATTAN FORMER DI D. 4 1	Wallingford Hills
DOWCAN GRAHAM FOSTER, Ph.D., Assistant Professor of Chem	istry
*Arman I Game Market 1 302 No	orth Chester Road
"ALFRED J. SWANN, M.A., Assistant Professor and Director of	Music, Haverford
LEON WENCELIUS, L. es L., L.Th., Th. D., Assistant Professor	of French
I	33 Ogden Avenue
KARL REUNING, Ph.D., Assistant Professor of German.	Amheret Avenue
TOWNSEND SCUDDER, 3d, Ph.D., Assistant Professor of Fnall	ch
WALTER I. SCOTT. Ph D. Assistant Professor of Zolland	415 Inayer Road
5	
LYDIA BAFP Ph D Assistant Duckeyson (G 504 SW	arthmore Avenue
I ROLAND DENNOON DL D. 4	. 510 Elm Avenue
J. ROLAND FENNOCK, Ph.D., Assistant Professor of Political S	Science
302 No	orth Chester Road
ROBERT K. ENDERS, Ph.D., Assistant Professor of Zoölogy Cu	inningham House
ROBERT DUNN, B.S., Assistant Professor of Physical Education	n for Men.
Carver Hall, Oxford Avenue and Harrison Stree	et Frankford Pa
ROBERT B. MACLEOD, Ph.D., Assistant Professor of Psychology	and Education
, second of a spenorogy	and Education
VIRGINIA RATH. M.A. Assistant Professor of Physical Educati	525 Elin Avenue
Eaucation and a second a s	on for Women
TIOHN W NASON MA Assistant Buchung (DI'	519 Walnut Lane
SPATRICK MURDHY MALLY D.S. F.	Rose Valley
Benning Martin Wallin, D.S. III Econ., Assistant Professor	in Economics
	8 Whittier Place
*Absent on leave, 1935-36.	
† Absent on leave, second semester, 1025-26	
‡ Part-time leave, 1935-36.	
§ Part-time leave, first semester 1025-26	
,	

MARCEL J. BRUN, Lic.-es-Let., Th.D., Assistant Professor of French 133 Ogden Avenue *I. J. SCHOENBERG, Ph.D., Acting Assistant Professor of Mathematics..... 606 Elm Avenue W. R. GAEDE, Ph.D., Assistant Professor of German 423 Harvard Avenue GEORGE B. THOM, M.S., Assistant Professor of Mechanical Engineering..... 315 Harvard Avenue Mercedes C. IRIBAS, M.A., Instructor in Spanish 130 Gladstone Road, Lansdowne, Pa. FREDRIC S. KLEES, A.B., Instructor in English Wharton Hall ETHEL STILZ, M.A., Instructor in Fine Arts Parrish Hall WALTER B. KEIGHTON, JR., Ph.D., Instructor in Chemistry..... 530 Riverview Avenue GEORGE R. PFANN, B.A., Instructor in Physical Education for Men..... 17 South Chester Road VIRGINIA BROWN GREER, A.B., Instructor in Physical Education for Women.... Rose Valley MAY E. PARRY, A.B., B.S., Instructor in Physical Education for Women..... 541 Pelham Road, Mt. Airy FRANK R. KILLE, Ph.D., Instructor in Zoölogy. . Yale and Swarthmore Avenues AVERY F. BLAKE, A.B., Instructor in Physical Education for Men..... 101 Sylvan Avenue, Rutledge ORREN MOHLER, Ph.D., Instructor in Astronomy...... 311 Park Avenue RUTH MCCLUNG JONES, A.B., Instructor in Botany and Zoölogy..... Bobbin Mill Road, Media MAURICE MANDELBAUM, M.A., Instructor in Philosophy 519 Walnut Lane SAMUEL T. CARPENTER, B.C.E., C.E., Instructor in Civil Engineering. 608 North Chester Road JOHN D. MCCRUMM, M.S., Instructor in Electrical Engineering 435 Riverview Avenue S. W. JOHNSON, Part-time Instructor in Accounting Amherst Avenue RICHARD W. SLOCUM, A.B., LL.B., Part-time Instructor in Law. Villanova MARGUERITE WENCELIUS, M.A., Part-time Instructor in French..... 133 Ogden Avenue J. W. Hoot, Ph.D., Part-time Instructor in Economics 136 Summit Avenue, Bywood, Upper Darby NORRIS JONES, A.B., Part-time Instructor in Scientific Drawing Bobbin Mill Road, Media SYLVIA GELMI FOREST, M.A., Part-time Instructor in Italian..... 4726 Hazel Avenue, Philadelphia ELIZABETH H. BROOKS, A.B., Tutor in Modern Languages. 104 Cornell Avenue Roy W. DELAPLAINE, A.B., Assistant in Astronomy..... 106 Cornell Avenue CHARLES P. LARKIN, A.B., LL.B., Assistant in Physical Education for Men..... c/o Cambridge Trust Co., Chester * First semester, 1935-36.

THE FACULTY

D. I. D.
E. J. FAULKNER, Assistant in Physical Education for Men
4025 Huey Avenue, Drexel Hill
VINCENT B. SCHNEIDER, A.B., Assistant in Physical Education for Men
20 Hampstead Circle Wypnewood Bo
ALBERT M. BARRON, Assistant in Physical Education for My sinewood, Pa.
and a second the information for Men
HENRY I. DAPPION A.D. 4
HENRY L. PARRISH, A.B., Assistant in Physical Education for Men
Woolman House
WILLIS J. STETSON, A.B., Assistant in Physical Education for Men.
1002 Prospect Avenue, Melrose Park, Do
BEATRICE BEACH, A.B., M.F.A. Assistant in English and North Charles P. 4.
RANDOLPH S DRIVER A B desistant in Durchelson
24 West Ward Avenue, Ridley Park
D. OWEN STEPHENS, Assistant in Fine ArtsRose Valley, Pa.
MARY FAIRBANKS, A.B., Assistant in Political Science 311 Park Avenue
EMMA MICHAEL, A.B., Assistant in Physical Education for Women.
200 Park Avenue
EDITH M. EVERETT, M.A., Lecturer in Education
White-Williams Foundation asst Street at Darkman, DL'1, 11, 1
Louis N. Robinson Ph.D. Lecturer in Fernanica
LOSEPHINE ADAMO A P. Luter in Economics
Withing N Lecturer in Fine Arts
WILLIAM N. LOUCKS, Ph.D., Lecturer in Economics. Avon Apts., Narberth, Pa.
W. I HOMAS WOODY, Ph.D., Lecturer in Education, 35 Kent Road, Upper Darby
JAMES MULHERN, Ph.D., Lecturer in Education
4518 Chestnut Street Philadelphia
*RALPH A. YOUNG, Ph.D., Lecturer in Economics
Sta Turner Avenue Dreed IVII D
ERNEST WILLOUCHEN A R C M Director of Music
- Music
102 Montrose Avenue, Rosemont, Pa.
ROBERT E. STEIGER, Ph.D., Research Associate in Chemistry 517 Walnut Lane
ALAN S. FITZGERALD, Research Associate in Electrical Engineering
Box 424, Wynnewood, Pa.
DOROTHY L. ASHTON, A.B., M.D., Physician for Women and Lecturer in
Hygiene
FRANKLIN S. GILLESPIE, A.B. M.D. Physician for Men and Lecturon in Hugien
Horword Aronne 1 Cl
Italvaru Avenue and Chester Road

* First semester, 1935-36.

DIVISIONS AND DEPARTMENTS

I Division of the Humanities-ROBERT E. SPILLER, Chairman.

Classics, LUCIUS R. SHERO, Acting Chairman. English, HAROLD C. GODDARD, Chairman. Fine Arts, ALFRED M. BROOKS, Chairman. German, CLARA P. NEWPORT, Chairman. History, FREDERICK J. MANNING, Chairman. Philosophy and Religion, BRAND BLANSHARD, Chairman. Psychology and Education, ROBERT B. MACLEOD, Chairman. Romance Languages, EDITH PHILIPS, Chairman.

II Division of the Social Sciences-ROBERT C. BROOKS, Chairman.

Economics, CLAIR WILCOX, Chairman. History, FREDERICK J. MANNING, Chairman. Philosophy and Religion, BRAND BLANSHARD, Chairman. Political Science, ROBERT C. BROOKS, Chairman. Psychology and Education, ROBERT MACLEOD, Chairman.

III Division of Mathematics and the Natural Sciences —H. JERMAIN CREIGHTON, Chairman.

> Botany, SAMUEL C. PALMER, Chairman. Chemistry, H. JERMAIN CREIGHTON, Chairman. Mathematics and Astronomy, Ross W. MARRIOTT, Acting Chairman. Physics, WINTHROP R. WRIGHT, Chairman. Psychology, ROBERT B. MACLEOD, Chairman. Zoölogy, ROBERT K. ENDERS, Acting Chairman.

IV Division of Engineering, CHARLES G. THATCHER, Chairman.

Civil Engineering, Scott B. LILLY, Chairman. Electrical Engineering, HOWARD M. JENKINS, Chairman. Mechanical Engineering, CHARLES G. THATCHER, Chairman.

STANDING COMMITTEES OF THE FACULTY

ABSENCE

Anderson, Chairman; Dr. Ashton, Dr. Gillespie, MacNeille, Philips, Rath, Stilz, E. Wright.

ALUMNI

Palmer, Chairman; Booth, Hayes, Lukens, Newport, Pennock, Pitman, Roberts, Thatcher.

ATHLETICS

Palmer, Chairman; Anderson, B. Blanshard, Dunn, Charles C. Miller, Pittenger, Scudder, Simpson, Thatcher.

COLLECTION AND MEETING ATTENDANCE

Holmes, Chairman; Hayes, Hull, Shero, Wright.

COLLEGE LIBRARY

Spiller, Chairman; Albertson, Brinkmann, A. M. Brooks, Enders, Mac-Leod, Reuning, Shaw, Shero, Torrey.

COMMENCEMENT

Wright, Chairman; Baer, Lilly, Pittenger, Roberts, Shero, Simpson, Stilz.

COOPER FOUNDATION

Hunt, Chairman; B. Blanshard, Cox, Hicks, Howard Cooper Johnson, Malin.

FELLOWSHIPS

Philips, Chairman; Creighton, Manning, Pennock, Scudder.

FOUNDERS' DAY

Jenkins, Chairman; Hayes, Palmer, Pittenger, Simpson, Stilz.

FRIENDS HISTORICAL LIBRARY

Fraser, Chairman; Hayes, Hull, Holmes, Palmer.

INSTRUCTION

Aydelotte, *Chairman;* Anderson, F. Blanshard, R. C. Brooks, Creighton, Philips, Speight, Spiller, Thatcher.

PRESCRIBED AND EXTRA WORK

Creighton, Chairman; Baer, F. Blanshard, Garrett, Lilly, Marriott, Pennock, Speight.

STUDENT AFFAIRS

Speight, Chairman; F. Blanshard, MacLeod, E. Wright, Nason.

STUDENT DRAMATICS AND MUSICAL ACTIVITIES

Newport, Chairman; Beach, Booth, Hicks.

STUDENT PUBLICATIONS

Scudder, Chairman; Albertson, Jenkins, Speight, Spiller.

TEACHERS' APPOINTMENT

MacNeille, Chairman; Creighton, Fraser, Goddard, MacLeod.

TRAVEL ALLOWANCE

Wright, Chairman; B. Blanshard, Foster, Goddard.

SECRETARY OF THE FACULTY......Wilcox

ADMINISTRATIVE OFFICERS AND ASSISTANTS

FRANK AYDELOTTE, B.Litt., LL.D., President. FRANCES B. BLANSHARD, M.A., Dean of Women. HAROLD E. B. SPEIGHT, M.A., Dean of Men. CHARLES B. SHAW, M.A., Librarian. JOHN RUSSELL HAYES, LL.B., Librarian of Friends Historical Library. JOHN C. WISTER, Director of Arthur Hoyt Scott Horticultural Foundation. NICHOLAS O. PITTENGER, A.B., Comptroller. ANDREW SIMPSON, M.S., Superintendent. CHESTER ROBERTS, Purchasing Agent. ETHEL STILZ, M.A., House Director. CAROLINE AUGUSTA LUKENS, L.B., Alumni Recorder. ANNE C. BRIERLEY, Dietitian. CLAUSINE M. MACNEILLE, A.B., Assistant to the Dean of Women. NORA R. BOOTH, A.B., Assistant to the Dean of Women. MARGARET L. FUSSELL, A.B., Head of Brick House. CATHARINE J. PIERCE, A.B., M.S., Chief, Reference Department, Library. MILDRED E. HERRICK, A.B., A.B.L.S., Chief, Catalog Department, Library. ALICE W. SWAYNE, Assistant, Catalog Department, Library. PAULINE MCCANDLESS FOSTER, A.B., B.S. in L.S., Assistant, Catalog Department, Library. ALICE N. SHIPMAN, A.B., A.B.L.S., Assistant, Catalog Department, Library. DORIS V. KING, A.B., B.S. in L.S., Assistant, Catalog Department, Library. MARY MOORE BEALE, A.B., B.S. in L.S., Assistant, Catalog Department, Library. MARY G. ANDERSON, A.B., Chief, Circulation Department, Library. MARGARET DREWETT, Ph.B., M.A., Assistant, Circulation Department, Library. E. VIRGINIA WALKER, A.B., B.S. in L.S., Assistant, Circulation Department, Library. MARY GOCHER, A.B., B.S. in L.S., Assistant, Periodical and Binding Department, Library. EMMA M. ABBETT, Secretary to the President. JULIA YOUNG MURRAY, A.B., Recording Secretary. ELIZABETH THOMSON, A.B., Secretary to the Dean of Women. FRANCES WILLS SLAUGH, A.B., Secretary to the Dean of Men. MARY B. TEMPLE, A.B., Secretary to the Comptroller. ANN SULLIVAN, Secretary to the Superintendent. CLARA L. SIGMAN KIRSCH, A.B., Secretary to the Librarian. ELSA PALMER JENKINS, A.B., Stenographic Bureau. WILHELMYNA M. POOLE, Stenographic Bureau. ELIZABETH R. HIRST, Bookkeeper. GRACE E. REDHEFFER, Assistant Bookkeeper.

HONORARY CURATORS OF BIDDLE MEMORIAL LIBRARY

EDNA B. CORSON, Assistant Bookkeeper. EDITH MAY LENT, A.B., Manager of the Bookstore. RUTH CLINE WRIGHT, A.B., Music Secretary. KATE F. WALKER, A.B., Arts Secretary. MARTHA BAER, Assistant Matron of Parrish Hall. GILDA HODGDON, R.N., Nurse in the Women's Infirmary. BLANCHE DEVEREUX, R.N., Nurse in the Men's Infirmary. FREDRIC S. KLEES, A.B., Proctor in Wharton Hall. WILLIS J. STETSON, A.B., Proctor in Wharton Hall. JOHN ABRAMS, A.B., Proctor in Wharton Hall. ROBERT CADIGAN, A.B., Proctor in Wharton Hall. MAYNARD T. KENNEDY, A.B., Proctor in Wharton Hall. HENRY L. PARRISH, A.B., Proctor in Woolman House.

HONORARY CURATORS OF THE BIDDLE MEMORIAL LIBRARY

CHARLES F. JENKINS, Chairman	Seventh Street, Philadelphia
Albert Cook Myers, Secretary	Moylan, Pa.
CLEMENT M. BIDDLEP. O. Box 743,	City Hall Station, New York
Amelia Mott Gummere	Haverford, Pa.
LOUIS N. ROBINSON	College Avenue, Swarthmore
JANE P. RUSHMORE	

15

SWARTHMORE COLLEGE

Swarthmore College is situated in the Borough of Swarthmore, eleven miles southwest of Philadelphia on the Octoraro branch of the Pennsylvania Railroad. Two hundred and thirty-seven acres are contained in the College property, including a large tract of woodland and the valley of Crum Creek.

The College was founded in 1864 through the efforts of members of the Religious Society of Friends, for the purpose of securing to the youth of the Society an opportunity for higher educational training under the guarded supervision and care of those of their own religious faith. According to its first charter, membership on the Board of Managers of the College was limited to persons belonging to the Society of Friends. The purpose of this restriction was not to establish sectarian control, but to prevent forever the possibility of such control by any sectarian element which might otherwise have come to be represented on the Board. This restriction is now believed to be no longer needed and since 1911 has been omitted from the revised charter. The intention of the founders was to make the promotion of Christian character the first consideration, and to provide opportunities for liberal culture while maintaining a high standard, of scholarship. These aims have been followed in the administration of the institution.

The enrollment of the College is limited to approximately five hundred students. The endowment is seven and a half million dollars.

BUILDINGS AND GROUNDS

The Isaac H. Clothier Memorial is the gift of Mrs. Isaac H. Clothier and members of her family in memory of Isaac H. Clothier, for forty-eight years one of the Board of Managers, and for seven years President of the Board. The Memorial is a quadrangle of buildings, including a bell tower connected by cloisters with a suite of seminar rooms and the Managers' Room, and a hall seating one thousand persons, equipped with stage and organ. The organ was the gift of Herbert J. Tily in memory of Isaac H. Clothier.

Parrish Hall is the main building of the College. Administrative offices, class-rooms, reception rooms, and the College dining-hall

BUILDINGS

occupy the ground floor. The upper floors in the central section contain a social hall, class-rooms, offices, and a laboratory; in the wings, dormitory rooms for Freshman, Sophomore, and Junior women, and an infirmary.

Worth Hall, the dormitory for Senior women, consists of six cottages contiguous in design but each with its own entrance and staircase. The building was the gift of William P. Worth, 1876, and J. Sharpless Worth, ex-1873, as a memorial to their parents.

Wharton Hall, named in honor of its donor, Joseph Wharton, at one time President of the Board of Managers, provides rooms for two hundred men and an infirmary.

Two Senior Dormitories for Men have been added in 1935 through the purchase of buildings from the old Swarthmore Preparatory School. They stand on Chester Road, adjacent to the College Soccer Field.

Two other buildings, also purchased from the Swarthmore Preparatory School, will be ready for use by the College in the near future.

Woolman House, at Elm Avenue and Walnut Lane, is a smaller dormitory for men students. The house and grounds were given to the College by Emma C. Bancroft, for many years Chairman of the Household Committee of the Board of Managers.

Science Hall, devoted chiefly to the departments of Physics and Biology, contains physical and biological laboratories, and notably a biological laboratory named in honor of the late Professor Spencer Trotter, commemorating the thirtieth anniversary of the graduation of the class of 1890.

The *Hall of Chemistry* is equipped with laboratories, offices, a lecture amphitheatre, and a library for instruction and research in chemistry.

The Sproul Astronomical Observatory houses the astronomical work of the department of Mathematics and Astronomy. The astronomical equipment has been purchased from a fund given by William C. Sproul, 1891, and is adequate for advanced research. The department has also a Students' Astronomical Observatory, housed in a separate building.

The Library, in part the gift of Andrew Carnegie, contains reading rooms, offices, and a collection of 90,000 volumes. An addition providing storeroom for 150,000 volumes has been erected in 1935. One wing of the Library was given by Clement M. Biddle, 1896, in memory of his father, Clement M. Biddle, to house the Friends Historical Library. The nucleus of this collection of books on Quaker history, religion and social reform was a gift in 1871 by a member of the Society of Friends, Anson Lapham. The Library includes also a museum of old furniture, costumes, etc., of Friendly interest. Of especial importance is the collection of manuscript records of Friends Meetings.

Hicks Hall, the headquarters of the Division of Engineering, was given by Frederick C. Hicks, 1893, in memory of the Hicks family of Long Island—Isaac Hicks, Elias Hicks, Benjamin Hicks, and Alice A. Hicks. The building provides mechanical and electrical laboratories, class-rooms, offices, a library, and an auditorium.

Beardsley Hall is the engineering shop building with forge and foundry, machine shop and wood working department.

The William J. Hall Gymnasium for men contains offices, examining room, a main exercise hall, and hand ball courts.

Somerville Hall, erected in 1893 by the Somerville Literary Society, is the gymnasium for women students.

Connected with each gymnasium is a swimming pool presented to the College by Philip M. Sharples of the Board of Managers.

Swarthmore Field and Alumni Field for men afford football, baseball, and lacrosse grounds and a quarter-mile cinder track. A permanent grandstand, seating eighteen hundred persons, was the gift of Morris L. Clothier, 1890. Additional playing fields for lacrosse and soccer and tennis courts are on the front campus.

Cunningham Field for women, was given by students, alumnæ, and friends of the College in memory of Susan J. Cunningham, for many years Professor of Mathematics and Astronomy. It includes hockey fields, tennis courts, practice golf course, and a riding ring.

The Arthur Hoyt Scot: Horticultural Foundation, the gift of Mrs. Arthur Hoyt Scott, 1896, and Owen and Margaret Moon, is now in process of development.

Bond Memorial Hall and the women's activities lodges for class and other activities form with Worth Hall part of a Women's Quadrangle. The Bond Memorial, named in honor of Elizabeth Powell Bond, for many years Dean of the College, is a social center for all women students.

The *Cloisters* is the group of lodges for the men's fraternities. These lodges are used not as dormitories, but solely as social gathering places.

The Bartol Foundation Building, erected on the campus by the Franklin Institute for research in physics, is entirely independent of the College, but makes a contribution to Swarthmore life by bringing here a group of research physicists.

Other buildings of interest upon the campus are the Meeting House of the Swarthmore Monthly Meeting of the Society of Friends and the Benjamin West House, the birthplace of Benjamin West, P.R.A.

The College provides twenty-two houses for the President and members of the faculty.

Buildings in Prospect:

A Field House, 315 feet long by 115 feet wide, designed by Robert E. Lamb, of the Board of Managers, is in process of erection. It will include two basketball floors, a clay floor which will accommodate baseball, football, soccer, lacrosse, and other games normally played out of doors. The building will have also a running track, seven laps to the mile, and small rooms for wrestling and boxing.

A new Observatory is now being planned, part of the funds for which have already been raised.

The Edward Martin Biological Laboratory for undergraduate instruction and for research, given by Fred M. Kirby of Wilkes-Barre, Pennsylvania, in honor of Dr. Edward Martin of the Board of Managers, will be erected in the near future.

RELIGIOUS EXERCISES

Collection

There is an assembly of the College, called *Collection*, at 9:00 A. M. every Wednesday in the Clothier Memorial; attendance of students is required. The program, which ordinarily lasts 15 minutes, is devoted to addresses or music, preceded by a period of silence according to the Friendly tradition.

A meeting in the manner of the Society of Friends is held on Monday, Tuesday, Thursday and Friday, from 9:00 to 9:15 A. M., in the Friends Meeting House on the campus. No program is arranged. Members of the Faculty or students speak occasionally, but the period is frequently one of silent meditation. Attendance is entirely voluntary.

VESPERS

A vesper service is held every Sunday at half past six in the Clothier Memorial. The program consists of music contributed by outside musicians and members of the student body and an occasional address or discussion led by members of the Faculty and outside speakers of note.

STUDENT ORGANIZATIONS

The following are departmental clubs of undergraduates of the College which hold stated meetings during the academic year: the Cercle Français, the Chemistry Club, the Classical Club, The Engineers Club, the German Club, the Philosophy Club, and the Trotter Biological Society. The programs of these clubs include the presentation of papers and addresses by undergraduates and frequently by visiting scholars and scientists.

Informal "interest groups" of students and members of the Faculty who share interests in contemporary literature, religious and social problems, music, writing, sketching, arts and crafts, meet regularly for work and discussion.

The Somerville Forum is an outgrowth of the Somerville Literary Society, which was established in 1871. All women students are active members. There are five open meetings a year devoted to music, art, and drama. The final meeting in April, known as Somerville Day, is a gathering of alumnæ and active members.

The Little Theatre Club is an organization designed to promote interest in dramatics and to encourage the production of plays. Membership in the club is based on worthy performance in major rôles of at least two college productions or ability in stage management and lighting.

The Athletic Association is an organization of the men for the maintenance of physical training and athletic sports. The Women's Athletic Association is a similar organization of the women students.

The Swarthmore College Orchestra and Mixed Chorus give musical and dramatic productions in the College and outside. The Swarthmore College Glee Club, a men's chorus, gives concerts in various cities under alumni auspices.

The Debate Board, an undergraduate body including all students who have represented the College in public debate, in connection with the faculty adviser of debating, direct organized discussion and debate. In addition to the intercollegiate debates, usually held on the campus, student speakers appear before various clubs and discussion groups in Philadelphia and vicinity.

Contests conducted by the Debate Board to stimulate interest in public speaking are as follows:

The Delta Upsilon Prize Speaking Contest, for a prize of \$25, the interest on a sum given for this purpose by Owen Moon, Jr., 1894;

HONORARY SCHOLARSHIP SOCIETIES

The Ella Frances Bunting Extemporaneous Speaking Contests for two prizes of \$25, one open to men and one to women, provided by the gift of E. M. Bunting of New York;

The Potter Prize Contest for a prize of \$25, given originally by the late Justice William P. Potter, and continued as a memorial to him.

The Sophomore-Freshman Debate is open to all members of the two classes. The medals for the members of the winning team are provided by the Potter Fund for the Encouragement of Public Speaking, bequeathed to the College by Jessie Bacon Potter.

The Swarthmore Chapter of Delta Sigma Rho, the national honorary forensic society, elects to membership each spring students who have done outstanding work in debate and other public speaking contests. To be eligible, students must have engaged in forensic activities for two years and must have represented the College in an intercollegiate contest.

No student organization of the College may incur any financial obligation, or make any contract involving a monetary consideration without first obtaining the sanction of the Comptroller of the College, or of the proper faculty committee under whose supervision the organization is placed. Students contemplating a new organization must first consult the faculty committee on Student Affairs.

HONORARY SCHOLARSHIP SOCIETIES

The Swarthmore chapter of Phi Beta Kappa, the national society for the recognition of scholarship, was organized in 1896. Each year students in the senior class having the highest standing are elected to membership.

The Swarthmore chapter of Sigma Tau, the national society standing for scholastic attainment in engineering, was established in 1917. Members are chosen from among senior or junior students majoring in civil, electrical, mechanical, general or chemical engineering.

The Swarthmore chapter of Sigma Xi, the national scientific society for the promotion of research, was granted a charter in 1922. Students may become associate members after two and one-half years in college provided that, in the opinion of the members of the society, they evince promise of ability in research, and may become members after they have produced a piece of research worthy of publication.

THE BENJAMIN WEST SOCIETY

The Benjamin West Society is made up of alumni, students, members of the faculty, and friends of Swarthmore who have a concern for art at Swarthmore.

The name of the Society has special significance because West, himself a distinguished artist, and the founder of American painting, was born on the Swarthmore campus.

It is the double purpose of the Benjamin West Society to form, by gift and purchase, art collections which shall be the permanent possession of the college and, from time to time, to bring to the college art exhibits and distinguished lecturers on art. The Society hopes ultimately to have a building wherein its collections, already considerable in number and good in quality, may be exhibited appropriately.

Officers of the Association for the year 1934 are as follows: President, Frank Aydelotte; Vice-Presidents, Charles F. Jenkins, Alice Sullivan Perkins; Secretary, Florence Wilcox; Treasurer, Leonard C. Ashton; Director, Frederic N. Price; Curator, Alfred M. Brooks.

COLLEGE PUBLICATIONS

Three periodicals are published by the students under the supervision of the faculty: The Swarthmore Phoenix, a weekly newspaper; The Manuscript, a literary quarterly; the Halcyon, a year-book edited by the Junior Class.

The Swarthmore College Bulletin, published quarterly, includes as three of its numbers the College Catalogue, the Annual Report of the President of the college, and the Students' Handbook. The fourth number is devoted to special reports.

THE COLLEGE LIBRARY

The Swarthmore College Library now numbers approximately 90,000 volumes. Some 5,000 volumes are added annually. About 600 periodicals are received regularly. The general collection, including all but the scientific and technical books and journals, is housed in the Library building, situated on the front campus.

To meet the needs of students reading for honors, the college is enriching its collection as rapidly as possible. As a consequence of this growth, it became necessary last summer to build an addition containing stacks for 150,000 volumes. Former stack rooms in the main library

THE FRIENDS HISTORICAL LIBRARY

building have been converted into reading rooms for students and work rooms for the Staff. The Library administration is changing from the Dewey decimal to the Library of Congress system of classification to make possible more rapid and adequate classification and cataloguing of new books.

Important special units of the main Library are the Appleton collection of Classics and English literature and the Potter collection of legal material. The Library is definitely a collection of books and journals for undergraduate use. The demands of honors work, however, make necessary the provision of large quantities of source material not usually found in collections maintained for undergraduates. It is a point of library policy to supply as fully as it can, either by purchase or through inter-library loan, the books needed by students or members of the faculty for their individual research.

Rules regarding the use of the Library and its books are reduced to the minimum. The few in force are maintained so that the Library's holdings may be of the greatest benefit to all users.

The Librarian and each member of the staff welcome chances to aid students in making full use of the Library's resources. The Library is open on Mondays to Saturdays, inclusive, from 8 A.M. to IO P.M., and on Sundays from 2 P.M. to 6 P.M., and from 7 P.M. to IO P.M.

THE FRIENDS HISTORICAL LIBRARY

The Friends Historical Library, founded in 1870 by Anson Lapham, contains a valuable and growing collection of Friends records, books, tracts, and early writings (many very rare), portraits of representative Friends, pictures of old meeting houses, objects and relics of personal and historic interest, and manuscripts relating to the Society and its history. This collection is housed in the Library, a fireproof building of stone and steel, the gift of Clement M. Biddle in memory of his father, Clement M. Biddle, and it is hoped that Friends and others will deem it a secure place in which to deposit books, papers, portraits, and other material in their possession which may be of interest in connection with the history of the Society. Such contributions are solicited, and should be addressed to the Friends Historical Library, Swarthmore, Pa. The library is accessible to all persons interested in the doctrines and history of Friends, and ample arrangements are provided for its use for consultation and for reference.

THE WILLIAM J. COOPER FOUNDATION

The William J. Cooper Foundation was established by William J. Cooper, a devoted friend of the College, whose wife, Emma McIlvain Cooper, served as a member of the Board of Managers from 1882 to 1923. Mr. Cooper bequeathed to the College the sum of \$100,000 and provided that the income should be used "in bringing to the College from time to time eminent citizens of this and other countries who are leaders in statesmanship, education, the arts, sciences, learned professions and business, in order that the faculty, students and the College community may be broadened by a closer acquaintance with matters of world interest." Admission to Cooper Foundation events is without charge.

THE ARTHUR HOYT SCOTT HORTICULTURAL FOUNDATION

The Arthur Hoyt Scott Foundation Endowment Fund was established in 1929 by gift of Mrs. Arthur Hoyt Scott and Owen and Margaret Moon for the development of an arboretum and botanical garden on the College campus and property, and for the periodic award of a gold medal and \$1,000 cash prize to the individual or organization judged to be outstanding "in creating and developing a wider interest in gardening." The Fund is a memorial to Arthur Hoyt Scott, 1895.

FELLOWSHIPS AND SCHOLARSHIPS

FELLOWSHIPS

There are six fellowships offered to graduates of Swarthmore College.

Three fellowships are awarded annually by the Faculty, on recommendation of the Committee on Fellowships, to graduates of the College for the pursuit of advanced work under the direction of the Faculty or with their approval. Applications for these fellowships for 1936-37 must be received by the committee before March 1, 1936.

These fellowships are:

The HANNAH A. LEEDOM FELLOWSHIP of \$500, founded by the bequest of Hannah A. Leedom;

The JOSHUA LIPPINCOTT FELLOWSHIP of \$600, founded by Howard W. Lippincott, of the Class of 1875, in memory of his father;

FELLOWSHIPS AND SCHOLARSHIPS

The JOHN LOCKWOOD MEMORIAL FELLOWSHIP of \$600, founded by the bequest of Lydia A. Lockwood, New York, in memory of her brother, John Lockwood. It was the wish of the donor that the fellowship be awarded to a member of the Society of Friends.

The LUCRETIA MOTT FELLOWSHIP, founded by the Somerville Literary Society and sustained by the contributions of its life members, has yielded an annual income since its foundation of \$525. It is awarded each year by a committee of the faculty (selected by the society), with the concurrence of the life members of the society, to a young woman graduate of that year who is to pursue advanced study at some other institution approved by this committee.

SIGMA XI RESEARCH FELLOWSHIP. The Swarthmore Chapter of Sigma Xi has founded a fellowship to be known as the Swarthmore Sigma Xi Research Fellowship. The holder of this fellowship will be, in general, an associate of the chapter who has become an advanced graduate student of outstanding ability. The fellowship is expected to carry a stipend of one thousand dollars and is awarded from time to time as funds are available. The next award will probably be made for 1936-37.

The MARTHA E. TYSON FELLOWSHIP, founded by the Somerville Literary Society in 1913, is sustained by the contributions of life members of the society and yields an income of \$500 or more. It is awarded biennially by a joint committee of the faculty and the society (elected by the society) with the concurrence of the life members of the society to a woman graduate of Swarthmore College, who has taught successfully for two years after her graduation and expects to continue teaching. The recipient of the award is to pursue a course of study fitting her for more efficient work in an institution approved by the Committee of Award. This fellowship will not be awarded for 1936-37. Applications for 1937-38 must be received by the Committee of Award not later than February 15, 1937.

SCHOLARSHIPS

1. Class Scholarships. The following scholarships are offered for high scholastic standing in the first two years of college. They are of the value of \$200 each for resident, and \$100 each for day students, and are awarded in each instance to that member of each of the respective classes who shall be promoted without conditions, and shall have the best record of scholarship upon the regular work of the year:

- (a) The ANSON LAPHAM SCHOLARSHIP will be awarded to a member of the Freshman Class.
- (b) The SAMUEL J. UNDERHILL SCHOLARSHIP will be awarded to a member of the Sophomore Class.

2. Each of the following funds yields annually about \$250 and is awarded at the discretion of the College to students needing pecuniary aid:

- (a) The BARCLAY G. ATKINSON SCHOLARSHIP FUND.
- (b) The REBECCA M. ATKINSON SCHOLARSHIP FUND.
- (c) The WILLIAM DORSEY SCHOLARSHIP FUND.
- (d) The THOMAS L. LEEDOM SCHOLARSHIP FUND.
- (e) The SARAH E. LIPPINCOTT SCHOLARSHIP FUND.
- (f) The MARK E. REEVES SCHOLARSHIP FUND.
- (g) The JOSEPH T. SULLIVAN SCHOLARSHIP FUND.
- (h) The DEBORAH F. WHARTON SCHOLARSHIP FUND.
- (i) The THOMAS WOODNUTT SCHOLARSHIP FUND.

3. The SARAH KAIGHN COOPER SCHOLARSHIP, founded by Sallie K. Johnson in memory of her grandparents, Sarah Kaighn and Sarah Cooper, is awarded to a man in the Junior Class who is judged by the faculty to have had, since entering College, the best record for scholarship, character, and influence. The value of this scholarship is approximately \$250 annually.

4. The JOSEPH E. GILLINGHAM FUND, with an annual income of approximately \$2,500 was bequeathed to the College in 1907 with the stipulation, "I request but I do not direct that part of the income of this legacy may be used for free scholarships for meritorious students."

5. The GEORGE K. and SALLIE K. JOHNSON FUND provides \$500 a year, to be used, at the discretion of the President of the College, in granting financial aid to young women during their senior year, it being the donor's desire that the President must be satisfied that the applicant is fitted to become a desirable teacher.

6. The income of the KAPPA ALPHA THETA SCHOLARSHIP FUND of \$3,026, given by members and friends of the Kappa Alpha Theta Fraternity at Swarthmore, is awarded annually to a woman student. One or more members of the fraternity who are on the Board of Managers serve on the Committee of Award.

SCHOLARSHIPS

7. The JAMES E. MILLER SCHOLARSHIP. Under the will of Araoella M. Miller, the sum of \$5,986 was awarded to the Cambridge Trust Company, Trustee under the will of James E. Miller, to be applied to scholarships in Swarthmore College. An annual income of approximately \$340 is available and may be applied toward the payment of board and tuition of students of Delaware County (preference to be given to residents of Nether Providence Township) to be selected by the Trustee in consultation with the Superintendent of Schools of Delaware County and of the City of Chester, and subject to the approval of Swarthmore College.

8. The HARRIET W. PAISTE FUND is limited by the following words from the donor's will: "the interest to be applied annually to the education of female members of our Society of Friends (holding their Yearly Meeting at Fifteenth and Race Streets, Philadelphia) whose limited means would exclude them from enjoying the advantages of an education at the College." The value of this scholarship is approximately \$400 annually.

9. The T. H. DUDLEY PERKINS MEMORIAL SCHOLARSHIP of \$600 is awarded annually to a young man selected by a committee of the faculty appointed by the President of the College for the purpose. The award will be made and the following points determined by the credentials of the secondary school from which the successful candidate is a graduate. *First*, Qualities of manhood, force of character and leadership, 50 points. *Second*, Literary and scholastic ability and attainments, 30 points. *Third*, Physical vigor as shown by participation in out-of-door sports or in other ways, 20 points.

10. The MARY COATES PRESTON SCHOLARSHIP FUND. A sum of money has been left by will of Elizabeth Coates to Josephine Beistle, of Swarthmore, as trustee, the annual interest of which will be about \$350. This amount is given by the trustee as a scholarship to a young woman student in Swarthmore College, preferably to a relative of the donor.

11. The WILLIAM G. AND MARY N. SERRILL HONORS SCHOLAR-SHIP is a competitive Honors Scholarship for Men, awarded to a candidate for admission to the College, based upon the general plan of the Rhodes Scholarships. It is tenable for four years, subject to the maintenance of a high standing in College. The annual stipend is \$375. Preference will be given to men who are residents of Abington Township, including Jenkintown and Glenside, Montgomery

County, Pa., but if there is no outstanding candidate from this locality, the scholarship will be open to competition generally.

12. The ANNIE SHOEMAKER SCHOLARSHIP is awarded annually to a young woman of the graduating class of Friends Central School, Philadelphia, by a two-thirds vote of their faculty, subject to the approval of Swarthmore College. This scholarship has the value of \$500 for a resident student and \$400 for a day student.

13. The HELEN E. W. SQUIER SCHOLARSHIP, originally one of the Anson Lapham Scholarships, is awarded annually by Mrs. Chester Roberts, of Swarthmore, to a student in need of financial aid.

14. SWARTHMORE COLLEGE OPEN SCHOLARSHIPS FOR MEN. Swarthmore College in 1922 established experimentally five annual open competitive scholarships for men, not confined to any particular school, locality, subject of study, or religious denomination. These scholarships, based upon the general plan of the Rhodes Scholarships, are given to candidates who, in the opinion of the Selection Committee, rank highest in scholarship and character.

The regulations under which these scholarships will be awarded in 1936 are as follows:

The stipend of an Open Scholarship is \$500 a year. Each Scholarship is tenable for four consecutive years, subject to the maintenance of a high standing in College. All holders of Open Scholarships must be resident students, living and taking their meals at the College.

A candidate to be eligible must:

- (1) Be more than fifteen and less than twenty years of age on September first of the year for which he is elected.
- (2) Meet the requirements for admission to Swarthmore College as prescribed in the college catalogue.
- (3) Not have attended another college or university.

Each candidate must secure the endorsement of the principal of his preparatory school. Not more than two candidates may be selected to represent any school in the competition for any one year.

The records of all Open Scholars will be reviewed by the Committee each year, the record of the first two years being especially considered as a basis for continuing a scholarship. Open Scholars are expected to maintain a high standard throughout the College course. In re-awarding Scholarships vacated because of low academic stand-

SCHOLARSHIPS

ing or for any other reason, preference will be given to original competitors for the appointment in question, who have since made outstanding records in Swarthmore College.

Scholars will be selected without written examination on the basis of (1) their school record as shown by the material called for in the application blank; (2) a personal interview with the Selection Committee or its representatives. Whenever possible, candidates will come to the College when summoned, for their interviews. It is expected, however, that these interviews can be arranged in various parts of the United States, so as to make it unnecessary that candidates travel any considerable distance. Application blanks duly filled out and accompanied by the material specified must reach the Dean of Men at Swarthmore College before March 31 of the year in which they are awarded. The awards will be announced about June first.

This year there were 104 candidates from 20 states and the District of Columbia. Candidates were interviewed in various parts of the country by representatives of the committee of selection, including Swarthmore Alumni and former Rhodes Scholars. The Committee was composed of President Aydelotte, Mr. J. Archer Turner, Treasurer of the College; Dean Harold E. B. Speight, Dr. Detlev W. Bronk, '20, of the University of Pennsylvania; Mr. Willard W. Beatty, Superintendent of Schools of Bronxville, N. Y.; Professor John W. Nason, of the Department of Philosophy and Religion, and Mr. Nicholas O. Pittenger, Comptroller of the College.

15. SWARTHMORE COLLEGE OPEN SCHOLARSHIPS FOR WOMEN. Mr. and Mrs. Daniel S. White, of the Class of 1875, on the occasion of the Fiftieth Reunion of that class, established three open competitive scholarships for women, in the names of Howard White, Jr., Serena B. White, and Walter W. Green. These scholarships are not confined to any particular school, locality, subject of study, or religious denomination. They are based on the general plan of the Rhodes Scholarships, and are given to candidates who show greatest promise in:

(1) Qualities of womanhood, force of character and leadership.

(2) Literary and scholastic ability and attainments.

Three scholarships are awarded annually, the stipend of each scholarship being fixed at \$500 a year, which covers more than half of a woman's college expenses. Each scholarship is tenable for four consecutive years, subject to the maintenance of high standing in college. A candidate to be eligible must:

(a) Be between the ages of 16 and 21 on September 1st of the year for which she is elected.

(b) Be qualified to enter Swarthmore College with fifteen units of credit as prescribed in the college catalogue.

(c) Not have attended another college or university.

Each candidate must secure the endorsement of the principal of her preparatory school and not more than two candidates may be selected to represent a particular school in the competition for any one year.

The detailed regulations under which these scholarships are awarded, the number of scholarships offered, and the amount of the stipend of each scholarship may be determined by the Board of Managers of the College, in the future, in accordance with the funds available and the conditions which, in the opinion of the Board, would make them most useful.

Scholars will be selected without written examination on the basis of (1) their school record as shown by the material called for in the application blank and (2) a personal interview with some representative of the college. The college makes arrangements primarily to interview candidates whose written records are outstanding. For any candidate who especially desires an interview, one will be arranged at her request either at Swarthmore College or in the vicinity of her own home. Application blanks duly filled out and accompanied by the material specified must reach the Dean of Women of Swarthmore College, on or before November 15, 1935. Awards will be announced about February 1, 1936.

This year there were 126 candidates for the White Open Scholarships for Women, representing 17 states, the District of Columbia and China. The Committee of Award was composed of President Frank Aydelotte, Dean Frances Blanshard, Dean Harold E. B. Speight, Professor Ethel H. Brewster, Lucy Biddle Lewis, of the Board of Managers, and three Alumnæ; Hannah Clothier Hull, 1891, Alice Smedley Palmer, 1889, and Anna Michener, 1916.

16. The SWARTHMORE ALUMNÆ SCHOLARSHIP, established by the Philadelphia and New York Alumnæ Clubs, is awarded on the same basis as the Open Scholarships. It is awarded for one year and is valued at \$500.

SCHOLARSHIPS

17. The JONATHAN K. TAYLOR SCHOLARSHIP, in accordance with the donor's will, is awarded by the Board of Trustees of the Baltimore Monthly Meeting of Friends. This scholarship is first open to descendants of the late Jonathan K. Taylor. Then, while preference is to be given to members of the Baltimore Yearly Meeting of Friends, it is not to be confined to them when suitable persons in membership cannot be found. The value of this scholarship is approximately \$525 annually.

18. The PHEBE ANNA THORNE FUND provides an income of approximately \$2,500 for scholarships for students needing pecuniary assistance whose previous work has demonstrated their earnestness and their ability. This gift includes a clause of preference to those students who are members of the New York Monthly Meeting of Friends. These scholarships are awarded by the College under the regulations fixed by the Board.

19. The WESTBURY QUARTERLY MEETING, N. Y., SCHOLARSHIP, amounting to \$350, is awarded annually by a committee of that Quarterly Meeting.

20. The Western Swarthmore Club offers in conjunction with the College one scholarship of \$500 for the Freshman year. The scholarship is open for competition to all men graduates of high schools and preparatory schools west of the Allegheny Mountains. Students interested are requested to apply to the President of the Club. The holder will be eligible for consideration for additional scholarship aid during his Sophomore year.

21. The SAMUEL WILLETS FUND yields an income of approximately \$5,000 annually, "to be applied to educate in part or in whole such poor and deserving children as the Committee on Trusts, Endowments and Scholarships of said college may from time to time judge and determine to be entitled thereto."

22. In addition to the above fund, Samuel Willets gave four scholarships in the name of his children, FREDERICK WILLETS, EDWARD WILLETS, WALTER WILLETS, and CAROLINE M. FRAME. These scholarships have the value of \$250 each. They are awarded by the respective parties, their heirs or assigns, or in the event that the heirs do not exercise their right, by the College authorities. 23. The I. V. WILLIAMSON SCHOLARSHIP FOR PREPARATORY SCHOOLS. Ten scholarships of the value of \$150 each for resident students, and \$75 each for day students, are offered to members of classes graduating in 1936 in the following schools:

I	to	Friends Central School (Boys' Department) Philadelphia.
I	to	Friends Central School (Girls' Department) Philadelphia.
I	to	Friends SeminaryNew York, N. Y.
I	to	Friends SchoolBaltimore, Md.
I	to	Friends School
I	to	Friends High School
I	to	Friends AcademyLocust Valley, N. Y.
T	to	Sidwells Friends
T	to	Brooklyn Friends SchoolBrooklyn, N. Y.
T	to	George School (Boys' Department)George School, Pa.
I	to	George School (Girls' Department)George School, Pa.

These scholarships are awarded under the following conditions:

- (a) The candidates will be required to take the examinations of the College Entrance Examination Board in Senior English, Algebra A and one foreign language. The scholarship will be awarded only to that candidate who makes a passing grade of 60 per cent or above in each subject required for admission and who makes the highest average grade.
- (b) Examinations must be completed before July I preceding the years of admission to College. A candidate may take any examination for which his preparation is complete in any year of the College preparatory course.
- (c) No scholarship will be awarded to applicants who fail to be admitted without conditions.
- (d) Every holder of such scholarship must pursue in College the studies leading regularly to the degree of Bachelor of Arts.

Any income not utilized in accordance with these conditions is used for free and working scholarships in accordance with the request of the donor.

24. The EDWARD CLARKSON WILSON SCHOLARSHIP. A scholarship with an annual value of \$125 has been established at Swarthmore by friends of Edward Clarkson Wilson, '91, formerly Principal of the Baltimore Friends School. It will be awarded each year to a former student of the Baltimore Friends School, who has been ap-
MEDALS

proved by the faculty of the School, on the basis of (1) high character; (2) high standing in scholarship. The scholarship is open both to Freshmen and to members of the upper classes, both to men and women of all denominations. In any year when there is no outstanding candidate from the students of the Baltimore Friends School, the scholarship will be awarded to another young man or woman who shall meet the required standards and who is approved by the School faculty and the College.

25. The MARY WOOD FUND is limited by the following words from the donor's will: "the income thereof to be, by the proper officers thereof, applied to the maintenance and education at said College of one female student therein, one preparing for the avocation of a teacher to be preferred as the beneficiary, but in all other respects the application of the income of said Fund to be in the absolute discretion of the College." The value of this scholarship is approximately \$75 annually.

26. Additional honorary and "working scholarships" are awarded annually by the College from general funds. Students should apply for these scholarships between April and June of the year before they wish to receive an award. Men should file their applications with the Dean of Men; women, with the Dean of Women. In making awards the Committee recognizes both high scholastic standing and definite financial need.

"Working scholarships" are approximately half earned and half honorary. Recipients are asked to assist in one of the college offices, in the Library, or in the Bookstore for the number of hours a week in which they could normally earn half their scholarships. An award of \$100 demands a maximum of four hours of work a week.

MEDALS

The Ivy Medal Fund was created by a gift from Owen Moon, '94. The income of the fund is used to purchase a medal which is placed in the hands of the faculty for award on Commencement Day to a male member of the graduating class. The regulations governing the award are as follows:

(1) The idea behind the Ivy Medal is in general the Rhodes Scholarship qualifications including (a) qualities of manhood, force of character, and leadership; (b) literary and scholastic ability and attainments. This has been

phrased by the donor in the words "leadership based upon character and scholarship."

(2) It is the wish of the donor that the medal should not be awarded on a mere basis of averages. Instead, it is desired that the winner should be a man who gives promise of distinction either in character or in intellectual attainments, as opposed to a man who has merely made the most of mediocre abilities.

(3) On the other hand, it is the wish of the donor that the medal should not go to a man who, while showing excellence in some one respect, has fallen seriously below the standard in others.

The Oak Leaf Medal was established by David Dwight Rowlands of the Class of 1909. It was later permanently endowed in memory of him by Hazel C. Rowlands, '07, and Caroline A. Lukens, '98. The medal is placed in the hands of the faculty to be awarded each year to the woman member of the Senior Class who is outstanding for loyalty, scholarship and service.

PRIZES

The A. EDWARD NEWTON LIBRARY PRIZE, endowed by A. Edward Newton, to make permanent the Library Prize first established by W. W. Thayer, is awarded annually to that undergraduate who, in the opinion of the Committee of Award, shows the best and most intelligently chosen collection of books upon any subject. Particular emphasis is laid in the award, not merely upon the size of the collection but also upon the skill with which the books are selected and upon the owner's knowledge of their subject-matter.

The KATHARINE B. SICARD PRIZE, given by the Delta Gamma Fraternity in memory of Katharine B. Sicard, ex '34, is awarded annually to the Freshman woman who, in the opinion of the department, shows greatest proficiency in English.

LOANS

The ELLIS D. WILLIAMS FUND. By the will of Ellis D. Williams, a legacy of \$25,000 was left to the College, the income from which is to be used for loans to students, repayable not later than five years after graduation, with interest at the rate of four per cent per annum.

ADMISSION

ADMISSION

In considering the application of each candidate the Committee will study his, or her, school record, recommendations, and all available results of tests and examinations which indicate achievement and promise. High ranking in the graduating class or good ratings in the College Entrance Examination Board examinations will be regarded as important evidence of aptitude for college work. Strong intellectual interests and the promise of excellence in some particular direction will receive more consideration than a record which shows a higher average without promise of unusual ability in any one field. In addition, the Committee will place emphasis on the character and purpose of the candidate, together with good health, interest in recreational pursuits, and leadership in school life. The qualities of character sought are the simplicity, moral earnestness and idealism which have been traditionally associated with the Society of Friends and with Swarthmore College. First consideration will be given to children of Friends and Alumni of the College; those who rank high in their graduating class will be assured of admission; those who do not rank high will be considered under the terms of the selective process described above.

All members of the Freshman Class are required to take the Scholastic Aptitude Test of the College Entrance Examination Board for the purpose of educational guidance, although the results of this test are not at present used as a basis for admission.

Candidates for admission should make early application, women preferably before January I and men preferably before April 15. If possible, records of school work for the first three years, signed by the school Principal, should be submitted one year prior to admission. Application blanks and certificate blanks are furnished by the Deans of the College upon request. Certificates are returned to the school Principals in the spring for the record of the senior year.

Applicants whose school records are good are asked to call at Swarthmore College at special times during the year for interviews. Persons living far from Swarthmore may be interviewed by representatives of the College in any part of the United States or abroad.

The names of men and women applicants accepted for admission are announced as soon as possible after May 1 of the year of admission.

SUBJECT REQUIREMENTS

The subjects required for entrance to Swarthmore College are as follows:*

Elementary Algebra	units units units units unit	Required subjects, eleven and one half units.
Advanced Algebra 1/2 \$Solid Geometry 1/2 \$Plane Trigonometry 1/2 Latin 2, 3 or Greek 2, 3 or Grenck 2, 3 or German 2, 3 or Spanish 2, 3 or Ancient History I Mediaeval and Modern History I Modern History I English History I American History I Chemistry I Dotany 1/2 or I Physical Geography 1/2 or I Physical Geography 1/2 or I Satisfactory Free Electives 3	unit unit unit 4 units 4 units 4 units 4 units 4 units 4 units unit unit unit unit unit unit unit unit	Elective subjects, three and one half units.

* Subject requirements may be modified in the case of applicants from schools coöperating in the experiment of the Progressive Education Association.

[†]Three units of one language and two of another, one of which must be Latin or German or Greek.

Exception: Engineering students may offer only two units.

‡Required of engineering students.

Definitions of the content requirements in the foregoing subjects are given in a circular of the College Entrance Examination Board referred to in the next section.

COLLEGE ENTRANCE EXAMINATION BOARD

COLLEGE ENTRANCE EXAMINATION BOARD Examinations of June 15-20, 1036

The College Entrance Examination Board will hold examinations in June, 1936, at over three hundred points in this country and abroad. A list of these places will be published about March 1, 1936. Requests that the examinations be held at particular points should be transmitted to the Secretary of the College Entrance Examination Board not later than February 1, 1936.

Detailed definitions of the requirements in all examination subjects are given in a circular of information published annually about December 1. Upon request to the Secretary of the College Entrance Examination Board a single copy of this document will be sent to any teacher without charge. In general, there will be a charge of thirty cents, which may be remitted in postage.

All candidates wishing to take these examinations should make application by mail to the Secretary of the College Entrance Examination Board, 431 West 117th Street, New York, N. Y. Blank forms for this purpose will be mailed by the Secretary of the Board to any teacher or candidate upon request by mail.

The applications and fees of all candidates who wish to take the examinations in June, 1936, should reach the Secretary of the Board not later than the dates specified in the following schedule:

For examination centers

In the United States east of the Mississippi River or on the
MississippiMay 25, 1036
In the United States west of the Mississippi River or in
CanadaMay 18, 1936
Outside of the United States and Canada, except in Asia
May 4, 1936
In China or elsewhere in the OrientApril 20, 1936

An application which reaches the Secretary later than the scheduled date will be accepted only upon payment of \$5 in addition to the regular examination fee of \$10.

When a candidate has failed to obtain the required blank form of application, the regular examination fee will be accepted if the fee arrive not later than the date specified above and if it be accompanied by a memorandum with the name and address of the candidate, the exact examination center selected, and a list of the subjects in which the candidate is to take the Board examinations. Candidates who have failed to file applications for examination may be admitted by the supervisor upon payment of a fee of \$5 in addition to the regular examination fee. Such candidates should present themselves at the beginning of the period of registration. They will receive from the supervisor blank forms of application which must be filled out and transmitted to the Secretary of the College Entrance Examination Board.

In order to exhibit their tickets of admission, to present their identification cards, and to obtain seats in the examination room, candidates should report for a morning examination at 8:45 and for an afternoon examination at 1:45. An examination will close for candidates admitted late at the same time as for other candidates. The examinations will be held in accordance with the time (Standard Time or Daylight Saving Time) observed in the local schools.

No candidate will be admitted to the Scholastic Aptitude Test late, that is, after the test has begun.

The Scholastic Aptitude Test may be taken upon the completion of the school course or at the end of the third year of secondary school work. Each candidate desiring to take this test, even though he is to take no other examination, must file with the Secretary of the Board the usual application for examination. If the Scholastic Aptitude Test is taken in connection with other examinations, no additional fee is required; if taken alone, the fee is \$10.

A week in advance of the Scholastic Aptitude Test each candidate who is to take the test should receive a booklet containing, with explanations and instructions, a specimen test, the blank spaces of which are to be filled in by the candidate. In order to secure admission to the test, the candidate must present not only his ticket of admission but also this booklet with the spaces filled in as requested.

It is very desirable that candidates who are to take the Scholastic Aptitude Test file their applications with the Secretary. Applications for the test will be accepted by the supervisor, however, up to the day before the test provided the supervisor's supply of material for the Scholastic Aptitude Test is sufficient.

ADVANCED STANDING

For favorable consideration, applicants for advanced standing must have had a high scholastic record in the institution from which they wish to transfer, and must present full credentials for both college

WORK OF FIRST TWO YEARS

and preparatory work and a letter of honorable dismissal. In general, students are not admitted to advanced standing later than the beginning of the Sophomore year.

Applications of women applicants must be filed by January 1.

REQUIREMENTS FOR GRADUATION

Swarthmore College offers (1) General Courses leading to the degree of Bachelor of Arts and to the degree of Bachelor of Science, and (2) Honors Work leading to these same degrees with honors. Four years of resident study are normally required for the completion of the work leading to any of these degrees. The work of the first two years for all students is in General Courses. During the last two years, qualified students may read for Honors. The subjects of instruction are classified according to departments, and the departments are grouped into four divisions*: The Division of the Humanities, the Division of the Social Sciences, the Division of Mathematics and the Natural Sciences, and the Division of Engineering.

In addition to scholastic requirements for graduation, all students are held for physical training as set forth in the statement of that department (see pp. 89, 91) and for attendance at the Collection exercises of the College (see p. 19).

Beginning in September, 1934, Swarthmore College abandoned the hour credit system and undertook to measure the student's progress in terms of courses, each of which represents one-fourth of his time for one year.

WORK OF THE FIRST TWO YEARS

The work of the first two years is identical in outline for all students, although the subjects of study vary. (Exceptions in the Division of Engineering are noted on p. 66.) Each student takes normally during each of these two years four full courses or their equivalent. Courses are scheduled usually for three class meetings per week, each meeting of one hour's duration. Seminar and laboratory periods of longer duration may be substituted for one or more of these meetings. Courses which are scheduled for one semester are counted as half courses.

^{*}For grouping of departments see page 12.

The subjects of study during the first two years include: (a) the minimum language requirements, as outlined below, (b) one year's work in each of three Divisions, Humanities, Social Sciences, Natural Sciences, (c) prerequisites for major and minor work in the Division of the student's choice, and (d) electives, approved by the course adviser.

The minimum language requirements are as follows:

1. English: Each student is expected at entrance to college to be able to use the English language with accuracy and clarity. Any deficiency must be removed by special work before the beginning of the Sophomore year.

2. Foreign languages: Each student will pursue in college one foreign language (French, German, Greek, Latin, or Spanish) to a point equivalent to the completion of Course III or two languages to a point equivalent to the completion of Course II. Admission to Courses II and III will be determined by placement tests given on entrance to college. The standard for admission to Course II is such as might reasonably be expected from a student who has had two years' preparation in the language; the standard for admission to Course III is such as might reasonably be expected from a student who has had four years' preparation. Majors in English may satisfy the requirements with French, German, Latin, or Greek (see p. 71). German is required for majors in mathematics and the natural sciences, Greek, for majors in Latin; Latin, for majors in French. Students who are thus required to begin a new language in college will arrange if possible to do the elementary work prerequisite to admission to Course II outside their regular college work.

WORK OF THE LAST TWO YEARS

The work of the last two years in General Courses must include a major, one related minor, and electives; in Honors, the work consists of a major and two related minors; in both cases majors and minors must fall in the same Division. Regulations for the degree in General Courses and in Honors follow.

GENERAL COURSES

Each student in General Courses offers for graduation at least four full courses or their equivalent in his major subject and at least three full courses or their equivalent in his minor subject.

HONORS WORK

The satisfactory completion of sixteen full courses, or their equivalent, normally constitutes the course requirement for a degree in General Courses. A student may carry extra work with the approval of his course adviser and of the Committee on Extra and Prescribed Work. In addition to completing his courses, the student must present himself at the end of his Senior year for a comprehensive examination in his major subject, set by the faculty of the major department. –

HONORS WORK

Students who have shown themselves capable of higher than average intellectual achievement are permitted to read for the bachelor's degree with honors during their last two college years. The theory underlying honors work was outlined by President Aydelotte in his inaugural address at Swarthmore College on October 22, 1921, as follows:

"We are educating more students up to a fair average than any other country in the world, but we are wastefully allowing the capacity of the average to prevent us from bringing our best up to the standards they could reach. Our most important task at the present is to check this waste. The method of doing it seems clear: to give to those students who are really interested in the intellectual life harder and more independent work than could profitably be given to those whose devotion to matters of the intellect is less keen, to demand of the former, in the course of their four years' work, a standard of attainment for the A.B. degree distinctly higher than we require of them at present. . . . With these abler students it would be possible to allow them to specialize more because their own alertness of mind would of itself be sufficient to widen their intellectual range and give them that acquaintance with other studies necessary for a liberal point of view. . . . Our examinations should be less frequent and more comprehensive, and the task of the student should be to prepare himself for these tests through his own reading and through the instruction offered by the college."

Honors work is offered in four divisions* and is under the supervision of committees of the departments which compose those divisions. Small groups of students meet their instructors for weekly confer-

*See Page 12.

ences; in scientific subjects they may spend much additional time in the laboratory. The work is so planned that a student takes not more than two subjects in any one semester. He devotes half the time of his two years of honors work to the subject of his major interest and divides the other half between two related subjects within his division, unless special exceptions are permitted under the rules of his division or are approved by the Instruction Committee of the Faculty.

Honors students are excused from ordinary examinations and class requirements and their work is not graded from semester to semester. Instead, they are expected to spend their time in mastering a definitely outlined field of knowledge, and at the end of their senior year to take written and oral examinations given by examiners from other institutions.† Upon the recommendation of these examiners candidates are awarded the bachelor's degree with honors, high honors, or highest honors. In the case of a candidate whose work is not, in the opinion of the examiners, of sufficiently high quality for honors, his examination papers shall be returned to the division concerned. The division shall consider the papers as a substitute for the comprehensive examination required for degrees in course and shall determine on the basis of these papers and a supplementary oral examina-

+Honors Examiners, May, 1935.

DIVISION OF THE SOCIAL SCIENCES

Economics:

Economics: PROFESSOR WILLARD THORPE, National Recovery Administration PROFESSOR FRANK WHITSON FETTER, Haverford College Political Science: DR. PAUL LEWINSON, Washington, D. C. PROFESSOR EUGENE P. CHASE, Lafayette College

History: PROFESSOR WILLIAM E. LINGELBACH, University of Pennsylvania PROFESSOR WALLACE NOTESTEIN, Yale University DUMAS MALONE, editor, Dictionary of American Biography DR. ALICE BEARDWOOD, Philadelphia

Philosophy:

PROFESSOR GEORGE THOMAS, Dartmouth College

DIVISION OF THE HUMANITIES

English:

PROFESSOR EDWARD S. NOYES, Yale University PROFESSOR WILLARD THORP, Princeton University

History: PROFESSOR WILLIAM E. LINGELBACH, University of Pennsylvania PROFESSOR WALLACE NOTESTEIN, Yale University DUMAS MALONE, editor, Dictionary of American Biography DR. ALICE BEARDWOOD, Philadelphia

Philosophy:

PROFESSOR GEORGE THOMAS, Dartmouth College

Fine Arts:

PROFESSOR KENNETH J. CONANT, Harvard University School of Architecture Classics:

PROFESSOR GEORGE D. HADZSITS, University of Pennsylvania French:

PROFESSOR LOUIS CONS, Columbia University

Psychology: PROFESSOR HARRY HELSON, Bryn Mawr College

COMBINATIONS OF MAJORS AND MINORS

tion whether or not the candidate is entitled to the degree in course.

Students admitted to honors work who prove unable to meet the requirements or who for other reasons return to regular classes may on the recommendation of their division, take examinations set by their instructors and receive proportional course credit for the work they have done while reading for honors.

Regulations governing possible combinations of major and minor subjects in the four divisions appear below. Lists of seminars offered in preparation for examinations follow departmental statements of general courses.

COMBINATIONS OF MAJORS AND MINORS

DIVISION OF THE HUMANITIES

Major subjects include English, French, German, Greek, History, Latin, Philosophy and Psychology: related minor subjects include those already listed, and Fine Arts. Half of the student's time must be devoted to his major subject, the remainder being equally divided between two related subjects within the division.

DIVISION OF THE SOCIAL SCIENCES

Major and minor subjects include Economics, History, Philosophy, Psychology, and Political Science. Students in this division may devote half their time to their major subject, dividing the remainder equally between two related subjects; or they may do an equal amount of work in two departments (one of which is to be designated as the major department) and spend a quarter of their time on another subject.

DIVISION OF MATHEMATICS AND THE NATURAL SCIENCES Mathematics: PROFESSOR J. R. KLINE, University of Pennsylvania PROFESSOR GAYLORD P. HARNWELL, Princeton University PROFESSOR GAYLORD P. HARNWELL, Princeton University Chemistry: PROFESSOR HERBERT S. HARNED, Yale University PROFESSOR HERBERT S. HARNED, Yale University PROFESSOR FRANK C. WHITMORE, Pennsylvania State College Botany: PROFESSOR EDGAR T. WHERRY, University of Pennsylvania Zoology: DR. CARL G. HARTMAN, Carnegie Institute of Washington DR. O. E. NELSEN, University of Pennsylvania DIVISION OF ENGINEERING Civil Engineering: PROFESSOR S. G. GEORGE, Cornell University Electrical Engineering: PROFESSOR J. C. LANGE, Drexel Institute Mechanical Engineering: PROFESSOR JOSEPH H. KEENAN, Massachusetts Institute of Technology

DIVISION OF MATHEMATICS AND THE NATURAL SCIENCES

Major subjects include Botany, Chemistry, Mathematics, Physics, Zoölogy; related minor subjects include the subjects listed, Astronomy, Philosophy, and Psychology. At least half of the student's time will probably be devoted to his major subject, with the remainder divided between two other related subjects within the division.

DIVISION OF ENGINEERING

Honors work in this division is conducted jointly by the departments of Civil Engineering, Electrical Engineering, and Mechanical Engineering, and leads to the degree of B.S. with honors.

At least half of the student's time will be devoted to his major in Engineering, the remainder to be applied to one or two minors in Engineering, Mathematics, Physics, Chemistry or Economics.

PROCEDURE FOR ADMISSION TO HONORS WORK

A candidate for admission to an honors division must file his application in the spring of his sophomore year with the chairman of his major departments, and must indicate the particular combination of related subjects on which he wishes to be examined for his degree. His acceptance by the division depends in part upon the quality of his previous work as indicated by the grades he has received but mainly upon his seeming capacity for assuming the responsibility of honors work. The names of successful candidates are announced later in the spring. The major department will then arrange, in consultation with the student, a definite program of subjects to constitute the field of knowledge on which he will be examined at the end of his senior year. That department is responsible for drawing up the original plan of his work, for supervising his choice of seminars in all departments and for keeping in touch with his progress from semester to semester. The division is responsible for approval of the student's original program and for any subsequent changes in that program. Proposals for combinations of subjects or departments not provided for in the divisional arrangements must be submitted by the division to the Instruction Committee of the Faculty for final approval.

COURSE ADVISERS

The course advisers of Freshmen and Sophomores are the Dean of Men and the Dean of Women, in co-operation with the Chairmen of Departments in which the students are majoring. For students in courses in the Junior and Senior classes, the advisers are the Chairmen of their Major Departments; and for Honors students the advisers are the Chairmen of their Honors divisions.

SYSTEM OF GRADES

Instructors report to the Dean's office four times a year upon the work of students in Courses. At mid-semesters the reports are simply in the terms, Satisfactory and Unsatisfactory. At the end of each semester formal grades are given in each course under the letter system, by which A means excellent work; B means good work; C means fair work; D means poor work, and E shows failure. W signifies withdrawn and *Cond.* signifies conditioned in the course.

For graduation in General Courses, a C average is required; for graduation in Honors work, the recommendation of the external examiners. (See p. 42.)

The mark "conditioned" indicates either (1) that a student has done unsatisfactory work in the first half of a course, but by creditable work during the second half, may earn a passing grade for the full course, and thereby remove his condition; (2) that a student's work is incomplete in respect to specific assignments or examinations, but otherwise satisfactory; when he completes it, he will remove his condition.

Reports are sent to parents four times a year, and to students at mid-semesters and at mid-year.

REMOVAL OF CONDITIONS

Members of the graduating class must make up all outstanding conditions and deficiencies by the end of the first semester of the Senior year, and no student whose record is not then clear shall be considered a candidate for graduation in that year.

All conditions must normally be made up in the semester immediately following that in which the work reported as conditioned was done, and as early in the semester as possible; by special permission of the instructor concerned the time for making up the condition may be extended to the second semester following in case (I) the course for which the condition was imposed was not repeated until said second semester, or (2) it is considered necessary by the instructor that the student should make up part or all of the class or laboratory work involved at the time the course is repeated. Any condition not made up within a year from the time it is imposed shall thereafter have the effect upon the records of an E, *i. e.*, complete failure, which cannot be made up.

SUMMER SCHOOL WORK

Students desiring to transfer credit from a university summer school are required to obtain the endorsement of the chairman of the department concerned before entering upon the work, and after completing the work are required to pass an examination set by the Swarthmore department.

CO-OPERATION WITH NEARBY INSTITUTIONS

Since 1933, Swarthmore College and three nearby institutions—the University of Pennsylvania, Bryn Mawr College, and Haverford College—have been developing a co-operative plan which involves some sharing of libraries and occasional interchange of instructors and students. By special arrangement students at Swarthmore may enroll for work in one of the other three institutions.

ATTENDANCE AT CLASSES AND COLLECTION

Members of the Faculty will hold students responsible for regular attendance at classes.

The last meeting before vacation and the first meeting after vacation *in each course* must be attended. The minimum penalty for violation of this rule is probation: for absence at Thanksgiving, probation until the end of the semester; for absence at Christmas, probation until spring vacation; for absence at Washington's Birthday, probation until May 1; and for absence at spring vacation, probation for the rest of the year. The exact definition of probation in individual cases is left to the Deans with the understanding that it shall include attendance at all classes without cuts.

Absences from Collection are acted upon by the Collection Committee of the Faculty, which may give excuses for non-attendance by day students under certain conditions. All students are allowed two absences from Collection each semester.

ABSENCES FROM EXAMINATION

Any student who is absent from an examination, announcement of which was made in advance, shall be given an examination at another hour only by special arrangement with the instructor in charge of the course.

No examination *in absentia* shall be permitted. This rule shall be interpreted to mean that instructors shall give examinations only at the college and under direct departmental supervision.

REQUIREMENT OF VACCINATION

All accepted applicants for admission must present a certificate of successful vaccination.

INFIRMARY REGULATIONS

1. Students suffering from a communicable disease or from illness which makes it necessary for them to remain in bed must stay in the infirmaries for the period of their illness.

2. ABSENCE FROM CLASSES.—When illness necessitates absence from classes the student should report at once to the nurses or to the college physicians.

3. Students have the opportunity to select their own physicians. The college physicians are available at their office hours for advice on matters of health. No charge is made for their service during office hours.

REGULATION AGAINST MAINTENANCE OF AUTOMOBILES AT SWARTHMORE

By action of the Faculty, approved by the Board of Managers, undergraduates are forbidden to maintain automobiles at the College or in the Borough of Swarthmore. The regulation is as follows:

Resident students are not allowed to keep automobiles on the campus or in the Borough of Swarthmore. The rule prohibits equally the keeping of automobiles owned by students and those owned by other persons but placed in the custody or control of students. Day students may use cars in commuting to college.

Under exceptional circumstances, a student may obtain permission from one of the Deans to keep an automobile in the Borough for a limited time.

Parents and students must realize that this regulation will be strictly enforced; students who do not observe it will be asked to withdraw from College.

EXCLUSION FROM COLLEGE

The College reserves the right to exclude at any time students whose conduct or academic standing it regards as undesirable, and without assigning any further reason therefor; in such cases the fees due or which may have been paid in advance to the College will not be refunded or remitted, in whole or in part, and neither the College nor any of its officers shall be under any liability whatsoever for such exclusion.

DEGREES

BACHELOR OF ARTS

BACHELOR OF SCIENCE

The degrees of Bachelor of Arts and Bachelor of Science are conferred upon students who have complied with the requirements for graduation as stated on pages 39-45.

MASTER OF ARTS

MASTER OF SCIENCE

1. The degrees of Master of Arts and Master of Science may be conferred upon graduates of Swarthmore College or of other institutions of satisfactory standing who spend at least a year in residence at this College, pursuing a course of study approved by the faculty. Each candidate for the Master's degree must prepare a satisfactory thesis on a subject assigned by the professor in charge of the major subject, and must pass a final oral examination before a committee of the faculty. In recent years comparatively few students have been accepted for work for the Master's degree. Terms for admission and for fulfillment of the faculty requirements will be supplied upon application to the Dean.

ADVANCED ENGINEERING DEGREES

The advanced degrees of Mechanical Engineer (M.E.), Electrical Engineer (E.E.), and Civil Engineer (C.E.), may be obtained by graduates who have received their Bachelor's degree in Engineering upon the fulfilling of the requirements given below:

1. The candidate must have been connected with practical engineering work for three years since receiving his first degree.

2. He must have had charge of engineering work and must be in a position of responsibility and trust at the time of application.

3. He must make application and submit an outline of the thesis he expects to present, one full year before the advanced degree is to be conferred. After this application is made he will receive an outlined course of study to pursue during the year.

4. The thesis must be submitted for approval, and satisfactory evidence given that the reading requirement has been met one calendar month before the time of granting the degree.

5. Every candidate shall pay a registration fee of \$5 and an additional fee of \$20 when the degree is conferred.

EXPENSES

EXPENSES

The charge for tuition is \$400 a year, payable in advance. No reduction or refunding of the tuition charge can be made on account of absence, illness, dismissal during the year, or for any other reason.

The charge for living at college is \$500, of which at least half is payable in advance. The remainder is due on the first of January.

If any student for any reason shall withdraw or be withdrawn from College, no portion of the payment for room-rent shall be refunded or remitted.

In case of absence from the College extending over a continuous period of six weeks or more, there will be a special proportionate reduction in the charge for board provided that written notice be given to the Comptroller at the time of withdrawal. Oral notice will not be sufficient to secure this allowance.

Bills for the first payment are mailed before the opening of the College year and bills for the second payment are mailed before the first of January following. Payments shall be made by check or draft to the order of SWARTHMORE COLLEGE, SWARTHMORE, PA. Every student is responsible for prompt payment.

In case bills for the first semester are not paid by November 1, and bills for the second semester by March 1, students owning such bills may be excluded from all College exercises.

Students withdrawing or dismissed from College on or before the end of the first semester receive no benefit from scholarships, as scholarships are credited at the beginning of the second semester.

All students except Freshmen choose their rooms in order determined by lot. Freshmen are assigned to rooms in order of date of application for admission.

A deposit of \$50 will be required of each student, payable with the regular September bill, to cover incidental bills including books, laundry, telephone and room breakage. Personal laundry sent to the commercial laundry employed by the College may be charged against the deposit. When this deposit has been exhausted a new deposit will be required immediately. Any unused balance will be returned at the end of each year.

Special students who enroll for less than the prescribed number of courses will be charged \$50 per half course.

Faculty rates for the dining-room are: per college year, \$300; per month, \$40; per week, \$9.50; single breakfast, 30 cents; single lunch, 45 cents; single dinner, 65 cents.

The College dining-room is closed during the Christmas and spring

recesses. The College dormitories are closed during the Christmas recess. Students leaving property in any College building during the summer recess do so at their own risk.

In September, students are not admitted to the dormitories before the day preceding registration except by special permission in advance from the Deans.

All Freshmen must leave the College immediately after their last examination in the spring in order that their rooms may be used by Commencement visitors.

Students purchase their own books, stationery and drawing instruments, which may be obtained at the College Bookstore at low rates. The following fees are charged in laboratory sciences:

General Engineering 1.....\$10.00 per semester Freshman Engineering 5..... 15.00 per semester Sophomore Engineering 6..... 15.00 per semester Electrical Engineering 9..... 10.00 per semester Heat Power Engineering 12..... 10.00 per semester Civil Engineering Option 14..... 5.00 per semester Electrical Engineering Option 15..... 5.00 per semester Mechanical Engineering Option 16... 5.00 per semester Administrative Engineering Option 17. 5.00 per semester Long Survey 19..... 5.00 per semester Art Metal, Woodworking 20..... 5.00 per class hour Botany 10.00 per semester Chemistry 15.00 per semester Physics 10.00 per semester Zoölogy 10.00 per semester

Students are charged a fee of \$1 a semester for the use of gymnasium and swimming pools.

The expenses of a student at Swarthmore, beyond the payments made directly to the College, vary according to the individual. Budgets reported by present students show that total expenditures for tuition, board, books, clothing, and recreation are approximately \$1,100 for the academic year.

COURSES OF INSTRUCTION

COURSES OF INSTRUCTION BOTANY

PROFESSOR SAMUEL COPELAND PALMER, Chairman INSTRUCTOR: RUTH MCCLUNG JONES PART-TIME INSTRUCTOR: NORRIS JONES

GENERAL COURSES

1. General Botany. Mr. Palmer.

Full course. A course designed to give the student a broad view of the general field of botany. Training in the use of the microscope.

2. Plant Physiology. Mr. Palmer and Mrs. Jones.

Half course, first semester. A course with laboratory work designed to give the pupil an insight into the fundamentals of plant function.

3. Evolution, Genetics, and Eugenics. Mr. Palmer.

The theories of evolution and closely related subjects. The fundamental principles of genetics. The application of the principles of genetics to eugenics.

4. Taxonomy. Mr. Palmer.

Half course, second semester.

A course devoted to a study of the horticultural as well as native species and varieties of the campus and woods. A large number of species are available for comparison.

5. Plant Morphology. Mrs. Jones.

Half course, first semester.

A course open to biology majors to introduce the technique of normal tissue preparation.

6. Scientific Drawing. Mr. Jones.

Full course.

Full course.

An elementary course in freehand drawing and painting for those who wish to learn the proper methods of graphic represention of biological studies.

7. Cytology. Mrs. Jones.

Half course, second semester.

An advanced course including a study of both cytoplasmic and nuclear structures. Prerequisite either Botany 5 or Zoölogy (Histology).

8. Advanced Scientific Drawing.

Special problems in biological illustrating. Prerequisite Botany 6.

51

9. Cryptogamic Botany. Mr. Palmer.

Half course, first semester.

A course with laboratory work designed to give the student an insight into the lower forms of plant life.

10. Geology. Mr. Palmer.

Half course, first semester.

A lecture course in general geology designed to acquaint the student with the forces at work fashioning the earth into its present form. Some time given to the study of historical geology, with special reference to the problem of evolution.

11. Special Topics. Mr. Palmer, Mr. and Mrs. Jones.

Open to Seniors who wish to do special advanced work. Hours to be arranged with the instructor.

Numerous libraries, museums and parks in and around Philadelphia offer unusual opportunities to students to carry on investigations in the botanical sciences.

HONORS WORK

Prerequisites. The following regular courses, or their equivalents, are required for admission to Honors work in Botany: General Botany, General Zoölogy, General Inorganic Chemistry.

Topics of Final Examinations. Honors Seminars are offered preparing students for examination papers in:

- 1. Botanical History: A study of the development of biology from an historical standpoint with special reference to botany.
- 2. Organic Evolution: An examination of the most important theories of present and past with a study of types to illustrate.
- 3. Plant Physiology: A study of the most important of plant functions such as Osmosis, Photosynthesis, transpiration, translocation, digestion, Enzyme action, etc.
- 4. Genetics: A study of the structure and development of the cell-theories of inheritance, Mendelism, Eugenics, etc.
- 5. Plant Distribution: Studies involving problems in distribution of plants including soil relations, desert areas, water relations, etc., and their economic importance.
- 6. Taxonomy: A close study of the classification and distribution of the most important of our plant families with field work. A history of the development of classification systems will be included.
- 7. Plant Morphology: A detailed study of plant tissues particularly from the cytological point of view.

52

COURSES OF INSTRUCTION

CHEMISTRY

PROFESSORS: H. JERMAIN CREIGHTON, Chairman Edward H. Cox Assistant Professor Duncan G. Foster Instructor, Walter B. Keighton, Jr. Research Associate, Robert E. Steiger

GENERAL COURSES

1. Inorganic Chemistry. Mr. Creighton and Mr. Keighton.

Full course.

Lectures, demonstrations, written exercises, individual laboratory practice and weekly conferences on the general principles of inorganic chemistry. This course is primarily for students majoring in chemistry and the other sciences and is a prerequisite for Chemistry 2. It consists of two lectures, one four-hour laboratory period and a one-hour conference weekly. Text-books: Hildebrand, Principles of Chemistry; Bray and Latimer, A Course in General Chemistry.

1A. General Chemistry. Mr. Creighton and Mr. Keighton.

Full course.

Lectures, demonstrations and individual laboratory practice on general chemistry, designed for those who desire to pursue a course in chemistry as an element of general culture rather than as a part of their professional training, and who desire to gain some knowledge of the spirit of a branch of science on which much of our present-day civilization is based. It is recommended for students of the liberal arts who elect chemistry to meet the college science requirements. Inorganic chemistry is studied until the first of March; the remainder of the year is devoted to an elementary survey of organic chemistry. The course consists of two lectures and one three-hour laboratory period weekly. It is not accepted as a prerequisite for Chemistry 2. Text-books: Findlay, *The Spirit of Chemistry*; Dening, *The Realm of Carbon*.

2. Analytical Chemistry. Mr. Foster.

Full course.

First semester: Qualitative analysis. The theory and practice of the detection of the commoner chemical elements. Text-book, Hammett, Solutions of Electrolytes.

Second semester: Quantitative analysis: The principles and practice of volumetric analysis. Text-book, Talbot, *Quantitative Chemical Analysis*. Reference-book, Fales, *Inorganic Quantitative Analysis*.

One lecture, one recitation or conference and two laboratory periods per week. Prerequisite, Chemistry 1.

3. Introduction to Physical Chemistry. Mr. Creighton.

Half course, second semester.

Lectures and laboratory work. An elementary course primarily for students taking Physiology-Zoölogy as their major subject. Text-books: Maass and Steacie: Introduction to Physical Chemistry. Prerequisite, Chemistry I.

4. Analytical Chemistry. Mr. Foster.

Full course. Offered every other year alternately with Chemistry 5. A laboratory course in the principles of gravimetric analysis, organic and gas analysis. Text-books, Talbot, Quantitative Chemical Analysis; Gattermann, Praxis des Organischen

Chemikers; reference-books, Treadwell-Hall, *Analytical Chemistry* and Fales, *Inorganic Quantitative Analysis*. Nine hours laboratory work with conferences when necessary, to be arranged at the beginning of the course. Given 1935-36.

5. Physical Chemistry. Mr. Keighton.

Full course. Offered alternate years.

Two hours of conference and lectures and one four-hour laboratory period weekly. The lectures and conferences include elementary chemical thermo-dynamics; equilibria and chemical kinetics; the physical properties of gases, liquids, and crystals; the properties of solutions; elementary electrochemistry; colloids; and the structure of matter. In the laboratory students determine molecular weights; measure such properties as surface tension, vapor pressure, and viscosity of pure liquids; investigate the rates of chemical reactions; make observations on the behavior of solutions; and acquaint themselves with the use of the refractometer, the polarimeter, and other physical-chemical apparatus. Books recommended: Getman and Daniels, Outlines of Theoretical Chemistry; Findlay, Practical Physical Chemistry; Daniels, Mathews, and Williams, Experimental Physical Chemistry; Mack and France, Laboratory Manual of Elementary Physical Chemistry.

Prerequisites, Chemistry 1 and a course in General Physics. This course is offered to Juniors and Seniors and alternates with Chemistry 4. Given 1936-37.

6. Organic Chemistry. Mr. Cox.

Lectures, demonstrations, written exercises, and laboratory work. Two lectures, one conference, and one four-hour laboratory period a week. In the laboratory, students carry out syntheses of various organic compounds, as given in Adams and Johnson, Laboratory Experiments in Organic Chemistry; Gilman, Organic Syntheses, and current journal articles. The lectures follow texts of the type of Conant, Organic Chemistry, supplemented with special chapters in Schmidt-Rule, Organic Chemistry, and current journal articles. Prerequisite Chemistry 1.

7. Engineering Chemistry. Mr. Foster.

First semester.

Full course.

Second year requirement for engineering students. Two hours of class-room work per week covering the subject matter of Leighou's *Chemistry of Engineering Materials*. This course together with its continuation by the Engineering Department in the second semester counts as a *half-course*.

HONORS WORK

The Department offers the following Honors Seminars:

I. Analytical Chemistry. Mr. Foster.

Second semester.

A laboratory seminar designed to give the student as thorough a groundwork in the principles and practice of quantitative analytical chemistry as the time will allow. Approximately eighteen hours a week are spent in the laboratory under the guidance, but not the supervision of the instructor, carrying out examples of gravimetric, organic, combustion and gas analytical methods.

11. Physical Chemistry. Mr. Creighton and Mr. Keighton.

Both semesters.

Weekly seminar and laboratory. The work of the seminar includes the study of the states of aggregation of matter, elementary principles of thermodynamics, chemical kinetics and

54

equilibrium, the theory of solutions, photochemistry, electrochemistry and colloid chemistry. One day per week is spent in the laboratory.

III. Advanced Physical Chemistry. Mr. Creighton.

Second semester.

Weekly seminar and laboratory. The work of the seminar includes the study of recent advances in the theory of valence, the parachor, dipole moments, polarization and overvoltage, thermodynamics, the activity concept, and activity coefficients, the Debye-Hückel theory of strong electrolytes, and acid-base catalysis. One day per week is spent in the laboratory.

IV. Organic Chemistry. Mr. Cox.

First semester.

Conferences and laboratory work. A five hour conference and an eight hour laboratory period once a week. The ground work for the conferences is taken from such texts as, Conant, Reid, Schmidt-Rule, and is covered in three months. For the remaining time, students prepare written papers for discussion on reaction mechanisms and advanced topics. In the laboratory, students prepare various organic compounds as given in Adams and Johnson, *Laboratory Experiments in Organic Chemistry*.

V. Organic Chemistry. Mr. Cox.

First semester.

For students of Zoölogy-Physiology. The conferences and laboratory follow those given in Honors IV except that the biological aspects of organic chemistry are stressed. In addition to organic texts and manuals students consult Mathews, Bordansky, Hawk-Bergheim. Comprehensive papers are prepared on carbohydrates, fats, and proteins.

VI. Advanced Organic Chemistry. Mr. Cox.

Second semester.

A continuation of Honors IV. Students write 15 weekly comprehensive papers on advanced topics. These papers are gathered from Reviews, Monographs and original English, French, and German articles. In the laboratory students prepare more difficult organic compounds. Students are given a short sight reading in scientific French and German.

REQUIREMENTS FOR MAJOR AND MINOR

Students majoring in chemistry follow a course of study leading to the degree of A.B. This degree may be taken either in general courses or with Honors. In either case there must be completed, during the first two years the following: Two courses in chemistry, two courses in mathematics, one course in physics, and two courses in German (or their equivalent).

In the junior and senior years, students in general courses are required to complete courses 4, 5 and 6 in the department of chemistry and to complete the requirements in their minor subject. For students who have been accepted for Honors work there are offered Honors

seminars preparing them for examination papers in: 1. Analytical Chemistry, 2. Physical Chemistry, 3. Advanced Physical Chemistry, 4. Organic Chemistry, 5. Advanced Organic Chemistry. At the end of their senior year, Honors students majoring in chemistry take (1) not less than four nor more than five examination papers in Chemistry; (2) one paper in Physics; (3) and the remaining papers in topics selected from the following: Mathematics, Physics, Philosophy, Physiology.

For admission to minor Honors work in chemistry, one *full* course in chemistry is a prerequisite.

Students intending to prepare for the medical profession will find it to their advantage to take as many as possible of the following courses in chemistry: Nos. 1, 2, 3 or 5, 6.

COURSES OF INSTRUCTION

CLASSICS

PROFESSORS: *ETHEL HAMPSON BREWSTER, Chairman L. R. SHERO

GREEK

GENERAL COURSES

1. Elementary Greek. Mr. Reuning (of the Department of German).

Study of the essentials of Greek grammar and reading of easy selections from Greek literature, with collateral study of various aspects of Greek civilization.

This course and course 2 are provided for those who have not had an opportunity to study Greek in the preparatory school.

2. Intermediate Greek. Mr. Shero.

Full course.

Selections from Homer and from Herodotus, Plato's *Apology*, and a tragedy are read. Students planning to read for honors will be permitted to combine part of the work of this course with part of the work of Latin 4.

3. Greek Survey. Mr. Shero.

Full course. (Offered as required.)

A survey of Greek literature with reading of some of the masterpieces of prose and of poetry of the classical period.

4. Advanced Greek Reading. Mr. Shero.

Full course. (Offered as required.)

The reading done in this course is determined by the interests and needs of the members of the class.

5. The History of Greece. Mr. Shero.

Half course, first semester.

A study of Greek civilization in its most significant aspects to the time of the Hellenistic Kingdoms, preceded by a brief survey of the Oriental civilizations by which the Greeks were influenced. Special attention is given to the 6th and 5th centuries B.C.

This course and Latin 9 (The History of Rome) provide a year's work in Ancient History.

6. Greek Drama in English. Mr. Shero.

Half course, second semester.

A study, in translation, of the extant Greek plays and of some of the Latin adaptations from the Greek, with consideration of the influence of Greek and Latin drama on later literature. No knowledge of Greek or Latin is required.

LATIN

GENERAL COURSES

1. Sub-Freshman Latin.

Full course. (Offered as required.)

A study of grammar and selected readings. Designed for those who begin Latin in college or for those who are not prepared to enter Latin 2.

*Absent on leave, 1935-36.

2. Intermediate Latin. Mr. Shero.

Half course, each semester.

Selections from prose and verse writers. Designed for students who have had three or more years of preparatory Latin and are not prepared to enter Latin 3. This course may be taken for a single semester.

3. Latin Survey. Mr. Shero.

A survey of Latin literature with emphasis upon Plautus, Livy, and Horace. The course aims to give students some conception of the Roman spirit as manifested in Latin literature and in the personality of Latin writers. Open to those whose Placement Tests indicate adequate preparation.

4. Advanced Latin Reading. Mr. Shero.

Half course, each semester.

Catullus, Virgil's Eclogues and Georgics, selections from the Letters of Cicero and of Pliny, Tacitus's Agricola.

Students planning to read for honors will be permitted to combine part of the work of this course with part of the work of Greek 2 or Greek 3.

5. Roman Drama, Satire, and Epigram. Miss Brewster.

Half course, each semester. (Omitted in 1935-36.)

6. Latin Philosophical Writings. Miss Brewster.

Half course, each semester. (Omitted in 1935-36.)

7. Latin Language and Prose Composition. Miss Brewster.

Half course, first semester. (Omitted in 1935-36.)

This course comprises a review of forms and syntax, practice in reading and writing Latin, and the translation of Latin (including mediaeval Latin) at sight.

8. Comprehensive Survey. Miss Brewster.

Half course, second semester. (Offered as required.)

Review readings and supplementary reading in Latin authors and in modern authorities on Roman history, public and private life, art, literature, and religion. Designed to enable students, through independent study and occasional conferences, to prepare themselves for final comprehensive examinations. Open to Seniors with a major in Latin, who may substitute this work for part of either course 5 or course 6.

9. The History of Rome. Miss Brewster.

Half course, second semester. (Omitted in 1935-36.)

A study is made, through lectures, reading, and reports, of the history of Rome from the earliest times to the accession of Marcus Aurelius. The course stresses the Roman genius for organization and administration.

This course and Greek 5 (The History of Greece) provide a year's work in Ancient History.

The department will recommend as teachers of Latin only those who have completed at least Courses 3, 4 and 7, or, in the case of Honors students, those who have completed Courses 3 and 7.

58

HONORS WORK

Prerequisites. The following regular courses are required for admission to Honors work—for a major in Classics or Latin: Greek Courses I and 2, Latin Courses 3 and 4; for a major in Greek: Greek Courses I and 2, Latin Course 3; for a minor in Greek or Latin: Greek Courses I and 2, or Latin Courses 3 and 4 respectively.

Students are advised to take also The History of Europe and Introduction to Philosophy.

Topics of Final Examination. Honors seminars are offered preparing students for examination papers as follows:

Required for a major in Classics:

- 1. History of Ancient Greek and Roman Civilization, a survey concentrating upon political institutions, art, and religion.
- 2. Intensive Study of a Special Period of Greek or Roman History (e.g. Solon to the end of the Peloponnesian War, the Gracchi to Nero).
- 3. Greek Philosophy. (See p. 88)
- 4. Greek or Latin Prose Composition and Sight Reading.
- 5. Prose Authors: Greek (Thucydides, Plato, the Attic orators), or Latin, with emphasis upon Cicero and the historians.
- 6. Poets: Greek, with emphasis upon Epic and Tragedy; Latin, with emphasis upon Epic (including Lucretius) and Satire.

By special arrangement, students may substitute for one of the above a paper on one of the following topics:

- 7. An additional group of selected authors, Greek or Latin.
- 8. Greek and Roman Archaeology.
- 9. Greek and Roman Literary Theory.
- 10. Greek and Roman Political Thought.

Required for a major in Greek or Latin: Nos. 5, 6, and either 3 or 4 and one elective from the groups above.

Required for a minor in Greek or Latin: Nos. 5 and 6 above, and an additional paper testing Translation at Sight.

ECONOMICS

PROFESSORS: CLAIR WILCOX, Chairman HERBERT F. FRASER

Assistant Professor: *Patrick Murphy Malin

LECTURERS: LOUIS N. ROBINSON WILLIAM N. LOUCKS RALPH A. YOUNG

PART-TIME INSTRUCTORS: J. WELDON HOOT RICHARD W. SLOCUM

GENERAL COURSES

INTRODUCTORY COURSES

1. Introduction to Economics, Messrs. Fraser, Loucks and Hoot.

Full course.

A descriptive account of the institutional basis of economic activity, the organization of business, the processes of production, exchange, distribution and consumption. A study of the theory of prices. An analysis of special problems such as agriculture, money and banking, the tariff, trade unionism, and the public control of business. Prerequisite to all other courses in Economics except Economics 2.

2. Methods of Economic Analysis (Engineering 2). Messrs. Johnson and Jenkins.

Full course.

This is a course intended to familiarize the student with the tools which must be used in rigorous economic study. It is an introduction to the logic and methods of quantitative investigation in the field of applied economics. One semester deals with the theory of corporate accountancy; the terminology, the functions, and the interpretations of financial statements including credit analysis and financial and operating ratios. The other semester is a study and application of fundamental statistical methods which can be used in an analysis of business conditions and changes and which aid in a clearer understanding of economic data.

Required of all Economics majors, in course or honors, during the Freshman or Sophomore year.

COURSES INCLUDED IN MAJOR COMPREHENSIVE EXAMINATION

3. Money and Banking. Mr. Young and Mr. Malin.

Full course.

Money, credit, commercial banking. The banking system of the United States, with special reference to experience since the war and to recent legislation. Prices, standards, monetary policy and control, with particular attention to recent American experiments.

Required of all Economics majors in course. Should be taken during the Junior year.

4. Economics of Business Institutions. Mr. Fraser.

Full course. (Offered in alternate years. Offered next in 1936-37.)

Corporate organization and finance. Investment banking and the securities exchanges. Marketing problems and price policies. Risk, speculation, and insurance. The economic problems which confront the business executive.

*On part-time 1935-36.

COURSES OF INSTRUCTION

5. International Economics. Mr. Fraser.

Half course, first semester. (Offered in alternate years. Offered in 1935-36.) The economic aspects of foreign trade. Analysis of the theory of international trade; the practical problems: financing, marketing, transportation, etc. The relation of governments to trade, protective tariffs, reparations, inter-ally debts and economic imperialism.

6. Public Finance. Mr. Fraser.

Half course, second semester. (Offered in alternate years. Offered in 1935-36.) A study of government expenditures, revenues and indebtedness, with particular emphasis upon the economics of taxation.

7. Government and Business. Mr. Wilcox.

Full course. (Offered in alternate years. Offered in 1935-36.) A study of federal anti-trust policy, railroad regulation, public utility regulation, the National Recovery Administration, the public control of extractive industries, the Agricultural Adjustment Administration, public regulation of corporate financial practices, and federal control of the securities exchanges.

8. Social Economics. Mr. Wilcox.

Full course. (Offered in alternate years. Offered in 1935-36.) An examination of the extent, consequences and causes of economic inequality. An appraisal of the institutions of modern capitalism and of possible methods of economic reform.

9. Laborer, Farmer and Negro. Mr. Malin.

Full course. (Offered in alternate years. Offered next in 1936-37.) An analysis of the economic status of the principal low-income groups. Examination of efforts and proposals designed to improve their position.

10. Economic Processes and Policies. Mr. Malin.

Full course or half course, first or second semester. (Offered in alternate years. Offered next in 1937-38.)

A study of natural resources, capital equipment and population, and their employment in economic activity. Analysis of progress and of conditions governing the utilization of productive possibilities. Examination of conditions governing attempted changes.

COURSES NOT INCLUDED IN THE MAJOR COMPREHENSIVE EXAMINATION

Criminology. Mr. Robinson.

Half course, second semester.

The causes of crime, criminal law and procedure, penology, prison reform and the repression of crime.

Business Law. Mr. Slocum.

Full course.

Principles of law and practical problems, primarily for the guidance of business men and women: contracts, negotiable instruments, sales of real estate and personal property, bailments, bankruptcy, decedents' estates, partnerships, corporations. Not open to students intending to enter law school.

Prerequisite, Junior standing.

HONORS WORK

1. Money and Banking. Mr. Malin.

Each semester.

The subject matter is identical with that of the course in Money and Banking (Economics 3). The method consists of systematic seminar discussion and tutorial conferences on the basis of directed readings; several short essays and one longer paper.

Required of all students taking three or four seminars in Economics. Should be taken during the Junior Year.

2. International Economics and Public Finance. Mr. Fraser.

First semester.

The subject matter is identical with that of Courses 5 and 6, above, but the topics are considered at much greater length. The method of directed reading is used, supplemented by systematic seminar discussion. Each student is expected to write papers on four topics.

3. Economic Theory and Business Institutions. Mr. Fraser.

Second semester.

The organization and financing of the business enterprise. Marketing problems and price policies. The theory of value, price and distribution. The application of economic theory to the problems of business administration. Directed reading, seminar discussion and written reports.

4. Government and Business. Mr. Wilcox.

First semester.

Government regulation of corporate financial practices, investment banking, the security exchanges, railroads and public utilities. Federal anti-trust policy, the National Recovery Administration and the Agricultural Adjustment Administration. Each student is required to engage in independent research and report to the seminar twice during the semester.

5. Social Economics. Mr. Wilcox.

Second semester.

An appraisal of the institutions of modern capitalism. An examination of the extent, consequences and causes of economic inequality. A study of economic reform, with particular reference to social insurance, socialism, the labor movement and the social use of the taxing power. Independent reading under guidance in an extensive bibliography. No written reports.

6. Thesis.

A thesis may be substituted for one of the honors examinations, under exceptional circumstances, by special arrangement.

COURSES OF INSTRUCTION

ENGINEERING

Associate Professor: Charles G. Thatcher, Chairman

PROFESSOR: SCOTT B. LILLY

Assistant Professors: Howard M. Jenkins George B. Thom

INSTRUCTORS: GEORGE A. BOURDELAIS SAMUEL T. CARPENTER JOHN D. MCCRUMM

INSTRUCTOR, PART TIME: S. W. JOHNSON

RESEARCH ASSISTANT: ALAN S. FITZGERALD

GENERAL COURSES

1. General Engineering (for non-engineers). Mr. Thatcher, Mr. Jenkins, Mr. Lilly.

Full course.

Study of materials, fuels, steam, internal combustion, water power, electrical engineering, calculating instruments, surveying, municipal engineering.

Prerequisite, High School or College algebra, trigonometry, physics. Chemistry desirable.

*2. Methods of Economic Analysis. Mr. Johnson and Mr. Jenkins.

Full course.

This is a course intended to familiarize the student with the tools which must be used in rigorous economic study and is an introduction to the logic and methods of quantitative investigation in the field of applied economics. One semester deals with the theory of corporate accountancy; the terminology, the functions, and the interpretations of financial statements including credit analysis and financial and operating ratios. The other semester will be a study and application of fundamental statistical methods which can be used in an analysis of business conditions and changes and which aid in a clearer understanding of economic data.

3. Industry and Management. Mr. Jenkins and Mr. Thom.

Full course.

This course will cover two topics; each associated with those general problems of administrative control arising in major industries, and in individual industrial enterprises. One semester will deal with the major industries; their size, location, importance, mechanical technology, and the effects of developments and changing conditions on those industries as a whole. The other semester will deal with the individual plants; being a survey of industrial organization, scientific management, physical facilities, standardization, personnel management, and administrative control of the enterprise. The formal work of both semesters will be supplemented by reference reading in the daily papers, informal discussions, and inspection trips to nearby industrial plants.

4. Advanced Accounting. Mr. Johnson.

Half course, second semester.

Prerequisite: the "accounting" semester of Course 2.

This course is intended to supplement "Methods of Economic Analysis" for those requiring a more complete course in accounting. It includes: theory of the balance sheet, the functions of the income and expense account, interpretation of financial statements, valuation, depreciation, consolidated statements, and the significance of balance sheet changes. It will include sufficient bookkeeping to illustrate the principles involved.

*May be taken for one semester only.

5. Freshman Engineering. Mr. Bourdelais, Mr. Lilly, Mr. Carpenter.

Full course.

Surveying instruments and their adjustment. Practice in taping, levelling, running traverses, taking topography, stadia work, preparation of profiles and maps from field notes. Modern shop and drawing room practice.

Elements of descriptive geometry, isometric drawing and practical problems for the development of visualization and imagination.

6. Sophomore Engineering. Mr. Bourdelais, Mr. Thom, Mr. Thatcher.

Prerequisite, Engineering 5.

Study of the physical properties, structures and methods of manufacture of the various materials used in engineering construction. Trips to nearby industrial plants. Modern shop and drawing room practice. A study of the kinematic relations of machine and engine parts.

7. Principles of Electrical Engineering. Mr. Jenkins.

Half course, second semester.

An introductory theory course for both large-power and small-power electrical engineering. It includes the study of fundamental electrical quantities and the solution of typical problems of electrodynamics and simple electrical apparatus. The engineering implications of the physical theory will be stressed.

8. Mechanics of Solid Bodies. Mr. Lilly and Mr. Carpenter.

Full course.

This course is devoted to the study of the behavior of solid bodies when acted upon by forces. The first part of the course assumes that the bodies do not change under such action; the second part treats of velocities and accelerations without considering the forces causing such effects; and the third part treats of the internal stresses and changes of form which always occur when forces act upon solid bodies. This theory is supplemented by the practical application of the principles discussed.

9. Electrical Engineering. Mr. Jenkins and Mr. McCrumm.

Full course.

A study of elementary circuits and of the laws and principles fundamental to large-power electrical machinery; direct-current and alternating-current. The laboratory work will consist of two parts: (a) laboratory testing of typical apparatus and the preparation of adequate reports, (b) a computation period to be devoted to practice in attacking problems of fundamental nature, or certain phases of the laboratory testing which, solved jointly, will remove some of the more routine labor in the preparation of the laboratory reports.

10. Mechanics of Fluids. Mr. Thatcher and Mr. Lilly.

Prerequisites, Calculus, General Physics.

Basic studies underlying fluid flow. Hydraulics: hydrostatic pressures; flow from orifices and tubes, through pipes and flumes, over weirs, in channels and rivers. Dynamic pressures; water wheels, turbines. Aerodynamics: introductory study of aerodynamic theory and experimental methods. Thermodynamics: elementary thermodynamics of steam and gas engines. Properties of the working substances.

11. Industrial Engineering. Mr. Johnson and Mr. Jenkins.

Full course.

Full course.

This course is to present a survey of the principles and methods of executive control; accounting, industrial management, and engineering economy. It is designed to associate engineering methods of thought and work with the less factual and more personal problems

64

of administrative control. To this end, the course will include a survey course in accounting and industrial management. (For the year 1935-36 a student will take one semester each of courses 2 and 3.)

12. Heat Power Engineering. Mr. Thatcher.

Half course, first semester.

Prerequisite, Engineering 10. Theoretical and practical consideration of steam plants and internal combustion engines. Laboratory work and written reports, on calibration of instruments, test of engines, boilers,

13. Thesis.

Half course, second semester.

5. Municipal engineering

6. Hydraulic motors

7. Thesis

14. Civil Engineering Option. Mr. Lilly and Mr. Carpenter.

pumps and hydraulic equipment, testing of fuels and lubricants.

Full course.

This course is designed to give the student an opportunity to apply the fundamental principles of the mechanics of solid bodies or of the mechanics of fluids to some particular field. This further training will include more fundamental theory. Especial emphasis will be placed on the methods of attacking problems in engineering rather rhan a minute application of the theory to practical problems. The subjects to be studied will be decided upon by the student and the instructor. In general the option will be in one of the following divisions; however it may include work in two closely related fields.

- 1. Structural engineering
- 2. Reinforced concrete
- 3. Highways
- 4. Railroads

15. Electrical Engineering Option. Mr. Jenkins and Mr. McCrumm.

Full course.

This option is intended for those primarily interested in some fundamental phase of electrical engineering. From the topics listed below, or by courses offered elsewhere in the college, the student will work out a logically integrated, cognate, intensive study of one or more phases of the theory of electrical engineering.

1. Principles of electrical engineering

- 2. Electric circuits-networks-transient phenomena
- Electrical energy—production, transmission, distribution
 Thermionic theory and applications
- 5. Electrical measurements
- 6. Illumination and photometry
- 7. Economic and industrial aspects of electrical engineering

It is expected that the prescribed "Thesis" will be along the same lines as this option.

16. Mechanical Engineering Option. Mr. Thom.

Full course.

Prerequisite, Engineering 6, 10.

To fit the needs of the student, studies of Machine Design, Internal Combustion Engines, Refrigeration, Heating and Air Conditioning, Fuels and Lubricants.

17. Administrative Engineering Option. Mr. Jenkins.

Full course

The object of this option is to provide a further training, of a broad nature, for those who have the qualities requisite to a successful executive in an industrial enterprise. No attempt will be made to provide specialized training; it is a supplementary study to aid those who already have the highest potential capacity for industrial leadership. Students intending to

take this option should, through their earlier college years, have chosen a carefully considered program of logically associated electives. They are strongly urged to secure summer employment as workmen in industrial enterprises and in every way secure experience that will provide a helpful background. Depending on the interests and capacity of the student, various phases of administrative control will be investigated. Some appropriate phase, or phases, of the following topics could be selected: Personnel management and problems associated with the task of building up a loyal and efficient working force; production control and shop management; industrial policies; industrial economic problems; business and financial forecasting; and engineering economy.

18. Contemporary Engineering Topics. Mr. Lilly.

First semester. One hour weekly.

Supplementary to Engineering 14, 15, 16 or 17.

This course, which is required for seniors majoring in engineering, includes the preparation of at least three carefully written papers on contemporary engineering topics. These papers are due twenty-four hours before the meeting of the group, at which time the student makes an oral presentation of his subject from notes, but he is not permitted to read his paper. This program is varied with extemporaneous speeches and with outside speakers. All engineering students are invited to attend and to participate in the discussion which follows each paper.

19. Long Survey. Mr. Lilly and Mr. Carpenter.

One week during the summer following the freshman year.

Supplementary to Engineering 5.

Prerequisite, Engineering 5.

One week of continuous work in surveying and mapping, including running of levels and of a topographical survey by the stadia method. Required of all engineering students.

20. Art Metal and Woodworking. Mr. Bourdelais.

One or two laboratory periods per week.

A course designed to give non-engineering students an opportunity to learn to work with their hands. Metal and woodworking considered as forms of art.

21. Metallography.

Half course. (Not offered 1935-36.)

Introductory course to science of metallography, stressing the ferrous metals.

COURSE IN ENGINEERING

Freshman Year-4 courses

- a. Humanities or Social Science Elective
- b. Mathematics
- c. Chemistry I
- d. Engineering 5 Long Survey (see 19 above)

Sophomore Year-41/2 courses

- a. Humanities, Social Science Elective or Mathematics and Natural Science
- b. Mathematics
- c. Physics
- d. Engineering 6
 - (First semester-Engineering Chemistry
- e. (1/2 course) {First semester-Dingineering Second semester-Principles of Electrical Engineering

Junior Year-4 courses

- a. Humanities, Social Science Elective or Mathematics and Natural Science Elective
- b. Mechanics of Solids
- c. Electrical Engineering
- d. Mechanics of Fluids

Senior Year-4 courses

- a. Humanities, Social Science Elective or Mathematics and Natural Science Elective
- b. Industrial Engineering
- c. {Heat Power—1/2 course, first semester Thesis or Elective—1/2 course, second semester

d. Senior Option: Engineering 14

Engineering 15

Engineering 16

Engineering 17

Contemporary Engineering topics (see 18 above)

The Division of Engineering includes the three Departments of Civil, Electrical, and Mechanical Engineering, and offers the degree of Bachelor of Science in Engineering.

It is imperative that each student have a well-conceived, closely knit, unified plan fitted to his capabilities and his interests. If his capacity lies in the direction of administrative, civil, electrical or mechanical engineering, his program will be pointed toward such a professional career by taking a limited number of electives in his chosen field. If, on the other hand, his abilities can be classified functionally as leading to engineering developments, or research, or management, or construction, or education, it is possible that all pertinent engineering and non-technical subjects can be fitted to his individual needs. The plan provides for liberality in courses and concentration of effort where needed, and in any case will give thorough training of a fundamental nature.

All candidates are required to pass the prescribed courses shown on page 66 and to complete 16 courses, at least two of which are in the Divisions of the Humanities and Social Sciences. The normal expectation is that the student will take four or five courses in these divisions unless he shows marked ability in mathematics and the physical sciences, in which case a limited election in the Division of Mathematics and the Natural Sciences will be encouraged.

Engineering students may elect but are not required to take courses in foreign languages.

HONORS WORK

Prerequisites. For admission to Honors work in Engineering the freshman and sophomore courses listed on page 66 are required.

Topics of Final Examinations:

- 1. Mechanics of Solids
- 2. Mechanics of Fluids
- 3. Electrical Machinery
- 4. Structural Engineering
- 5. Reinforced Concrete
- 6. Railroads and Highways
- 7. Hydraulic Engineering
- 8. Steam Power

- 9. Internal Combustion Engines
- 10. Machine Design
- 11. Electrical Circuits
- 12. Electronics
- 13. Transmission and Distribution
- 14. Thesis
- 15. Municipal Engineering
- 16. Management of an Enterprise
ENGLISH

PROFESSORS: HAROLD C. GODDARD, Chairman EVERETT L. HUNT PHILIP MARSHALL HICKS ROBERT E. SPILLER ASSISTANT PROFESSOR, TOWNSEND SCUDDER, 3RD

INSTRUCTORS: FREDRIC S. KLEES ELIZABETH COX WRIGHT

ASSISTANT, BEATRICE BEACH

GENERAL COURSES

1. Representative Writers.

Full Course, made up of two of the following: Elizabethan Literature. Mr. Klees. Half Course, each semester. The Eighteenth Century. Mr. Scudder. Half Course, each semester. The Romantic Movement. Mrs. Wright. Half Course, each semester. Victorian Literature. Mr. Hunt and Mr. Spiller. Half Course, each semester. American Literature. Mr. Hunt and Mr. Spiller. Half Course, each semester. Contemporary Literature. Mr. Hicks. Half Course, each semester.

2. Chaucer. Mr. Scudder.

3. Shakespeare. Mr. Goddard.

4. Milton and the Seventeenth Century. Mr. Hunt.

5. English Poetry. Mrs. Wright.

A study of a selected period or aspect of English poetry. In 1935-36: Nineteenth Century Poetry.

6. The English Novel. Mr. Hicks.

7. The English Drama. Mr. Klees.

8. English Prose. Mr. Klees.

9. Modern Literature. Mr. Goddard.

A study of modern comparative literature. 10. World Literature. Mr. Goddard.

11. American Literature. Mr. Spiller.

Full course.

A study of a selected period. In 1935-36: Early American literature; second semester from 1870 to the present.

Half course, first semester.

Full course.

Full course.

Full course.

Full course.

Full course.

Full course. (Omitted in 1935-36.)

Full course.

Full course.

12. Poetry. Mr. Goddard.

13. Criticism. Mr. Hunt.

14. Seminar in Drama. Mr. Hicks.

15. Mediaeval Poetry and Romance. Mrs. Wright.

Full course. (Omitted in 1935-36.)

Full course. (Omitted in 1935-36.)

16. Elizabethan Poetry and Prose. Mr. Klees.

Full course. (Omitted in 1935-36, offered in 1936-37.)

Greek Drama in English. (Greek 6) Mr. Shero.

Half course, second semester. (Omitted in 1935-36.)

A study, in translation, of the extant Greek plays and of some of the Latin adaptations from the Greek, with consideration of the influence of Greek and Latin Drama on later literature. No knowledge of Greek or Latin is required.

Dante. Mr. Brooks.

Full course.

Study of the Divine Comedy. Special attention is given to the life and art of the thirteenth century.

Writing and Speaking. Students who are reported by any member of the College faculty as deficient in written English are given tutorial guidance for the removal of the deficiency. Written work in courses and in honors seminars takes the place of advanced courses in composition. Student organizations and informal groups for practice in creative writing, acting drama, extempore speaking, and debating meet with members of the English faculty.

HONORS WORK

Prerequisites. For admission to Honors work with a major in English, the requirements are at least one-half course in the "Representative Writers" group; and Chaucer. Students are advised to take also The History of Europe or The History of England. Those who plan to include American literature in their Honors work should prepare themselves in that field.

For admission with a minor in English, the requirement is one year in English, including at least one-half course in the "Representative Writers" group.

Topics of Final Examination:

1. Shakespeare.

- 2. Poetry, Prose, the Drama, the Novel, or Spenser-Milton.
- 3. Modern Literature, American Literature, Literary Criticism, or Problems of Literary Study.

70

Half course. (Omitted in 1935-36.)

Half course, second semester.

Candidates for honors with a major in English will write one paper on the first topic and at least two papers from the second group of topics. The fourth paper may be written on any of the other topics. Candidates for honors with a minor in English may write on any two or three of the above topics upon the recommendation of their major department. Major courses in the Department are arranged to parallel honors seminars in the topics, and honors students are urged to attend the series of lectures which are given in connection with most of these courses.

REQUIREMENTS FOR MAJOR AND MINOR

Major: The work of the major in General Courses normally consists of at least four full courses: Representative Writers, Chaucer, Shakespeare, and a course in one of the types. The comprehensive examination at the close of the Senior year is based on this work, but also includes questions on Spenser-Milton, Modern Literature, American Literature, Literary Criticism, and Problems of Literary Study, for those prepared in these fields.

Minor: The work of the minor in General Courses normally consists of three full courses elected upon the recommendation of the major department, including at least one-half course in the "Representative Writers" group.

THESIS

A thesis may be substituted for the fourth paper in either the honors or comprehensive examination on application of the student and at the discretion of the Department.

DEPARTMENTAL LANGUAGE REQUIREMENTS

The language requirements may be fulfilled by French; French and German; or French or German and Latin or Greek. Students planning to continue English studies in graduate school are advised to acquire a reading knowledge of Latin, French, and German.

FINE ARTS

PROFESSOR ALFRED M. BROOKS, Chairman INSTRUCTOR, ETHEL STILZ LECTURER, JOSEPHINE ADAMS

GENERAL COURSES

r. Art Survey. Mr. Brooks.

A general course on the significance and history of art, covering architecture, sculpture, painting, and the allied arts.

2. Greek and Roman Architecture. Mr. Brooks.

Half course, first semester. Their history and development down to the fall of the Empire.

3. Mediaeval and Renaissance Architecture. Mr. Brooks. Half course, second semester.

Their history and development continuing to the present time.

4. Dante. Mr. Brooks.

Study of the Divine Comedy. Special attention is given to the life and art of the thirteenth century.

5. Interior Decoration. Miss Stilz.

Principles of color and design as applied to the planning and furnishing of houses, with lectures on the historic development of domestic architecture.

6. History of Painting. Miss Adams.

HONORS WORK

Prerequisite. Courses 2 and 3 are required.

Topics of Final Examination. Honors seminars are offered preparing students for final examinations in:

1. French Gothic Architecture. Mr. Brooks.

2. Mediaeval English Architecture from the Conqueror to the Death of Henry V. Mr. Brooks.

Full course.

Full course.

Full course.

Full course.

GERMAN LANGUAGE AND LITERATURE

PROFESSOR CLARA PRICE NEWPORT, Chairman ASSISTANT PROFESSORS: KARL REUNING LYDIA BAER W. R. GAEDE

1. Elementary German. Mr. Reuning, Miss Baer, and Mr. Gaede.

Full course.

Training in grammar, composition, conversation, and expressive reading. Ross & Aron, Ich lerne Deutsch.

2. German Prose and Poetry, Grammar and Composition. Mrs. Newport, Miss Baer and Mr. Gaede.

Full course.

Reading of recent short stories, of representative modern plays, of lyrics and ballads. and other suitable material. Review of grammar, practice in composition, conversation, and expressive reading. Cochran, Practical German Review Grammar; Schnitzler, Stories and Plays; Lessing, Minna vom Barnhelm; and other texts. Prerequisite, Course I or equivalent.

2. (b) German Prose and Poetry, Composition and Conversation. Mr. Reuning.

Half course.

The emphasis in the second semester is on vocabulary, word-building, idiomatic use of the language, and increased power of reading.

Prerequisite: Course 2a or equivalent.

3. Introduction to German Classicism, Romanticism and Realism. Miss Baer and Mr. Gaede.

Full course.

A study of the three most important movements in German literature, with reading of representative texts. The object of this course is to give an understanding of Germany's contribution to the literature and thought of the world. Prerequisite, Course 2 or equivalent.

4. The Romantic Movement in Germany. Miss Baer.

Full course.

A study of the origin, aims and development of the movement and its implications for the entire range of art and human life, with extensive reading of representative authors. Prerequisite, Course 3 or equivalent.

5. German Literature in the Eighteenth Century. Mrs. Newport.

Full course.

A study of the important movements in German literature, thought, and history during this period, with especial emphasis on the work of Lessing, Herder and Schiller. Prerequisite, Course 3 or equivalent.

6. Goethe. Mrs. Newport.

Full course. Offered 1935-36.

A careful study of Goethe's life and works. Goethe's Werke, Goldene Klassiker-Bibliothek. Prerequisite, Course 3 or equivalent.

7. German Lyric Poetry. Mr. Reuning.

Half course.

A survey of lyric poetry from the beginning with special emphasis on nineteenth century poetry.

Prerequisite, Course 3 or equivalent.

8. The German Novel and Novelle. Miss Baer.

Half course.

The characteristic German prose forms as developed in the nineteenth century by such writers as Keller, Storm, Meyer and carried on to the present day by Werfel, Thomas Mann and others.

Prerequisite, Course 3 or equivalent.

9. German Drama in the Nineteenth and Twentieth Centuries. Mrs. Newport. Full course. Offered 1936-37.

The development of the drama in Germany since the plays of Goethe and Schiller, with special attention to Kleist, Grillparzer, Hebbel, Ludwig, Anzengruber, Hauptmann, Hofmannsthal, Wedekind, Schnitzler, and the Expressionists. Campbell, German Plays of the Nineteenth Century.

Prerequisite, Course 3 or equivalent.

10. Outline Course in German Literature. Mrs. Newport.

Full course.

A survey of the literature of Germany from the earliest times, with readings from the most important authors.

Prerequisite, Course 3 or equivalent.

Conversation. One hour a week throughout the year.

(a) Advanced group: Discussion of various topics of mutual interest, mainly concerning modern Germany. Correct pronunciation, building of an active vocabulary, and idiomatic use of the language are emphasized. Mr. Reuning.

Prerequisite, Course 2.

(b) Elementary group: Practice in speaking German on a more elementary basis than (a). Open to students of the first two years of German.

The objective in Courses I and 2 is an ability to read German of moderate difficulty. To attain this end it is necessary to have a thorough knowledge of grammar and to be able to speak and write simple German. The more advanced courses are intended to add knowledge and appreciation of literature, and a command of the written and spoken idiom. The history and achievements of German civilization are also studied. Majors and Honors students are encouraged to spend some time in Germany. Practically all courses are conducted in German.

74

HONORS WORK

Prerequisites. For admission to Honors work in German, one course in college beyond Course 2 is required.

Topics of Final Examinations. Honors seminars are offered preparing students for examination papers in:

1. Middle High German Literature and Philology.

2. Eighteenth Century Classicism.

3. Romanticism 1795-1850.

4. Realism, Naturalism and the Later Schools, 1830-1930.

HISTORY AND INTERNATIONAL RELATIONS

PROFESSORS: FREDERICK J. MANNING, Chairman William Isaac Hull

Associate Professors: Mary Albertson Troyer S. Anderson

GENERAL COURSES

1. The History of Europe. Miss Albertson, Mr. Anderson and Mr. Manning. Full course.

A general survey of the origins and development of European civilization from the decline of the Roman Empire to the present day. Especially designed for Freshmen, but open to all classes. Prerequisite to other courses in European or English history, and to any Honors work in history.

2. The History of England. Miss Albertson and Mr. Anderson.

Half course, second semester.

Lectures, reading, and reports on the history of Great Britain, with the main emphasis on the period since 1450. After History 1.

3. The History of the United States. Mr. Manning.

Half course, first semester.

Lectures, reading and reports on the political, economic and social history of the American people, from the seventeenth century to the present time.

Not open to Freshmen.

4. Greek 5. The History of Greece. Mr. Shero (Department of Classics). Half course, first semester.

A study of Greek civilization in its most significant aspects to the time of the Hellenistic kingdoms, preceded by a brief survey of the Oriental civilizations by which the Greeks were influenced. Special attention given to the 6th and 5th centuries B.C.

5. Latin 9. The History of Rome. Miss Brewster (Department of Classics).

Half course, second semester.

The history of Rome from the earliest times to the accession of Marcus Aurelius. The course stresses the Roman genius for organization and administration.

6. The Italian Renaissance. Miss Albertson.

Half course.

Lectures, reading, and reports on the history of the Italian Renaissance. After History 1.

7. The History of France. Miss Albertson.

Half course.

Ecctures, reading, and reports on the history of France from Roman times to the present day. After History 1, or with the instructor's consent.

8. The Protestant Revolution. Mr. Hull.

Half course.

Lectures, prescribed readings, and special reports on the history of the Protestant Revolution in England and on the Continent.

9. The Puritan Revolution. Mr. Hull.

Half course.

Lectures, prescribed readings, and special reports on the history of England under the Stuarts (1603-1714).

10. The History of Europe in the Nineteenth Century. Mr. Anderson. Half course.

Lectures, reading, and reports on the development of Europe since the period of the French Revolution. After History 1.

11. The History of Europe since 1900. Mr. Anderson.

Half course.

Lectures, reading, and reports on the origins, history, and results of the World War. After History 1. Should be taken by students who plan to work in the Honors seminar offered on the Origins of the World War.

12. Special Topics. Mr. Manning.

Half course, especially for Seniors.

13. International Law. Mr. Hull.

Full course. (Omitted in 1935-36.)

Full course. (Omitted in 1935-36.)

This course is open to Juniors and Seniors, and is designed to present the outlines of the international law of peace, war, and neutrality. The principles of the science are illustrated by a weekly discussion of current international problems.

14. International Government. Mr. Hull.

This course is open to Seniors and Juniors. It traces the historic development of international government and illustrates its strength and weakness, its achievements and attempts, by a weekly discussion of current international problems.

15. The History of Quakerism. Mr. Hull.

By special appointment, and with seminar credits.

This work is done, not in the regular undergraduate courses (except in connection with Course 8), but in individual conference with the instructor. It includes studies in Quaker biography and literature, and in Quaker solutions of social problems.

HONORS WORK

Topics of Final Examinations. Work is offered preparing students for examination papers as follows:

Seminars open to all:

1. Mediaeval England.

- 2. Tudor and Stuart England.
- 3. The Italian Renaissance.
- 4. The Period of the Reformation in Europe.

(3 and 4 are offered in alternate years)

- 5. England in the 18th and 19th Centuries.
- 6. Europe in the 18th and 19th Centuries.
- 7. The History of the United States, mainly since the Civil War. For Juniors.

Advanced Seminars, limited in number:

- 1. The Origins of the World War.
- 2. The Supreme Court, and its Importance in recent American History. For Seniors who have had Seminar No. 7. Whenever there is room, and with the consent of the departments concerned, this seminar may be counted as a unit in Economics or Political Science for students

who have taken the course in the History of the United States or its equivalent.

3. History Thesis; the topic to be selected in Junior year if possible.

N. B.—Honors seminars in Greek and Roman history, conducted by the department of classics, are open to students majoring in history; whenever possible the history department will co-operate with students of foreign literature working on special topics in the history of their particular country.

REQUIREMENTS FOR MAJOR AND MINOR

Requirements for students who major in history do not turn on any particular total of courses, but rather upon the completion of such courses in history, together with related courses in the social sciences, literature, philosophy, the fine arts, etc., as, in the opinion of the department, will facilitate a well-rounded preparation for the Comprehensive Examinations in history. A reading knowledge of French and some acquaintance with the principles of economic theory are essential for an intelligent appreciation of history. Most graduate schools require a reading knowledge of French, German, and Latin for any graduate degree in history.

The Comprehensive Examination for major students at the end of their Senior year includes questions on the following topics: (1) European History, (2) British History, (3) The History of the United States, (4) Ancient History. Major students are expected to answer general questions in each of these fields, and more specific questions in at least two of the fields.

The survey-course in European history, the only course open to Freshmen (except by special permission from the department) is a prerequisite for any of the other courses in European or English history, and for any Honors seminars in history. Students who expect to major in history, in Honors seminars or regular courses, should take European history in the Freshman year, American and English history in the Sophomore year. Students who expect to include history as a minor subject for Honors should take European history in Freshman year, and either American or English history in Sophomore year if possible. Course 2, the History of England (or satisfactory completion of special reading and other requirements set by the department), is required for admission to any honors seminar in English history. Course 3, The History of the United States (or satisfactory completion of special reading), is required for admission to any honors seminar in American history.

MATHEMATICS AND ASTRONOMY

PROFESSORS: JOHN A. MILLER, Director of Sproul Observatory and Research Professor of Astronomy

> ARNOLD DRESDEN, Chairman* Ross W. MARRIOTT

Associate Professors: Heinrich Brinkmann Iohn H. Pitman

Assistant Professor: Michel Kovalenko

ACTING ASSISTANT PROFESSOR[†] I. J. SCHOENBERG

INSTRUCTORS: ORREN MOHLER

JOHN S. HALL

GENERAL COURSES IN MATHEMATICS

1, 2. First Year Mathematics. Mr. Brinkmann, Mr. Dresden and Mr. Marriott. Full course.

The courses are designed to deal with the material previously covered by the separate courses in College Algebra, Trigonometry and Analytical Geometry (courses 1, 3 and 4 of the 1933 catalogue), and to introduce some of the concepts of the Differential Calculus. Topics belonging to each of these subjects are introduced in natural sequence so as to form a more closely knit whole.

Classes normally meet four times a week; students are expected to keep a fifth hour free from standing engagements so that it may be used occasionally for a quiz or a special exercise.

Fine, College Algebra; Dresden, Plane Trigonometry; Fine and Thomson, Coordinate Geometry.

3. Introduction to Mathematics. Mr. Dresden.

Half course, first semester.

This course is intended for those students who expect to do only one year's work in mathematics. It aims to be an introduction to some of the important concepts of modern mathematics, to emphasize the fundamental ideas of the science rather than its technical processes, to provide a background for the study of its philosophical aspects, and to furnish a basis for an appreciation of its wider significance. A text in mimeographed form was used in 1934-35.

The class normally meets three times a week; occasionally a fourth hour will be used.

Prerequisite, a good high school course in mathematics.

5. Mathematics of Investment and Insurance. Mr. Dresden.

Half course, second semester. (Omitted in 1934-35.)

The theory of compound interest; annuities; sinking funds; interest rates; theory of Probability; mortality tables. Completion of this course, Courses Nos. 12 and 14, and an introduction to the theory of Finite Differences should enable the student to proceed with the examinations for admission to the Actuarial Society of America. Skinner, *Mathematical Theory of Investment*.

Prerequisite, a good high school course in algebra.

*Absent on leave, first semester, 1935-36.

+First semester 1935-36.

79

11, 12. Differential and Integral Calculus. Mr. Dresden and Mr. Marriott.

Full course.

These courses carry forward the work begun in courses 1, 2 and are intended to give the student a sufficient introduction to mathematics to serve as a basis for more advanced work in analysis and its applications. Classes normally meet four times a week; students are expected to keep a fifth hour free from standing engagements so as to make it available for occasional quizzes or special exercises.

Prerequisite, courses I, 2.

14. Theory of Equations. Mr. Dresden.

Half course, first semester.

Operations on Complex numbers. Solutions of cubic and quartic equations. General properties of polynomials. Separation and calculation of roots of numerical equations. Dickson, *First Course in the Theory of Equations*.

Together with Course 15 (below), this course supplies a year's work for students who pursue mathematics as a major or minor subject in course, usually to be taken in the junior year; classes normally meet three times a week.

Prerequisite, courses 1, 2, 11, 12.

15. Solid Analytical Geometry. Mr. Dresden.

Half course, second semester.

Metric theory of planes, lines and quadric surfaces in Euclidean three-dimensional space, enphasis on the use of determinants and matrices. Dresden, *Solid Analytical Geometry* and *Determinants*.

Together, with course 14 (above) this course supplies a year's work for students who pursue mathematics as a major or minor subject in course, usually to be taken in the junior year. Classes normally meet three times a week.

Prerequisite, courses 1, 2, 11, 12, 14.

16. Advanced Calculus. Mr. Brinkmann.

Half course, first semester.

Total and partial derivatives; theory of infinitesimals; definite integrals; approximations. The aim of the course is three-fold: to ground the student in the elementary work which has preceded it; to give an introduction to more advanced topics; and to develop skill in the application of the principles of the Calculus to Geometry, and Mechanics. Osgood, Advanced Calculus.

Together with course 17 (below) this course makes possible a year's work for students who pursue mathematics as a major or minor subject in course, to be taken in the junior or senior year. Classes normally meet three times a week.

Prerequisites, Courses 1, 2, 11, 12.

17. Differential Equations. Mr. Brinkmann.

Half course, second semester.

A study of ordinary and partial differential equations, with their applications to geometrical, physical, and mechanical problems. Murray, *Differential Equations*.

Together with Course 16 (above) this course makes possible a year's work for students who pursue mathematics as a major or minor subject in course, to be taken in the junior or senior year. Classes normally meet three times a week.

Prerequisite, Courses 1, 2, 11, 12, 16.

31. Undergraduate Reading Course in Mathematics.

Half course or full course.

This course is to provide an opportunity for students to do special work in fields not covered by the undergraduate courses, listed above. The work consists in the preparation of papers requiring extensive and detailed examination of the literature of a problem.

Courses of graduate character are offered from time to time, in accordance with the needs of graduate and advanced undergraduate students. Normally advanced undergraduate students will do such work in honors seminars (see below). The subjects of these courses are Projective Geometry, Theory of numbers, Theory of functions of a real variable, Theory of functions of a complex variable.

GENERAL COURSES IN ASTRONOMY

1, 2. Descriptive Astronomy. Mr. Pitman.

Full course.

A study of the fundamental facts and laws of Astronomy, and of the methods and instruments of modern astronomical research. The course is designed to give information rather than to train scientists. A study of the text-book will be supplemented by lectures illustrated by lantern slides from photographs made at various observatories. The class will learn the more conspicuous constellations and have an opportunity to see the various types of celestial objects through the telescope. Some lectures will be held in the Planetarium. The treatment is non-mathematical. Baker, *Astronomy*.

Classes normally meet three times a week.

3. Practical Astronomy. Mr. Hall.

Half course, second semester.

Theory and use of the transit instruments; determination of time; the latitude of Swarthmore; determination of longitude. Intended for students of Astronomy and Engineering and those desiring to take the civil service examinations for positions in the United States Coast and Geodetic Survey.

Classes normally meet three times each week.

Prerequisites, Mathematics 1, 2 and Astronomy 1, 2.

4. Survey of Astronomy.

Half course, second semester.

This course is intended primarily for students of Engineering and Science. Emphasis will be placed on methods of scientific investigation. Students will have the opportunity of using various instruments. Some lectures will be held in the Planetarium.

Classes normally meet three times each week.

5. Astronomy of Navigation. Mr. Hall.

This course is designed to give students an opportunity to solve the more important astronomical problems confronting the sailor, aviator or explorer.

The use of the sextant, compass, charts and chronometer. Dead reckoning, pilotage and nautical astronomy. Sumner line of position. Use of Bowditch and Dreisonstok's Tables in conjunction with the nautical almanac.

31. Undergraduate Reading Course in Astronomy.

Half course or full course.

Undergraduate students may, under direction, prepare papers upon subjects requiring a rather extensive examination of the literature of a problem. Courses 32 and 51 to 55 are half courses, offered from time to time to meet the needs of graduate students and of advanced undergraduates.

32. Spherical Astronomy. Mr. Pitman.

51. Orbit Computation. Mr. Pitman.

- 52. Method of Least Squares. Mr. Pitman.
- 53. Theory and Practice of Interpolation. Mr. Pitman.
- 54. Stellar Parallax. Mr. Pitman.

55. Celestial Mechanics. Mr. Pitman.

HONORS SEMINARS IN MATHEMATICS

I. Theory of Equations. This seminar is devoted to the study of algebraic equations. The topics covered are the following: Properties of polynomials, solution of cubic and quartic equations, numerical solution of equations, Sturm's theorem and related theorems, symmetric functions, resultants, application to geometrical problems.

II. Solid Analytic Geometry. In this seminar the analytic geometry of 3dimensional space is studied, along with the algebraic tools that are necessary for that purpose. The subjects taken up are: Determinants, matrices, systems of linear equations, lines and planes, transformation of coördinates, quadric surfaces, identification of the general equation of the second degree, special properties of quadric surfaces, such as rulings and circular sections, system of quadric surfaces.

III. Advanced Calculus. This seminar deals with the differential calculus for functions of several variables and its geometric applications, with double and triple integrals, improper integrals, line and surface integrals, the elements of vector analysis.

IV. Differential Equations. In this seminar the principal topics are the following: ordinary differential equations of the first order, linear differential equations, with particular attention to special cases of the equation of second order; some aspects of the theory of partial differential equations, of Fourier series, of the calculus of variations and of functions of a complex variable.

V. Theory of Functions of a Complex Variable. A fairly detailed study of the linear fractional transformation in the complex plane. Derivatives and integrals of analytic functions. Expansion in series. Contour integrals.

VI. Foundations of Mathematics. Postulational treatment of mathematics. The problem of consistency. Relation of logic and mathematics. Some of the systematic treatments of the foundation of logic. Modern developments.

HONORS SEMINARS IN ASTRONOMY

Seminars in the following topics will be arranged for those desiring to take one or more papers in Astronomy.

Spherical Astronomy: A mathematical discussion of the reduction of visual and photographic observations of position; solution of visual and spectroscopic binary orbits.

Prerequisites, Astronomy 1, 2; Mathematics 12, 13.

82

Theory and Practice of Stellar Parallax: The theory of trigonometric parallax. Measurement and reduction of parallax plates. Discussion of errors. Theory of spectroscopic and dynamical parallaxes.

Prerequisites, Astronomy 1, 2; Mathematics 12, 13.

Theory of Orbits and computation of orbit of an asteriod or comet. Celestial Mechanics.

Prerequisites, Astronomy 1, 2; Mathematics, 12, 13.

REQUIREMENTS FOR MAJOR AND MINOR

For students who intend to major in mathematics in course the normal sequence of courses is the following: Freshman year, courses 1, 2; Sophomore year, courses 11, 12; Junior year, courses 14, 15; Senior year, courses 16, 17. Those who intend to pursue astronomy as a major subject in course should have in addition courses 1, 2 in that subject during the Freshman or Sophomore year; advanced courses selected from the list given above combined with work in mathematics constitute the further requirement.

For students who select mathematics or astronomy as their minor, the minimum of three courses should be selected from the following: Mathematics 1, 2; 11, 12; 14, 15; 16, 17; Astronomy 1, 2, 3. Completion of course 12 is the minimum requirement.

Prerequisites for admission to honors seminars in mathematics either as a major or as a minor are the completion of courses 1, 2; 11, 12; the completion of the course in General Physics; a reading knowledge of French and German. For honors work in Astronomy, completion of courses 1, 2 in that subject is necessary in addition to the requirements indicated above.

LIBRARIES AND OBSERVATORY

The astronomical part of the departmental library is located on the first floor of the Observatory; the mathematical section on the fifth floor of Parrish Hall. The Library contains complete sets of nearly all the American mathematical and astronomical periodicals, and sets (some of which are complete, some of which are not) of the leading English, German and French periodicals. This library receives the publications of many of the leading observatories in exchange for the publication of the Sproul Observatory.

The equipment of the observatory is best suited for astrometric and kindred problems. The various eclipse expeditions from the Observatory have yielded considerable eclipse data.

The observatory staff is at present devoting time to studies in stellar parallax with the 24-inch telescope, to photography with the 9-inch doublet, and to the study of the eclipses of the sun. Students interested in any of these problems may work with advantage in conjunction with one of the professors. Results of departmental studies are published in the Sproul Observatory publications and in various scientific journals.

The Observatory is open to visitors on the second and fourth Tuesday nights of each month, except those Tuesday nights that fall in a vacation period. Visitors thus have an opportunity of seeing, in the course of a year, many celestial objects of various types.

MUSIC

ASSISTANT PROFESSOR *ALFRED J. SWANN, Chairman

1. Introduction to Music. Mr. Swann.

Half course. (Omitted in 1935-36.)

The object of this course is to help the average music lover and concert goer acquire a better understanding of the music heard. It deals with the rudiments of music—scales, keys, modulation, rhythm, time, etc., with the analysis of simple folk songs and the smaller musical forms. It leads eventually to some acquaintance with the classic sonata and symphony, and to a brief discussion of the modern orchestra. The lives and works of certain composers of the 18th and 19th centuries are studied from first-hand documents, such as letters, auto-biographies, and the testimony of contemporaries.

2. History of Music. Mr. Swann.

Half course. (Omitted in 1935-36.)

This course deals chiefly with the pre-classic period. Starting with the mediaeval music (plain chant, troubadours) it lays especial emphasis on the vocal polyphonic period (Palestrina) and the age of Bach and Haendel, with a detailed study of the B-minor mass and the "Messiah." Discussions of various ideals of beauty (Gothic, Renaissance, Baroque) also form part of this course.

No previous acquaintance with music is required for Music 1, but the latter course or its equivalent is highly recommended to those enrolling in Music 2.

For information about the Swarthmore College Chorus and Orchestra see p. 90 in the Students' Handbook of Swarthmore College.

*Absent on leave, 1935-36.

PHILOSOPHY AND RELIGION

PROFESSORS: BRAND BLANSHARD, Chairman JESSE H. HOLMES (part-time) ASSISTANT PROFESSOR: JOHN W. NASON INSTRUCTOR: MAURICE H. MANDELBAUM

GENERAL COURSES

1. Logic. Mr. Blanshard.

A study of the forms of reasoning, inductive and deductive. Special attention is given to the application of logical rules in the analysis of arguments and the detection of fallacies.

2. Introduction to Philosophy. Mr. Holmes, Mr. Blanshard, Mr. Nason.

Half course, both semesters.

Half course, first semester.

A survey of the principal problems of philosophy and the alternative answers to them. Drake's *Invitation to Philosophy* is used this year as a basis.

4. Ethics. Mr. Blanshard, Mr. Holmes, Mr. Mandelbaum.

Half course, both semesters.

An introduction to ethical theory, with a brief consideration of the various types of ethics and of the application of ethical principles in practice.

4a. Social Ethics. Mr. Holmes, Mr. Nason.

Half course, second semester.

An application of ethical principles to some selected major problems of the day; e.g. the race problem, the distribution of wealth, nationalism and peace, freedom of the press, problems of the family.

5. Philosophy and Science. Mr. Holmes.

Half course, first semester.

The first half of the semester is devoted to a review of the history of science. The second half to an examination of the logic of science and some of its more important concepts, such as evolution and relativity.

6 (a). Greek and Mediaeval Philosophy. Mr. Mandelbaum.

Half course, first semester.

The pre-Socratics, Plato, Aristotle, Stoics and Epicureans, Neoplatonists and sceptics, early Christianity and the scholastics. Readings in the sources where practicable.

6 (b). History of Modern Philosophy. Mr. Mandelbaum.

Half course, second semester.

A review of the principal systems of thought from Descartes to the present time. The greater philosophers are studied through selections from their works; these readings are coördinated through a standard history of philosophy.

7. Aesthetics. Mr. Mandelbaum.

Half course, first semester.

A historical and critical study of the theory of beauty and of standards of literary and artistic criticism. Recommended for students majoring in literature or the fine arts.

8. Contemporary Problems. Mr. Holmes.

Half course, second semester. (Omitted in 1935-36.)

A study of selected major issues, such as the controversy between realism, idealism and pragmatism, the relation of philosophy to the natural sciences and to religion, etc., the problems being chosen partly with reference to the interests of the group.

12. Introduction to Religion. Messrs. Blanshard, Holmes, Hull, MacLeod, Malin, Nason, and Speight.

Half course, first semester.

Open to all students. A study of the forms of religious experience, of the chief philosophical ideas implied in religion, of the bearing of religion on social change, of the Quaker interpretation of religion, and of the way religion has been embodied in certain outstanding personalities.

HONORS WORK

Prerequisites: For admission to honors study in philosophy, the requirement is at least two semester courses in the field.

Honors Subjects in Philosophy:

- 1. MORAL PHILOSOPHY: A seminar in ethics, systematic and historical. Rashdall's *Theory of Good and Evil* (2 vols.) is covered in detail. A printed syllabus (75 pp.), containing lists of readings in the sources, references in recent literature, topics for papers, and questions for self-examination, has been prepared for this seminar.
- 2. GREEK PHILOSOPHY: Begins with the dawn of western philosophy in the Milesian nature-philosophers, ends with a brief study of the Stoics and Epicureans. The larger part of the time is devoted to a reading of Plato and Aristotle. Included in this reading are all the major dialogues of Plato and selections from the Ethics, the Metaphysics, and the logical writings of Aristotle. Recommended for students of literature.
- 3. HISTORY OF MODERN PHILOSOPHY: The development of modern thought from Bacon and Descartes to Kant. If the group so desires, it may, with the approval of the instructor, exchange a study of certain of the pre-Kantian philosophers for a study of more recent philosophical movements. This seminar may appropriately be combined with work in any of the three divisions.
- 4. CLASSIC PROBLEMS OF PHILOSOPHY: The first half of the study is devoted to the theory of knowledge; Montague's *Ways of Knowing* is used as a common basis and is supplemented by readings in contemporary philosophy. In the second half of the semester, selected problems in metaphysics are taken for discussion, including usually the mind-body problem, the issue between the mechanist and the vitalist, the nature of the self, the problem of freedom, and the relation between philosophy and religion.
- 5. LOGIC AND SCIENTIFIC METHOD: The subject is pursued from the point of view, and from the level of difficulty, presented by Joseph's *Introduction* to Logic. Students are expected to master the manipulations of the traditional formal logic and to supplement Joseph's discussion of theory by readings in Mill, Bradley, Jevons and other logicians.

- 6. AESTHETICS: A study, partly historical, partly systematic, of the philosophies of beauty, including theories of tragedy and comedy, of the sublime, and of standards of criticism. Readings in the sources, ancient and modern; occasional visits to the art collections of Philadelphia. Recommended for students of literature.
- 7. SOCIAL ETHICS: Prerequisite, a course or a seminar in ethics. A study of some of the pressing problems of the present time in the light of ethical theory: political conservatism *vs.* liberalism; changing relations between races, sexes, and nations; the issues presented by pacifism, socialism, censorship, moral scepticism. Recommended for students in the social sciences.

Philosophy is a subject that has proved particularly well adapted to study by the honors method, and advanced work in it is done chiefly through honors seminars.

PHYSICAL EDUCATION FOR MEN

Assistant Professor Robert Dunn, Acting Chairman INSTRUCTORS: GEORGE R. PEANN

AVERY F. BLAKE

Assistants: Charles P. Larkin E. J. Faulkner		VINCENT B. SCHNEIDER Albert M. Barron
	HENRY L. PARRISH	WILLIS J. STETSON
COLLEGE PH	VSICIAN FOR MEN. DR	. FRANKLIN GILLESPIE

Physical Education for Men. Mr. Dunn, Mr. Blake.

This course is required of all first- and second-year men and of all upper-class men who have not completed the requirement.

The minimum requirement is one hour of activity on each of two days each week.

It is the aim of the department to offer every student an opportunity to participate in a variety of activities as regularly as his interest and time will permit; to broaden his social contacts with other students and receive the valuable benefits of sports; to develop carry-over activities that he will continue to enjoy after he leaves college.

A wide range of sports is listed and it is hoped that no student will take so little interest in his physical development as merely to fulfil the minimum requirement.

Students may elect from the following:

FALL ACTIVITIES

Opening of College to Thanksgiving Recess

5. Football. Mr. Pfann, Mr. Parrish, Mr. Schneider.

11. Soccer. Mr. Dunn, Mr. Stetson.

(In these sports there will be a varsity, second varsity, freshmen and beginners group.)

17. Tennis. Mr. Blake.

Fall tournament and informal play.

6. Golf.

Informal.

13. Speedball. Mr. Blake.

23. Cross-Country.

One hour each week is required of all students registering in the informal activities No. 17 and No. 6.

WINTER ACTIVITIES

Thanksgiving Recess to Spring Recess

2. Basketball. Varsity, Mr. Larkin; Junior Varsity and Freshmen, Mr. Stetson; Beginners, Mr. Dunn; Fraternity, Mr. Blake.

6. Golf. Mr. Dunn. Beginners. Instruction on appointment.

8. Handball. Informal.

10. Lacrosse. Mr. Blake. Beginners and Informal.

11. Soccer. Mr. Dunn. Advanced, Beginners and Informal.

14. Ice skating. Informal. On permission from the director when conditions are safe.

16. Swimming. Mr. Parrish. Varsity, Fraternity and Informal.

17. Tennis. Mr. Blake. Beginners. Instruction on appointment.

18. Touch football. Informal.

20. Boxing. Mr. Dunn. Beginners.

21. Wrestling.

Hygiene. Dr. Gillespie. Required of all Freshmen.

SPRING ACTIVITIES

Spring Recess to Commencement

1. Baseball. Mr. Dunn, Mr. Stetson. Varsity, Junior Varsity, Freshmen and Fraternity.

6. Golf.

Varsity and Informal.

10. Lacrosse. Mr. Blake. Varsity, Junior Varsity and Beginners.

17. Tennis. Mr. Faulkner.

Varsity, Junior Varsity, Fraternity and Informal.

19. Track. Mr. Barron.

Varsity and Beginners.

Special Class: A student who is unable to follow the regular program in physical education because of a physical handicap will be assigned special activities to meet his needs.

Equipment: It is requested that every student entering college have a complete sweat suit, a pair of shorts, a sleeveless jersey (gray) of washable material, a pair of basketball shoes and a pair of leather shoes, either soccer or football.

90

PHYSICAL EDUCATION FOR WOMEN

Assistant Professor Virginia Rath, Acting Chairman Instructors: Virginia Brown Greer May E. Parry

COLLEGE PHYSICIAN FOR WOMEN, DR. DOROTHY ASHTON

REQUIREMENTS FOR WOMEN

Three hours of Physical Education each week are required of all resident and non-resident women throughout their college course. Every student is given a physical and medical examination at the opening of each college year and is advised at that time by the college physician which activities she may enter.

Each student is allowed five (5) absences from class during the fall season, ten (10) during the winter season and five (5) during the spring season. These cover absences for every reason except those incurred while the student is in the infirmary or ill at home. Each unexcused absence in excess of the numbers mentioned above shall be penalized by one extra class hour for one season.

The program is divided into three terms: fall, opening of college to Thanksgiving recess; winter, Thanksgiving recess to spring recess; spring recess to June.

First-year students are required to attend a course of orientation lectures, given once a week during the first semester.

Regulation costumes should be ordered before college opens. Blanks for this purpose will be sent out from the Deans' office to all incoming students.

COURSES FOR WOMEN

1. Hockey. Miss Rath, Miss Brown, Miss Parry.

Two periods per week. Fall term. Required of first- and second-year students and elective for third- and fourth-year students. Varsity hockey is required of squad members instead of class hockey.

2. Archery. Miss Rath, Miss Brown.

Two periods per week. Fall and Spring. Open to third- and fourth-year students in the fall. Open to all students in the Spring.

3. Horseback Riding. Mr. Bowen.

Two periods per week. Fall, Winter and Spring. Open to all students.

4. Swimming. Miss Rath, Miss Brown, Miss Parry.

One period per week Fall and Spring or one period per week Winter

or two periods per week Fall or Spring.

Required of all students with the following exceptions: Seniors who pass a standard

swimming test are excused. Sophomores or Juniors who pass all requirements on the swimming chart are excused.

Beginning, Intermediate, and Advanced classes in strokes, diving, and Red Cross Life Saving.

Third- and fourth-year students have the option of substituting a free swimming period for class instruction. This privilege may be withheld at the discretion of the Department.

Varsity swimming, two periods per week Winter term, is required of all squad members.

5. Danish Gymnastics. Miss Brown.

Open to all students.

6. Tumbling. Miss Rath.

Open to all students.

7. Natural Dancing. Miss Brown.

(a) Intermediate and Advanced. Two periods per week.

(b) Beginners. One period per week.

8. Basketball. Miss Brown, Miss Parry, Miss Rath.

(a) Open to all students.

(b) Varsity basketball is required of all squad members. Two periods per week.

9. Tap Dancing. Miss Rath, Miss Brown.

Open to all students.

(a) Intermediate and Advanced. Two periods per week.

(b) Beginners. One period per week.

10. Volley Ball. Miss Parry.

Open to third- and fourth-year students.

11. Individual Gymnastics. Miss Rath.

Two periods per week. Winter term. For those students who need special exercise because of incorrect posture or minor orthopedic defects.

12. Body Mechanics. Miss Rath, Miss Brown.

One period per week. Winter term.

One period per week. Winter term.

Required of all first-year students.

13. Moderate Sports. Miss Brown.

One period per week. Fall, Winter, Spring. Clock golf, tenequoit, badminton, horse shoe pitching, archery may be substituted for other work upon advice of the physician.

Winter term.

Two periods per week. Winter term.

Two periods per week. Winter term.

Winter term.

Winter term.

14. Tennis. Miss Parry, Miss Brown, Miss Rath.

Two periods per week. Fall and Spring. Open to third- and fourth-year students in the Fall. Open to all students in the Spring. Varsity tennis is required of all squad members in the Spring.

15. Lacrosse. Miss Parry.

Two periods per week. Fall, Winter, Spring. Open to third- and fourth-year students in the Fall. Open to all students in the Winter and Spring.

16. Golf. Miss Michael.

Open to experienced players only, in the Fall. Open to all students in the Spring. Two periods per week. Fall and Spring.

PHYSICS

PROFESSOR WINTHROP R. WRIGHT Associate Professor Milan W. Garrett

GENERAL COURSES

1. General Physics. Mr. Wright and Mr. Garrett.

Three lectures and one laboratory period weekly together with such conferences as prove desirable. This course is a prerequisite for all other work in physics whether in course or in honors. It is also required for students majoring in engineering and for students expecting to study medicine.

2. Advanced General Physics. Mr. Garrett.

Half course, first semester.

Three conferences and one laboratory period weekly. The material for this course is drawn from the fields of mechanics, hydrodynamics, the kinetic theory, thermodynamics, and modern physics. It is recommended for physics majors and should also meet the needs of students in course who are majoring in the engineering and the science divisions.

3. Modern Physics. Mr. Wright.

Second semester.

Full course.

These lectures in the field of modern physics present in an elementary fashion the progress in physics during the past quarter century with some indication of directions in which active growth is now going on. They center around the nature of matter, electricity, and radiation and include such experimental subjects as positive and negative ions, X-rays, radioactivity, spectra, and the photo-electric effect. They carry no credit and their primary aim is to stimulate curiosity and to provide some familiarity with authors who set forth these matters in their fullness. An elementary knowledge of general physics is presumed.

HONORS WORK

I. Physical Optics. Mr. Wright.

Based on Robertson's Introduction to Physical Optics. The laboratory work includes the measurement of thin and thick lenses, the intercomparison of wave lengths by prism, grating, and interference spectrographs both visually and photographically, the computation of series constants, and the measurement of various interference and diffraction patterns.

II. Electricity and Magnetism. Mr. Garrett.

Based principally on Page and Adams' *Principles of Electricity*. It covers electrostatics, magnetism, electro-magnetic phenomena, electronics and some applications. It is accompanied by laboratory measurements involving direct, alternating, and electronic currents, static charges and permanent magnets.

III. Atomic Physics. Mr. Wright and Mr. Garrett.

Readings in the fields of gaseous conduction, photoelectricity, thermionic emission, X-rays, radioactivity and atomic structure with accompanying quantitative experiments.

IV. General Physics. Mr. Wright.

This seminar is given for majors in the biological sciences. It emphasizes the fields of dynamics of solids and liquids, the kinetic theory, electricity and modern physics. The readings are supplemented by experiments.

MAJOR AND MINOR REQUIREMENTS

Students majoring in physics will ordinarily be expected to read for honors but in special cases the degree may be taken in course. In either event the following courses are to be completed by the end of the second year: two courses in mathematics, one in chemistry, one in physics, and the second course in German. The half course in advanced general physics is recommended.

One full course in physics and two in mathematics are prerequisite to honors work in physics when taken as a minor. The mathematics requirements may be somewhat reduced for students who carry only the seminar in general physics.

POLITICAL SCIENCE

PROFESSOR ROBERT C. BROOKS, Chairman Assistant Professor J. Roland Pennock Assistant, Mary H. Fairbanks

GENERAL COURSES

1. Introduction to Political Science. Mr. Brooks and Miss Fairbanks.

Full course.

Nature, content, and applications of political science, its relation to other social sciences, illustrated by an outline study of the framework of government and the organization, methods, and aims of leading political parties in England, France, Switzerland, Germany, Italy, and Russia. Comparisons between the political institutions of the countries named above and those of the United States.

Open to all students.

2a. American Political Parties and Issues. Mr. Brooks.

Half course, first semester. Party activities, present-day issues, the legal status of parties in the United States, detailed study of the presidential campaigns of 1928 and 1932.

Open to all students except Freshmen.

2b. Public Opinion. Mr. Brooks.

Half course, second semester.

Public opinion, propaganda, pressure groups, particularly in the United States. Open to all students except Freshmen.

3. American Federal Government. Mr. Pennock.

Half course, first semester. A study of the present structure, functions, and operation of American Government, with special emphasis upon the National Government, and upon recent developments in the field. Open to all students except Freshmen.

4. Municipal Government in the United States. Mr. Brooks and Miss Fairbanks. Half course, first semester.

A detailed study of municipal organization and functions in the United States, particular attention being given to the cities of New York, Philadelphia, Chicago, and Cincinnati. Reform proposals—the commission plan, the city manager plan, short ballot, proportional representation, bureaus of municipal research.

Prerequisite, Course 1.

5. State Government in the United States. Miss Fairbanks.

Half course, second semester.

A detailed study of practical problems and proposed solutions in the field of comparative state government. Special emphasis on Pennsylvania, New York, Illinois, Wisconsin, and California. Recent trends in administration—correction, charity, education, health, highways, natural resources.

Prerequisite, Course 1.

6. Statesmen of Our Time. Mr. Speight.

Half course, first semester.

A study of the personal development, motives, and careers of several leaders, such as Lenin, Mussolini, Ramsay MacDonald, Ghandi, Theodore Roosevelt, and Woodrow Wilson, who, in their several countries, have notably influenced national and international life. Open to all students except Freshmen.

7. Political Problems of Today. Mr. Pennock.

Half course, second semester.

Reconsideration of the bases of representative government in the light of changed economic and social conditions in the modern State; examination of such alternative principles as those offered by Communism, Fascism, and Guild Socialism; investigation of the possibilities of developing modified forms of representative government to fit the new situation, and an appraisal of present tendencies in political development.

Prerequisite, Course 1 or Course 3.

10

8. Special Readings in Political Science. Miss Fairbanks.

Half course, second semester.

Intensive readings on special phases of politics—types of governments, executives, legislatures, judiciaries, administrative systems, and the like, with a view to throwing into high relief the most controversial questions in each field. Preparation for the final comprehensive examinations. Open only to Seniors with the major in Political Science.

9. American Constitutional Law. Mr. Pennock.

Full course.

The Constitution as developed by the Court; and the Court as seen through the cases. Stressing (a) the development of national power, (b) constitutional limitations upon state legislation, (c) constitutional restrictions upon administrative government, (d) the Supreme Court and the economic emergency.

Prerequisite, Course 1 or Course 3.

10. Political Theory. Mr. Brooks.

Half course, first semester.

An advanced course dealing with the principal classics of political theory with the purpose of ascertaining what light they throw upon the conflicts being waged in and between modern states.

Prerequisite, Course 1. Not offered in 1935-36.

Students with a major in political science should select as much collateral work as possible in economics; also in modern history and philosophy.

HONORS WORK

Prerequisites: The course prerequisite for Honors work in Political Science is Introduction to Political Science. Students may substitute for this the two courses in American Federal Government and Ameri-

can Political Parties and Issues. Instead of American Federal Government the course in American Constitutional Law may be offered.

Topics of Final Examinations: Honors seminars are offered preparing students for examination papers as follows:

- 1. Political Theory.
- 2. Political Institutions of the United States.
- 3. Contemporary Democracies and Dictatorships.
- 4. International Law and Organization.
- 5. Thesis.

PSYCHOLOGY AND EDUCATION

Assistant Professor Robert B. MacLeod, Chairman Visiting Professor of Psychology, Wolfgang Köhler Instructor, Edwin B. Newman Lecturer, Edith M. Everett Lecturers in Education: James Mulhern W. Thomas Woody

ASSISTANT, RANDOLPH S. DRIVER

1. Introduction to Psychology. Mr. MacLeod.

A study of the structure and organization of the mental life of the normal, human, adult individual. Not open to Freshmen.

2. Experimental Psychology. Mr. Newman.

A laboratory course on problems in human psychology.

Prerequisite, Course I. Prospective honors students may take it during the second semester of the sophomore year.

3. Genetic Psychology. Mr. Newman.

Full course.

Full course.

A comparative study of certain features of infra-human behavior; the development of psychological processes in infants and children; problems of learning and intelligence. Emphasis throughout will be laid on the general problem of growth and development.

Prerequisite, Course 1. Either semester may with the consent of the instructor be taken as a half course.

4. Social Psychology. Mr. MacLeod.

Half course, first semester.

Half course, each semester.

A psychological study of relationships between individual and individual and between group and individual. Prerequisite, Course 1.

5. Modern Psychology in Historical Perspective. Mr. MacLeod.

Half course, second semester.

A survey of current problems and points of view with special reference to their historical derivation.

Prerequisite, Course 1.

7. Mental Hygiene.

(Omitted in 1935-36.)

An attempt to present the best existing knowledge concerning the achievement and maintenance of mental health. Special emphasis is laid upon the evolution of personality from infancy to adult life.

8. Educational Psychology.

(Omitted in 1935-36.)

9. Philosophy of Education. Mr. Woody.

An inductive determination of those fundamental principles of education in a democratic society which proceed from our knowledge of the nature of man, the nature of society, and the fundamental social theories of the state; the study of the bearing of these principles on the most important problems of the present day.

10. Historical Introduction to Education. Mr. Mulhern.

A survey of the evolution of educational institutions from primitive to modern times, emphasizing the interdependence of educational institutions and economic, social, religious and political institutions at various stages of civilization.

Either semester may be taken as a half course.

II (a and b). Childhood and Adolescence. Miss Everett.

Full course.

The seminar meets one afternoon a week, and is devoted to a study of the formation and modification of patterns of relationship within the family, the neighborhood and the school. Biography as well as psychological theory is used as source material. The practicum consists of one day a week of social case work under the supervision of counselors of the White-Williams Foundation of Philadelphia. The first semester, part a, dealing primarily with childhood, may be taken as a half-course. Either part a or Child Psychology is prerequisite for part b.

Prerequisite, Course 1.

MAJOR AND MINOR REQUIREMENTS

Students intending to elect psychology as major subject are advised to take a course in philosophy and a course in biological or physical science, preferably during the Freshman year, and to acquire a reading knowledge of German. Major students are expected to take Introduction to Psychology, Experimental Psychology, Genetic Psychology, and at least three further half courses in psychology. Except in special cases courses in education may not be substituted for courses in psychology. Minor students are expected to take Introduction to Psychology and the equivalent of two further full courses in psychology.

Education alone may not be elected as a major or minor subject, and not more than two full courses in education will be accepted for credit toward the bachelor's degree. The Pennsylvania requirements for the certification of secondary school teachers include 21 hours of psychology and education. With the exception of 6 hours of practice teaching, which must be taken elsewhere, Swarthmore students may fulfil these requirements by taking Introduction to Psychology, Educational Psychology and Introduction to Education, together with three further half courses in the department chosen from the following: Mental Hygiene, Genetic Psychology, Childhood and Adolescence, and Principles of Education.

100

Full course.

Half course.

HONORS WORK

Prerequisites: Introduction to Psychology is the normal prerequisite for all honors work. This may be waived, however, in cases of candidates who have done advanced work in zoölogy and physiology, and who propose to concentrate in the field of physiological psychology. All major students are advised to take introductory work in zoölogy or physics and in philosophy, and to acquire a reading knowledge of German.

Topics for Final Examinations: Honors seminars are offered in the following subjects:

I. Systematic Psychology.

An historical and critical study of the principal contemporary schools of psychology.

2. Perception.

Survey of the fundamental problems connected with the apprehension of objects, events and relationships; space, time and movement; the special senses; the interrelation of the senses; psychophysics; the psychological bases of music, painting and the plastic arts. Discussion supplemented by laboratory work.

3. The Individual in Society.

A psychological study of the relationships between the individual and the group, based on material drawn from studies of primitive man and of contemporary social life. Special attention is paid to the role of society in moulding the individual, and to such concrete problems as those of criminality, neurosis and insanity.

4. Genetic Psychology.

The development of fundamental psychological activities in the animal world and in the individual. The problems of growth, learning and intelligence will be stressed.

5. Psychophysiology.

Selected problems concerned with the functioning of sense-organ, nerve, muscle and gland. Designed^oprimarily for pre-medical students and students who are majoring in physiology.

ROMANCE LANGUAGES

PROFESSORS: EDITH PHILIPS NORMAN L. TORREY ASSISTANT PROFESSORS: LÉON WENCELIUS MARCEL BRUN INSTRUCTOR: MERCEDES C. IRIBAS PART-TIME INSTRUCTORS: MARGUERITE WENCELIUS

SYLVIA FOREST

FRENCH

1. Elementary French. Miss Philips.

Full course.

For students who begin French in college. Equivalent of two years' secondary school preparation.

2a. Reading, Grammar and Composition. Members of the department.

Half course, each semester.

Prerequisite, French 1 or two years' secondary school preparation and a placement test.

2b. Reading, Grammar and Composition. Continued. Members of the depart-

Half course, each semester. Prerequisite, French 2a or three years' secondary school preparation and a placement test.

3a. Introduction to French Prose. Members of the department.

Half course, each semester. Prerequisite, French 2b or four years' secondary school preparation and a placement test.

Representative texts of modern French prose writers. Conducted in French with frequent written reports in French.

3b. Introduction to French Drama. Members of the department.

Half course, each semester.

Prerequisite, French 3a. Representative texts from the French theater from the classical period through the nineteenth century.

4. La littérature du dix-neuvième siècle. Miss Philips.

Full course, may be divided.

Prerequisite, French 3.

5. Le Roman Français avant 1800. Mr. Torrey.

Full course, may be divided.

6. La Pensée Française au dix-huitième siècle. Mr. Torrey. Full course, may be divided. (Not given 1935-36.)

7. Formation du Classicisme français; de la Pléiade à Racine. Mr. Brun. Full course, may be divided.

Formation du Classicisme français; les prosateurs. De Calvin à Fenelon. Mr. Wencelius.

Full course, may be divided.

SPANISH

1. Elementary Spanish. Miss Iribas.

A course aimed to give a knowledge of the essentials of Spanish grammar, the ability to read ordinary Spanish with ease, and some practice in conversation. Tests: (a) Hills and Ford, Spanish Grammar for College; (b) Castills, Lecturas Introductorias; (c) Tales of Spanish America.

2. Second-year Spanish. Miss Iribas.

Reading, grammar and composition; reading of six modern novels and plays and conversation based on texts.

3. Introduction to Spanish Literature. Miss Iribas.

Collateral reading and reports in Spanish.

ITALIAN

1. Elementary Italian. Madame Forest.

Aimed to give the student ability to read ordinary Italian and to write and speak simple Italian.

2. Italian reading and composition. Madame Forest.

Full course.

Full course.

All students offering French or Spanish for entrance take a placement test. The results of this test, taken into consideration with the number of years of preparation, determine the student's assignment to Course 2 or Course 3.

HONORS WORK

French may be offered as a major or minor subject in the division of the humanities. Prerequisites for majors: French 3, Latin 1, or equivalent, History of Europe or History of France, History of Philosophy or Introduction to Philosophy.

Seminars are offered as follows:

- 1. La Renaissance en France. M. Wencelius. Rabelais, Montaigne, Ronsard.
- 2. Le Classicisme français. M. Brun. Special attention is given to the theater as the purest manifestation of the classical ideal.

Full course.

Full course.

Full course.

- 3. La Pensée française au dix-huitième siècle. Mr. Torrey. Montesquieu, Voltaire, Rousseau and the Encyclopedists.
- 4. La Poésie lyrique au dix-neuvième siècle. Miss Philips. The romantic parnassian and symbolist movements. Modern tendencies.
- 5. Le Roman français depuis Flaubert. Miss Philips. Realism, naturalism, modern tendencies.
- 6. Histoire des idées politiques du 19e siècle. M. Wencelius.

Lamennais, de Maistre, Saint-Simon, Auguste Comte and others, studied in their relation to literature and to the development of French ideas.

8. Le Critique littéraire au 19e siècle. M. Brun. Sainte-Beuve, Taine, Renan, Brunetière.

104
COURSES OF INSTRUCTION

ZOÖLOGY

Assistant Professors: Walter J. Scott, Chairman Robert K. Enders

INSTRUCTORS: FRANK R. KILLE RUTH MCCLUNG JONES

GENERAL COURSES

1. General Zoölogy. The staff.

Full course.

Lectures, demonstrations, conferences and laboratory exercises covering the major aspects of Zoölogy. Biological principles as illustrated by invertebrate animals are stressed during the first semester. A study of vertebrate morphology and physiology with special consideration of the general topics of embryology, evolution, genetics and ecology forms the basis of the work of the second semester.

There will be a division of the class at the beginning of the second semester into professional and non-professional groups. If the occasion warrants this division will be made during the first semester.

2. Comparative Vertebrate Anatomy. Mr. Enders.

Half course, first semester.

A course of lectures, laboratory conferences and dissection presented from the comparative viewpoint. Dissection of several vertebrate types including the monkey is undertaken. Prerequisite, I.

3. Elementary Physiology. Mr. Scott.

Half course, second semester.

A consideration of the physiology of muscle, nerve, circulation, respiration, central nervous system, special senses, and digestion; the treatment is designed to give a broad understanding of the mechanism of the vertebrate body. In the laboratory standard experiments on living tissue are performed.

4. Embryology. Mr. Enders.

Half course, first semester in alternate years.

The purpose of this course is to acquaint the student with the morphological details of the developmental processes in vertebrates. Experimental evidence is introduced in the lectures and conferences.

5. Invertebrate Zoölogy. Mr. Kille.

Half course, offered in alternate years.

A study of the structure, development, and physiology of representative invertebrates. Prerequisite, 1.

6. Histology. Mrs. Jones.

Half course, offered in alternate years. This course combines histology and histological technique. Most of the tissues studied are prepared by the student. Prerequisite, I.

7. Mammalian Physiology. Mr. Scott.

Half course, offered in alternate years.

A laboratory course of experiments illustrating the more important features of the circulatory, respiratory and nervous systems. Prerequisites, 1, 2, 3, 4.

8. Experimental Zoölogy. Mr. Enders.

Half course, offered in alternate years.

An introduction to the methods used in simple experimental procedure with lectures, conferences, comprehensive reading in some one field supplemented by intensive laboratory work. Prerequisites, 1, 2, 3, 4, 6.

9. History of Zoölogy. The Staff.

One hour (voluntary), offered in alternate years. General discussions tracing the evolution of Zoölogy. Attention is paid to the philosophical aspects of the science and its influence on the development of civilization. Open to majors only.

10. Special Problems. The Staff.

For advanced students. Open only to those who have secured the consent of the department.

HONORS WORK

TOPICS FOR FINAL EXAMINATIONS

The work is so arranged that the field of Zoölogy is treated as a unified whole rather than as a group of more or less related subjects. Thus the nervous system is studied for a period of some months from the standpoint of its embryology, histology, comparative anatomy and physiology, as well as its relation to animal behavior and evolutionary concepts. A similar procedure is followed for the other systems that make up living organisms. The honors seminars are in this way designed to train the student for competent scholarship in the field of biological and medical science.

Topics of Final Examinations:

- 1. Cytology and Genetics.
- 2. Skeletal Systems, Muscle and the Nervous System.
- 3. Cardio-Vascular Systems and Respiration.
- 4. Metabolism and Reproduction.
- 5. Embryology.
- 6. History of Biological Science.

Distribution of Work: Eight papers.

Not more than four papers in Physiology-Zoölogy. Four papers from the following: Organic Chemistry

Scientific Method and Logic Physical Chemistry Physics Botany Psychology

REQUIREMENTS FOR MAJOR AND MINOR

Students majoring in Zoölogy may take a degree either in general courses or with Honors. In either case there must be completed during

COURSES OF INSTRUCTION

the first two years the following: One course in chemistry, one course in mathematics, one and a half courses in Zoölogy, and two courses in German (or their equivalent). An additional course in chemistry together with a course in physics provides a more satisfactory preparation.

Pre-medical students must complete two courses in chemistry, one course in mathematics, one course in physics, and one course in zoölogy.

In addition to these courses major students are required to complete two and one half courses from the following electives during the junior and senior years: Embryology, Invertebrate Zoölogy, Histology, Genetics, Experimental Zoölogy, Advanced Physiology. Under certain conditions a special course in Psychology or one in advanced Botany will be acceptable.

Students who are reading for Honors take four seminars in the department during the last two years.

For admission to minor Honors work in Zoölogy one full course is a prerequisite.

The attention of students preparing for the medical profession is directed to the necessity of fulfilling the admission requirements of the medical school they plan to attend.

STUDENTS, 1935-36

UNDERGRADUATE STUDENTS

Major Subject

Psychology,

Psychology,

Name

Ackerman, Ruth Harriet, '39 Alben, Jane Shirley, '37 Albertson, John Augustus, '36 Albertson, Raymond Cadwallader, '39 Alexander, Josephine Louise, '39 Alleman, Virginia Stuart, '36

ALLEN, ELEANOR, '36 ALLICK, MARTHA JANE, '36 ANDERSON, JAMES LEWIS, '38 ANFINSEN, CHRISTIAN B., JR., '37 Ash, ALFRED FRANK, '38 Ashelman, Samuel FREAS, JR., '37 *Economics*,

BAER, JOHN ELSON, '38

BAKER, MARGARET E., '39 BALL, ROLAND CONKLE, '39 BALLARD, JOHN SCOTT, '37 BARBER, MARGARET HARRIET, '36 BARCLAY, WALTER S., '38 BARNES, CLIO MAE, '39 BARSALOW, FAITH HAMBLY, '38 BAYS, CATHARINE HARRIET, '36 BAYS, MARJORIE, '39 BEAN, BARTON, III, '39 BEARDSLEY, JAMES HODGE, '38 BECK, JOHN NEWLIN, '36 BELKNAP, MARY ELLEN, '39 BELL, CHARLES ROBERT, '39 BELL, ROBERT LYON, '36

Benditt, Earl Philip, '37 Benkert, Isabel Rest, '37 Bernstein, Herbert Irving, '36 Best, Marion, '37 Bigelow, John Lowrie, '39 Bigelow, Richard Lynn, '36 Bill, Margaret Anne, '38 Bittle, Harriet Elizabeth, '38 Bittle, June Honsberger, '39 Blackburn, Barbara Jean, '36 Blackman, James Horton, '39 Blai, Isidor, '38 Bloch, Alan Edward, '37 English, Psychology, Mech. Engin., French, English, Chemistry, Mathematics,

Chemistry,

English, Engineering, Fine Arts, Pol. Science, Physics, Psychology, History,

English, Engineering,

Engineering,

Zoölogy, Mathematics, Chemistry, French, Pol. Science, Pol. Science, English, Pol. Science,

English, Pol. Science, Psychology, Physics, 404 Yale Ave., Morton, Pa. 332 Carnegie Place, Pittsburgh, Pa. Hitchcock Lane, Westbury, N.Y.

Address

Hitchcock Lane, Westbury, N.Y. 1834 Kenyon St., N.W., Washington, D.C. Sylvan Hills, Hollidaysburg, Pa. 3345 Woodland Ave., Philadelphia, Pa. 239 Lonsdale Ave., Dayton, Ohio. 56 Sunset Road, Newark, Del. 354 Clearbrook Ave., Lansdowne, Pa. 1910 University Ave., New York, N.Y. 130 Pike Street, Port Carbon, Pa.

3902 Spuyten Duyvil Parkway, New York, N.Y. 319 S. 44th St., Philadelphia, Pa. 105 S. 15th St., Richmond, Ind. Route 4, Rockville, Ind. Barwood, Niles, Mich. 205 Lippincott Ave., Riverton, N.J. 31 Maynard Road, Northampton, Mass. 166 Whitmarsh Ave., Worcester, Mass. 2330 Ewing Ave., Evanston, Ill. 2330 Ewing Ave., Evanston, Ill. 240 S. Cayuga St., Williamsville, N.Y. 11 Brooklands, Bronxville, N.Y. 2 Chestnut Ave., Narberth, Pa. 503 E. 2nd St., Port Clinton, Ohio. 419 Yale Ave., Swarthmore, Pa. 3049 Warrington Road, Shaker Heights, Ohio. 247 S. 63rd St., Philadelphia, Pa. 658 Ferne Ave., Drexel Hill, Pa. 4529 N. 12th St., Philadelphia, Pa. 115 Brightwood Ave., Westfield, N.J. 179 N. Laurel St., Hazleton, Pa. 179 N. Laurel St., Hazleton, Pa. 32 Occom Ridge, Hanover, N.H. Sellersville, Pa. Cressona, Pa. Everett, Pa. 1121 McCausland St., St. Louis, Mo. 4th & High Aves., Melrose Park, Pa. Springhill Farm, Hillsdale, N.Y.

108

Economics, Hi Hi English, 182

STUDENTS

BLOOD, GERTRUDE RENWICK, '39 BLUMENTHAL, FRANK HOWARD, '36 BOND, VIRGINIA BEW, '38 BOOTH, MIRIAM RAVI, '38 BORBAS, LASZLO, '36 Bose, LEWIS CROWDER, '39 Boss, EVA ELIZABETH, '39 BOWER, HELEN ELIZABETH, '36 Bowers, MARY CATHERINE, '39 BOYER, LENORE ELIZABETH, '36 BOYER, VINCENT SAULL, '39 BRADBURY, WILLIAM CHAPMAN, JR., '36 BRADEN, GEORGE DORSEY, '38 BREARLEY. EMILY CAROLINE, '38 BRECKENRIDGE, JOHN HOLT, '38 BREDIN, JEAN ELIZABETH, '36 BROOKE, ELIZABETH ANNE, '37 BROOKS, BARBARA BICKFORD, '37 BROOKS. MARGARET BOLLES, '37 BROOMALL, THOMAS HAMILTON, '37 BROOMELL, G. LUPTON, JR., '37 BROSIUS, ELIZABETH S., '38 BROWN, DAVID, '38 BROWN, JOHN HUNN, '38 BROWN, JOHN ROBERT, '39 BRUNHOUSE, RICHARD STEWART, '38

BUCHANAN, PAUL HYDE, '39 BUCKINGHAM, JAMES ELLIS, '37 BUDD, ISAAC WALTER, '39 BUDDINGTON, AUGUSTUS FRANK, '38 BURGER, VIRGINIA, '39 BURT, C. OLIVER, '37

CADWALLADER, THOMAS SIDNEY, '36 CALDWELL, CHARLES ADAMS, '38 CALDWELL, WESLEY HUNT, JR., '38 CAMPBELL, WILLIAM CURTISS, '37 CANTINE, HOLLEY RUDD, JR., '38 CARLSON, ARTHUR GUNNAR,'39 CARLSON, JOHN ROBERT, '38 CARRIGAN, ALICE EUGENIA, '38 CARROLL, WILLIAM ROBERT, '38 CARSON, GEORGE CHIDESTER, '38 CARSWELL, JEAN ALISON, '37 CARTWRIGHT, DORWIN, '37 CARUTHERS, EDWARD GRAHAM, '39 CHALMERS, KEITH WALDON, '37 CHAMBERS, ALFRED H., JR., '36 CHANEY, DAVID WEBB, '37

Pol. Science. English. History. English. Pol. Science. Psychology. English. Engineering. Economics. Pol. Science, Psychology, Chemistry, English. History. English. Pol. Science. Pol. Science. Elect. Engin., English. Chemistry. Engineering, Economics. History. Economics. Economics,

Engineering,

History, English, History, Economics, Psychology,

Chemistry, Economics,

Psychology, Philosophy, Economics, English, Zoölogy, 25 Metcalf St., Worcester, Mass.
21 E. 52nd St., New York, N.Y.
103 S. Avolyn Ave., Ventnor, N.J.
Old Bennington, Vt.
Magyaradi ut. 50, Budapest 11, Hungary.
2625 N. New Jersey St., Indianapolis, Ind.
R. F. D. 4, Trenton, N.J.
1216 Ashland Ave., Wilmette, Ill.
16708 Kenyon Rd., Shaker Heights, Ohio.
267 W. Court St., Doylestown, Pa.
6320 Lawnton Ave., Philadelphia, Pa.
21 Lookout Rd., Mountain Lakes, N.J.
(P. D. A. New York, N.J. Walk, N.J.

16 Park Ave., New York, N.Y. 57 Princeton Ave., Princeton, N.J. 137-7th Ave. N., Twin Falls, Idaho. New Hope, Pa. 233 Essex Ave., Narberth, Pa. 45 Orchard Rd., Akron, Ohio. 14 Dewey Ave., New Rochelle, N.Y. 100 Movlan Ave., Movlan, Pa. 429 W. Stafford St., Philadelphia, Pa. 61 Baldwick Road, Pittsburgh, Pa. 40 Fifth Ave., New York, N.Y. Wyoming, Del. 1107 E. Darby Rd., Brookline, Pa. 11 Mill Road, Brookline, Pa. 5001 N. Meridian St., Indianapolis, Ind. 252 E. Philadelphia St., York, Pa. 1407 Baird Ave., Camden, N.J. 6054 N. Bay Ridge Ave., Milwaukee, Wis. 2971 Brighton Road, Shaker Heights, Ohio. 402 E. 20th St., Chester, Pa.

Fairfield Terrace, Yardley, Pa. 909 Westdale Ave., Swarthmore, Pa. 7412 Crittenden St., Philadelphia, Pa. 236 Haverford Ave., Swarthmore, Pa. Woodstock, N.Y. 4914 Kingsessing Ave., Philadelphia, Pa. 114-80 179th St., St. Albans, N.Y. 808 W. Broad St., Quakertown, Pa. 701 Delaware Ave., Urbana, Ill. Swarthmore Apts., Swarthmore, Pa. 107 Bryn Mawr Ave., Lansdowne, Pa. 3104 Rose Terrace, Chattanooga, Tenn. Secane, Pa. 2536 Third Ave., N., St. Petersburg, Fla. 130 W. Spring St., Reading, Pa. S. Chester Rd., Swarthmore, Pa.

- English. CHAPMAN, BARBARA ANNE, '38 CHASE, MARGARET, '39 CHEESEMAN, MARGARET RUTH, '39 CHILD, JOHN SOWDEN, '37 Economics, CHUTE, WILLIAM STAAKE, '39 Physics, CLARK, ARNOLD FRANKLIN, '37 CLARK, FREDERICK EUGENE, '39 Economics. CLARKE, JAMES HULME, '37 CLARKE, MARGARET ANDREWS, '37 Pol. Science, CLEMENT, T. MALCOLM, '37 Engineering. English, CLOUGH, JANE CARSON, '36 Chemistry, CLOUKEY, KENNETH CARROLL, '38 English, COFFIN, ELIZABETH GLEN, '36 COFFIN, LOUIS FUSSELL, JR., '39 Engineering. Engineering, COLKET, CARL C., '38 COLLIER, GRETCHEN KOCH, '39 COLLINS, WHITNEY, '39 Engineering, COLMAN, RUTH-ELIZABETH SAGER,'38 Pol. Science, CONOVER, JOHN HOAGLAND, '38 Psychology, COOK, CATHERINE, '38 COOK, FERN MARJORIE, '39 COOK, THEODORE FAILOR, '39 COOPER, ANNE, '38 English, Engineering, COOPER, BEN, '37 COOPER, GEORGE BRINTON, '38 CORLISS, MYRTLE ELIZABETH, '37 Psychology. COTSWORTH, MARGUERITE CLAIRE, '37 English, CRAIG, LAWRENCE CAREY, '39 Philosophy, CRANE, CHARLES EDWARD, JR., '36 Chemistry, CREIGHTON, ROBERT H. J., '39 CRESSON, SAMUEL LUKENS, '39 CROLL, PHILIP DENGLER, '36 English. CROWL, PHILIP AXTELL, '36 History. CUPITT, MARGARET E., '37 English, DANA, HARRIET MERRILL, '38 DAVENPORT, MARGARET VIRGINIA, '38 History, DAVIDSON, DEWITT SANGER, '39 DAVIS, EURETTA, '36 French, DAVIS, HELEN CARA, '38 English. English, DAVIS, JANE VIRTUE, '38 English, DAVIS, JEAN KNOX, '39 DEAN, CHARLOTTE, '39 English,

DEARDORFF, SARAH JANE, '38 DEKNATEL, MARGARET ELIZABETH, '38 DENNIS, BETTY FOREE, '37 DERING, FRANCES TURNER, '37 DIEBOLD, WILLIAM, JR., '37 DIMPFL, RICHARD ALBERT, '29

Pol. Science, Pol. Science,

Zoölogy,

English,

Mahwah, N.J. 85 Brookside Road, New Britain, Conn. 225 N. McKean St., Butler, Pa. 3126 Midvale Ave., Philadelphia, Pa. 409 Cheltena Ave., Jenkintown, Pa. 2136 VanHise Ave., Madison, Wis. 1602 Ashland Ave., Evanston, Ill. 15 Meadow Ave., Bronxville, N.Y. 858 Myrtle Ave., Albany, N.Y. Lincoln University, Pa. 95 W. Broadway, Salem, N.J. 313 N. Maple Ave., Lansdowne, Pa. 820 C St., Sparrows Point, Md. 820 C St., Sparrows Point, Md. 44 Monroe Place, Brooklyn, N.Y. 121 Beckwith Terrace, Rochester, N.Y. 7 Leighton Ave., Yonkers, N.Y. 615 Cleveland Ave., Racine, Wis. 179 Fern Ave., Collingswood, N.J. 8231 Woodbine Ave., Cincinnati, Ohio. Youngwood, Pa. Swarthmore, Pa. 19 Benedict Ave., Langley Field, Va. Marlton, N.J. 4657 Tampa St., Philadelphia, Pa. 9 Post Crossing, Southampton, N.Y. 422 N. Scoville Ave., Oak Park, Ill. 106 Morningside Drive, New York, N.Y. 35 Hubbard Ave., Montpelier, Vt. 515 Elm Ave., Swarthmore, Pa. 527 Riverview Rd., Swarthmore, Pa. 264 Mather Rd., Jenkintown, Pa. 802 Far Hills Ave., Dayton, Ohio. 205 Sylvania Pl., Westfield, N.J.

2031 Hill Street, Ann Arbor, Mich. 131 E. DuBois Ave., DuBois, Pa. 308 E. 79th St., New York, N.Y. 5614 Northumberland St., Pittsburgh, Pa. 564 Wahnetah Drive, Bound Brook, N.J. 3830 Waldo Ave., New York, N.Y. 2215 Delamere Drive, Cleveland, Ohio. 236-30 Warwick Ave., Douglaston, N.Y. 743 S. George St., York, Pa.

234 Summit Ave., Mt. Vernon, N.Y. 2101 Dorothy Ave., Louisville, Ky. 28 Rockridge Rd., Mt. Vernon, N.Y. 62 Columbia Terrace, Weehawken, N.J. 138 Penhurst St., Rochester, N.Y.

IIO

STUDENTS

DOBBINS, EDWARD L., '39 DOBSON, ELIZABETH LOUISE, '37 DODD, SARAH MELOVIDOFF, '36 DODGE, EMILY POMEROY, '36 DORISS, WILLIAM HOWARD, '39 DOUGLASS, ANN ELIZABETH, '39 DUDLEY, MARTHA ALLEN, '38 DUMM, MARY ELIZABETH, '38 DUMTON, JOHN COATSWORTH, '39

EAMES. CHARLES FRANCIS. '38 ECKES, MURIEL CONSTANCE, '37 ECKMAN, CHARLES MURRAY, '38 ECKMAN, GRACE AMALIE, '37 EDMUNDS, CHARLES WALLIS, JR., '39 EDWARDS, J. EARLE, '36 EISENMENGER. HERTHA EMMA. '38 ELLIOTT, THOMAS HENRY, '38 ELLIS, MARION, '37 EMMEL, ELIZABETH WARE, '36 ENTENBERG, BARBARA JEAN, '39 EPLEY, ANNE HAMMOND, '38 EPPINGER, DORIS ELEANOR, '38 EPSTEIN, SAMUEL ATKINS, '39 ERVIEN. C. RICHMOND. '36 EVES, ELEANOR EDITH, '37 EVANS, JEAN ANNE, '38

FAIR, ESTHER, '36 FALCONER, ROBERT MCLAIN, '36 FARRADAY, CLAYTON L., JR., '36 FAUST, OLVA FULLER, '37 FEELY, MIRIAM RUTH, '38 FEROSON, ELEANOR HEWITT, '38 FINLEY, JAMES A., '36 FISHER, RALPH HART, '39 FLORA, JOHN WESLEY, '38

Fornwalt, George Robert, '39 Forsythe, George Elmer, '37 Foulds, Juliet Knight, '38 Foulds, William Lambert, '36 Fowler, Ward S., '37 Frazer, Evan Wayne, '38 Fuges, Jane, '36 Funke, Ellen Clare, '39 Funkhouser, Elisabeth Mary, '38

GAEDE, ELSA, '38 GARDNER, JAMES JOSEPH, '38 French, Zoölogy, French, Economics, French, Zoölogy, Zoölogy, Engineering,

English, Pol. Science, German, Pol. Science,

Pol. Science, Zoölogy, Zoölogy, French, Psychology,

French, English,

Mech. Engin., Zoölogy, English.

English, Engineering, Zoölogy, Psychology, French, Psychology, Engineering, Pol. Science, Psychology,

Zoölogy, Mathematics, Fine Arts, Elect. Engin., Zoölogy,

English,

Zoölogy,

Economics.

104 Garrison Ave., Battle Creek, Mich.
1 Canterbury Lane, St. Davids, Pa.
185-82nd St., Brooklyn, N.Y.
115 N. Allen St., Madison, Wis.
Anderson Rd., Milbrook, Greenwich, Conn.
144 Hempstead St., New London, Conn.
15 Middle Rd., Hamden, Conn.
13 Sampson Ave., Madison, N.J.
2242 Pioneer Rd., Evanston, Ill.

443 W. Broad St., Tamagua, Pa. 31 Gifford Ave., Jersey City, N.I. 10 Greenway Terrace, Forest Hills, N.Y. 10 Greenway Terrace, Forest Hills, N.Y. 1619 Cambridge Rd., Ann Arbor, Mich. 8990-215 St., Queens Village, N.Y. III S. oth Ave., Mt. Vernon, N.Y. 915-37th Ave., Seattle, Wash. 419 Valley Rd., Llanerch, Pa. 55 Pondfield Pky., Mt. Vernon, N.Y. 370 Central Park, W., New York, N.Y. 2529 Atkinson Ave., Detroit, Mich. 225 Main St., Tottenville, N.Y. 62 Ellington St., Springfield, Mass. 1664 Harrison St., Philadelphia, Pa. 218 E. Market St., Danville, Pa. 101 Lansdowne Court, Lansdowne, Pa.

535 Acklin Ave., Toledo, Ohio. 2737 Endicott Rd., Cleveland, Ohio. 4811 Regent St., Philadelphia, Pa. 817 Madison Ave., Albany, N.Y. 734 Crescent Pky., Westfield, N.J. o Deering St., Portland, Me. 1000 Ohio Ave., Midland, Pa. 424 N. Monroe St., Media, Pa. 39 Grandview Ave., Pleasantville, N.Y. 6616 Piney Branch Rd., N.W., Washington. D.C. 112 Walsh Road, Lansdowne, Pa. 1819 Hill St., Ann Arbor, Mich. 225 Virginia Ave., Phoenixville, Pa. 225 Virginia Ave., Phoenixville, Pa. Eldora, Iowa. 7102 Hilltop Road, Bywood, Pa. 1210 Harrison St., Philadelphia, Pa. 515 N. Easton Road, Glenside, Pa. 33 Perdicaris Place, Trenton, N.J. 423 Harvard Ave., Swarthmore, Pa.

21 Columbus Ave., New Rochelle, N.Y.

GARDNER, JAMES RICHARD, '37 Pol. Science, 2601 Lawina Road, Baltimore, Md. GARRISON, WALTER SHERMAN, JR., Zoölogy, Cedarville, N.J. '36 GATES, ONNOLEE LOUISE, '36 English, Coudersport, Pa. 994 Eastern Ave., Schenectady, N.Y. GBURSKI, LEONARD JOHN, '37 Engineering, GEDDES, FRANK BRAMWELL, JR., Sp'l 21 Greenacres Ave., Scarsdale, N.Y. GEE, MILDRED, '39 Economics, 146 Maple St., Brooklyn, N.Y. GERMANN, MARGARET LOUISE, '37 167 Rutland Road, Brooklyn, N.Y. French, GIBSON, KATHERINE JEANNE, '39 3700 Massachusetts Ave., Washington, D.C. GILL, LYLE BENNETT, '37 Pol. Science, 635 N. I St., Fremont, Neb. 405 Washington Ave., Bethlehem, Pa. GINGRICH, JANET MILDRED, '39 Economics, GLADDING, ALBERT HAZEN, '38 English, Breezy Green Road, Leicester, Mass. GODDARD, WESLEY RAWDON, '37 English, Los Gatos, Calif. GOLDSMITH, DAVID ADOLPH, '38 Zoölogy, 1706 E. 56th St., Chicago, Ill. 7701 Cresheim Road, Philadelphia, Pa. GOODRICH, ELIZABETH W., '39 GOODRICH, MARY ROGERS, '39 French, 38 Clarendon St., Malden, Mass. 338-8th Ave., LaGrange, Ill. GOODWIN, MARY LILLIAN, '39 746 Lindale Ave., Drexel Hill, Pa. GORDON, KERMIT, '38 Economics. GOSHORN, ROBERT M., '39 King Road, Malvern, Pa. GREENAWALT, RACHEL H., '38 Pol. Science, 519 Colonial Ave., York, Pa. Economics, 6501 N. 8th St., Philadelphia, Pa. GREENFIELD, ROBERT K., '36 1219 N. 8th St., Philadelphia, Pa. GREENSPAN, GEORGE, '38 Zoölogy, GRIFFEN, CHARLES ROLAND, '36 Pol. Science, 175 Woodruff Ave., Brooklyn, N.Y. 380 Briarwood Place, Ravinia, Ill. GRINNELL, MOLLY K., '39 418 Central Park, W., New York, N.Y. GRUENBERG, ERNEST MATSNER, '37 5750 Virginian Road, Philadelphia, Pa. GUTCHESS, FRANKLIN JOSEPH, '36 Economics, 454 Lexington Ave., Youngstown, Ohio. HAFKENSCHIEL, JOSEPH H., '37 Zoölogy, HAGEDORN, ELISE C., '38 English, 7945 Montgomery Ave., Elkins Park, Pa. English, Snell Place, Fort Dodge, Iowa. HAIRE, MASON, '37 HALLOWELL, ALBAN THOMAS, '37 Chemistry, Sandy Spring, Md. Psychology, Punkasteest Road, Tiverton, R.I. HAMILTON, JANE, '38 HAMILTON, SIDNEY B., '36 History, 115 Rock Creek Church Rd., Washington, D.C. HANDLER, JEAN HARRIET, '39 History, 11 Warren Place, Montclair, N.J. HARDIN-BOYD, PATRICIA, '39 Chemistry, 304 42nd St., Des Moines, Iowa. HARMAN, DAVID, '39 338 White Horse Pike, Oaklyn, N.J. HARPER, JAMES ALAN, '37 Engineering, Kingsville, Md. HARRINGTON, BRISBANE BOYD, JR., '38 209 S. Front St., Harrisburg, Pa. HARRINGTON, ELIZABETH ANNE, '39 2 Highland St., DuBois, Pa. HARRIS, RAYMOND RICHARDS, '39 Chemistry, 360 Tenth St., Salem, Ohio. HARRISON, WILLIAM THAYER, '38 Engineering, 124 Bellevue Ave., Upper Montclair, N.J. HART, BEATRICE LAURA, '39 Zoölogy, 72 Sherman St., Hartford, Conn. HART, JANET OLINE, '37 History, 72 Sherman St., Hartford, Conn. HARTUNIAN, VARTAN, '38 English, 4801 Ventnor Ave., Ventnor, N.J. 349 North Steele Rd., W. Hartford, Conn. HARVEY, JEAN, '36 English, HASTINGS, MARY JANE, '39 English, 700 North Front St., Milton, Pa. HAY, ELIZABETH SCHWENK, '38 1734 Mahantongo St., Pottsville, Pa. HAYNIE, GEORGIA ELAINE, '38 2817 Guilford Ave., Baltimore, Md.

STUDENTS

HEAVENRICH, RICHARD, '37 HEALD, MARY KATHERINE, '38 HEG, E. BIDDLE, '36 HEINEMAN, ROBERT BLOCH, '38 HEISLER, MARGARET JANE, '38 HELBING, ALMA BIELE, '37 HELLMAN, CLARE, '38 HENDERSON, RUTH, '36 HENDLEY, CHARLES DANIEL, '38 HENDRICKS, OLIVE GRAHAM, '39 HENSZEY, ELIZABETH ROBERTS, '38 HERNDON, DALE LINTON, '39 HERRICK, MARY ELLEN, '38 HICKOK, JOHN EVERETT, '37 HILL, JANET STANTON, '39 HITCHCOCK, CATHARINE M., '38 HOADLEY, HENRY HAROLD, '37 HOAGLAND, MARY ADELINE, '39 HOFFMAN, RUSSELL MURRAY, JR., '38 Economics, HOGELAND, CAROLYN MEREDITH, '38 HOLDERLE, FREDERICK STILKE, '39 HOPKINS, MARTHA TYSON CHILTON, '39 HORNBECK, HELEN FRANCES, '37 HOUSEL, LOUISE PAULINE, '37 Latin, HOWELL, WILLIAM JASPER, '38 HOYT, DOROTHY, '36 HULST, GEORGE D., JR., '37 HUMPHREY, RICHARD A., '36 HUNTER, MARGARET ELEANOR, '38 HUNTINGTON, MARGARET ORR, '36 HUTSON, FRANK ALFRED, JR., '37 English, ILLMER, ALEXANDRA, '39 IRVINE, NATHALIE LETITIA, '38 JACKSON, ELIZABETH WILSON, '37 JACKSON, CAROLINE ELIZABETH, '39 JACOBS, MARGARET, '38 JAMES, MARY ISABEL, '39 English. JANES, ROBERT LEE, '39 Physics, JENTER, CARL M. W., '37 JESSUP, PAUL SHELLEY, '39 JOHNSON, ELEANOR DAVIS, '39 JOHNSON, JOY DILLISTIN, '38 JOHNSON, PRISCILLA ANN, '36 English, JOHNSON, WINIFRED ETHEL, '36 English, JONES, WILLIAM ALDEN, '36 English, JONES, CHARLOTTE ANITA, '36 JONES, EDMUND, '39

110 Longfellow Ave., Detroit, Mich. Mathematics. Pol. Science, 100 Gladstone Rd., Pittsburgh, Pa. English, Walker Lane, Wallingford, Pa. 5552 Everett Ave., Chicago, Ill. English. 410 Midway, Riverton, N.I. Zoölogy. 509 S. 6th Ave., Mt. Vernon, N.Y. Psychology, 431 Kensington Court, Louisville, Ky. English, 39 Mayhew Drive, South Orange, N.I. Zoölogy, 3210 Fairfield Ave., New York, N.Y. Engineering, 265 Wyoming Ave., Maplewood, N.I. Pol. Science. Woodland Lane, Oconomowoc, Wis. Chemistry, 2 College Lane, Haverford, Pa. 807 Keystone Ave., River Forest, Ill. Engineering, 35 Hillcrest Ave., New Rochelle, N.Y. Madero 25, Mexico, D.F. Psychology, 411 W. 116th St., New York, N.Y. Engineering, 518 Walnut Lane, Swarthmore, Pa. 733 B 4000 Cathedral Ave., Washington, D.C. Plush Mill Road, Media, Pa. 4945 Catherine St., Philadelphia, Pa. 269 Sherwood Ave., Rochester, N.Y. Maidens Choice Lane, Catonsville, Md. Pol. Science 8 College Grove, Kalamazoo, Mich. 343 Washington Terrace, Audubon, N.I. Chemistry, 2041 Talbot St., Toledo, Ohio. Zoölogy, 174 Merriman Road, Akron, Ohio. Mathematics, 3 Macopin Ave., Upper Montclair, N.J. Philosophy, 638 S. 57th St., Philadelphia, Pa. 6923 Sherman St., Philadelphia, Pa. Zoöloav. 329 Belt Ave., St. Louis, Mo. 114 Park Ave., Bronxville, N.Y. 24 N. Church St., Cortland, N.Y. English, 41-07 157th St., Flushing, N.Y. Pol. Science, 317 N. Chester Road, Swarthmore, Pa. 310 W. Lafayette St., West Chester, Pa. Economics, 147 Grand Ave., Baldwin, N.Y. 417 Washington Ave., Bethlehem, Pa. Seminole, Okla. Economics, 517 Pelhamdale Ave., Pelham Manor, N.Y. 322 Liberty St., Penn Yan, N.Y. 107-80 Street, Brooklyn, N.Y. 840 DeGraw Ave., Newark, N.J. Redstone Lane, Washington, Pa. 7 Abernethy Drive, Trenton, N.J. Chemistry, 608 N. Chester Road, Swarthmore, Pa. 720 W. North Ave., Baltimore, Md.

227 Haverford Ave., Swarthmore, Pa.

608 N. Chester Road, Swarthmore, Pa. Chemistry, JONES, HELEN PALMER, '39 IONES, WELLINGTON DOWNING, JR., 5603 Kenwood Ave., Chicago, Ill. Pol. Science, 39 30 E. Wheelock St., Hanover, N.H. JOYCE, ELEANOR WOODBRIDGE, '38 English, 1562-38th St., Kensington, N.Y. Chemistry, KALKSTEIN, SAMUEL ISAAC, '37 38 Second Ave., Royersford, Pa. KALTENBACH, ETHEL LOUISE, '39 1150 Fifth Ave., New York, N.Y. KASPAR, PETER DALZELL, '38 333 Mosholu Parkway, New York, N.Y. Engineering, KELLER, GEOFFREY, '38 333 Mosholu Parkway, New York, N.Y. English, KELLER, JOAN MILES, '36 8212 Cedar Rd., Elkins Park, Pa. Psychology, KELLEY, JOAN CATHARINE, '37 2400 Tilden St., N.W., Washington, D.C. Psychology, KERR, PETER, '38 91 Durand Road, Maplewood, N.J. History, KEYES, CAROLYN, '36 Beach Drive, Noroton, Conn. KING, MARGARET HAZEN, '39 KIRCHSCHLAGER, HELLMUTH LUDWIG, 2801 Ailsa Ave., Baltimore, Md. '38 912 Childs Ave., Drexel Hill, Pa. KIRK, ELLA LOUISE, '36 English, 320 E. Main St., Lancaster, Ohio. Economics, KIRN, JOHN JUSTICE, '37 Lapidea Manor, Chester, Pa. KLAER, JANE SPROUL, '38 Zoölogy, 149 Greenridge Ave., White Plains, N.Y. Economics. KLABER, ROBERT, '37 15 S. LaClede Place, Atlantic City, N.J. English, KLINE, NATHAN S., '38 308 Marvin Road, Elkins Park, Pa. History, KOCH, GRACE MARY, '38 410 Collings Ave., Collingswood, N.J. KOENEMANN, RICHARD, '37 Zoölogy, 1516 N. 15th St., Philadelphia, Pa. Psychology, KOHN, ELISE F., '36 KRATTENMAKER, HERMAN CHARLES, 419 Haddon Ave., Collingswood, N.J. '39 281 St. Ann's Ave., Kew Gardens, N.Y. Chemistry, KRIDER, ELIZABETH ANN, '36 Moylan, Pa. German, KRUTZKE, FRANK AUGUST, '36 405 N. E. 39th St., Miami, Fla. Engineering, KURTZ, HENRY E. B., '38 47 Hawthorne Ave., Princeton, N.J. LADENBERG, EVA MARVIL, '39 Penn Valley Farm, Narberth, Pa. Pol. Science, LAFORE, LAURENCE DAVIS, '38 35 Violet Lane, Lansdowne, Pa. Psychology, LAIRD, MARY L., '36 Norristown, Pa. LAMB, WALTER, Special Engineering, 111 Bala Ave., Bala-Cynwyd, Pa. LANDIS, ELFRIDA GERTRUDE, '36 English, Croton-on-Hudson, N.Y. English, LANE, DAVID, '38 Old Saugatuck Road, East Norwalk, Conn LANG, ALICE HUDSON, '39 443 E. 87th St., New York, N.Y. History, LANG, EUGENE M., '38 240 W. 102nd St., New York, N.Y. LANGE, HENRY STANLEY, '38 Port Washington, L.I., N.Y. English, LAPHAM, ANN WILLETS, '38 West Main St., Georgetown, Mass. LARKIN, BAINBRIDGE MORSE, '39 225 S. 15th St., Philadelphia, Pa. LEEPER, MARGARET FRASIER, '39 3430 Mt. Pleasant St., Washington, D.C. Physics, LEES, WAYNE LOWRY, '37 920 S. 48th St., Philadelphia, Pa. LEINROTH, ROBERT GEORGE, II, '38 Engineering, Wilson Drive, Ben Avon Heights, Pa. Pol. Science, LESHER, BARBARA, '37 1011 Fillmore St., Philadelphia, Pa. Greek, LEVER, KATHERINE, '36 LEVERING, FREDERICK AUGUSTUS, III, 304 Wendover Road, Baltimore, Md. English, '38 1502 Pennsylvania Ave., Wilmington, Del LEWIS, AURETA ELISE, '39 505 Swarthmore Ave., Swarthmore, Pa. Philosophy, LEWIS, E. RUTH, '38

LEWIS, RUTH MARY, '37 Economics. LICHTENWALNER, LAIRD, '36 LINDSAY, SALLY, '20 LIPPINCOTT, RICHARD EWING, '30 LITTLE, EDWARD SOUTHARD, '30 LIVINGSTON, WILLIAM TOLIVER, II. 39 Zoöloav. LOCKE, HENRIK WENTZEL, '26 LOEB, CHARLES WILLIAM, '37 LOEB, THOMAS H., '36 LOMB, EMILY CAROLYN, '38 LOMBARD, PERCIVAL HALL, IR., '38 LONGSHORE, WILLIAM ALLEN, JR., '37 LOVE, JOHN KING, JR., '38 LUPTON, VIRGINIA LOUISE, '37 LYKENS, GEORGE BRINTON, JR., '39 LYON, CHARLES STUART, '37 LYONS, FLORENCE, '36 MCCARTY, MARY DUBOIS, '36 MCCLELLAND, SALLY KATE, '39 MCCORD, JANE ELISABETH, '36 MCCORMACK, JAMES FRANKLIN, '36 MCDERMOTT, MARY KATHARINE, '38 Psychology, MCDONALD, ELLICE, JR., '38 MCHUGH, J. VERNON, '36 MCINTYRE, DAVID, '39 MCKAY, MARGERY INGZEL, '36 MACPHAIL, LELAND STANFORD, JR., '39 MACY, EDWARD ARTHUR, '37 MADDEN, BETTY JEAN, '38 MAGINNISS, GERTRUDE ELAINE, '39 MALCOLM, JAMES ARTHUR, JR., '38 MALONE, HELEN BOURKE, '36 MALONE, STEPHEN PHARES, '39 MARIS, MARY H., '36 MARSH, MICHAEL, '38 MARSHALL, JOHN, JR., '38 MARTENET, RACHEL L., '39 MARTIN, JANE WARD, '39 MASON, RICHARD BENJAMIN, '39 MATSUOKA, YOKO, '39 MATZ, ELIZABETH, '38 MAUGER, MARGARET HELEN, '36 MEADER, KENNETH RANDALL, '39 MENUEZ, MARGARET MARTIN, '38 MEYER, JANE LOUISE, '37 MEYER, KATE, '37 MICHAEL, ELIZABETH IRENE, '39

Pol. Science.

Zoölogy. History. Mathematics. English. Zoöloav. Zoölogy. Zoöloav. Economics.

History. Psychology.

Mathematics. Economics. English. Economics. English. Economics. Zoölogy, English,

Economics. Pol. Science, English.

Engineering, Economics, Engineering. French, Economics. Physics,

Economics,

French. Psychology, English, Psychology. Psychology, English,

Roslvn, L.I., N.Y. 25 S. 4th St., Emaus, Pa. 277 Park Avenue, New York, N.Y. R. D. I. Norristown. Pa. 1002 Grand Ave., Toledo, Ohio,

705 State St., Natchez, Miss. 14 N. 27th St., Camden, N.I. 945 Ridgemont Ave., Charleston, W.Va. 5017 Ellis Ave., Chicago, Ill. 133 E. 80th St., New York, N.Y. 619 Boylston St., Brookline, Mass. 8203 Cedar Road, Elkins Park, Pa. 25 N. 2nd St., Easton, Pa. 338 Market St., Lewes, Del. 16 W. Langhorne Ave., Llanerch, Pa. 41 Church St., Saranac Lake, N.Y. 146 Brookline Blvd., Upper Darby, Pa.

37 W. Preston St., Baltimore, Md. Jarrettown, Pa. 220 Walnut Ave., Wayne, Pa. 2104 N. 6th St., Sheboygan, Wis. 223 Woodlawn Ave., Topeka, Kan. 8305 Seminole Ave., Philadelphia, Pa. 1400 Lovering Ave., Wilmington, Del. 201 N. Portland Ave., Ventnor, N.J. 666 Ferne Ave., Drexel Hill, Pa.

196 Green Hills Road, Cincinnati, Ohio. 12 Clark St., Brooklyn, N.Y. 248 Windemere Ave., Lansdowne, Pa. 5836 Warrington Ave., Philadelphia, Pa. Jericho, L.I., N.Y. 615 N. Center St., Beaver Dam, Wis. 711 Ferguson Ave., Dayton, Ohio. 39 Owen Ave., Lansdowne, Pa. 1626 Riggs Pl., N.W., Washington, D.C. Lincoln Ave., Swarthmore, Pa. 313 Woodlawn Road, Baltimore, Md. 143 Parkway Ave., Chester, Pa. 138 Rutledge Ave., Rutledge, Pa. 15701 Fernway Rd., Shaker Heights, Ohio. 323 S. Washington St., Hinsdale, Ill. 61 Templar Way, Summit, N.I. Conway Center, N.H. 25 Grandview Ave., Pleasantville, N.Y. 1014 Prospect Ave., Melrose Park, Pa. 5490 S. Shore Drive, Chicago, Ill. 300 Park Ave., Swarthmore, Pa.

MICHENER, HERBERT EDMUND, JR., '39 MILLER, MARY JANE, '38 MILLER, SEYMOUR IRVING, '38 MILLS, ADELE CONWAY, '37 MIMS, ELIZABETH WEBB, '38 MITCHELL, BETTY LOU, '39 MITLER, ERNEST ALBERT, '38 MOFFET, JOHN ANDREW, 37 MOHL, EVELYN E., '38 MOODY, WINIFRED C., '36 MOORE, EDWIN EVANS, '38 MOORE, MARGARET GLOVER, '38 MORNINGSTAR, EDWARD MARTIN, '39 MORRIS, PATTY F., '37 MORRIS, ROBERT HARVEY, '39 MORSE, VIRGINIA WOODWORTH, '39 MORRISSETT, IRVING A., JR., '37 MOYER, GEORGETTE KEATH, '38 MURPHY, CAMPBELL GARRETT, '36 MURPHY, CAROL ROZIER, '37 MURPHY, JAMES ANDERSON, '37

NEALE, ROBERT DUDLEY, JR., '39 NEVIN, ETHAN ALLEN, '36 NEWELL, HENRY HAZEN, '36 NEWKIRK, VIRGINIA ALICE, '38 NEWTON, HAROLD PIERPONT, JR., '37 Engineering, NIELSEN, CARL SHERWOOD, '38 NUTE, WILLIAM LAUBACH, JR., '38

OEHMANN, PAUL B., 36 OESPER, PETER, '38 OGDEN, ARTHUR K., '36 OLDS, DAVID MCNEIL, '39 OSBOURN, JACK IDDINGS, '37 OTTENBERG, JAMES SIMON, '39

PALMER, CLINTON BUDD, '37 PARIS, JOHN PAUL BRIDGE, '39 PARKER, FRANK CLAVELOUX, JR., '38 Zoölogy, PARRISH, LAWRENCE LIPPINCOTT, '36 Economics, PARTON, MARGARET ANNE, '37 PASCAL, JOAN MARY, '39 PASSMORE, ELIZABETH BROOMELL, '39 PATTERSON, LORRAINE, '36 PATTERSON, WILLIAM DOERR, '39 PEARSON, BARBARA WALTON, '37 PEARSON, OLIVER PAYNE, '37 PEASE, RICHARD BURNETT, '39

Engineering,

Chemistry, English, History, Philosophy Economics, Engineering, Philosophy, Philosophy, Engineering, English, French,

English, Economics,

Economics, Pol. Science, Economics,

Pol. Science, English, English, French,

English,

Economics, Mathematics, Philosophy, Pol. Science, History,

History, Chemistry, English, English,

Engineering, English, Zoölogy, Engineering, Lincoln Ave., Swarthmore, Pa. 301 Franklin St., Cape May, N.J. 703 N. Broome St., Wilmington, Del. 1616 S. Denver St., Tulsa, Okla. Brookside Drive, Greenwich, Conn. 630 University Place, Swarthmore, Pa. 755 Park Ave., New York, N.Y. 207 W. Chew Street, Philadelphia, Pa. Herod's Gate, Jerusalem, Palestine. 9 Merrimac St., Concord, N.H. 417 Linden Ave., Riverton, N.J. 3329 Chalfant Rd., Shaker Heights, Ohio. 103 Walsh Road, Lansdowne, Pa. Grosvenor Lane, Bethesda, Md. 142 Vassar St., Rochester, N.Y. 615 James St., Syracuse, N.Y. 625 Grafton Ave., Dayton, Ohio. Schaefferstown, Pa. 132 W. Lancaster Pike, Wayne, Pa. 315 Cedar Lane, Swarthmore, Pa. 813 E. College Ave., Appleton, Wis.

12 Oak Knoll Gardens, Pasadena, Calif. 118 Bartle Ave., Newark, N.Y. 4600 Marvine Ave., Drexel Hill, Pa. 300 Center St., Westmont, N.J. 22 Maher Ave., Greenwich, Conn. 544 Ravine Ave., Lake Bluff, Ill. Amerikan Klinigi, Talas, Turkey.

3916 Morrison St., N.W., Washington, D.C. 2323 Ohio Ave., Cincinnati, Ohio. 2442 W. Oakdale St., Philadelphia, Pa. 953 LaClair St., Pittsburgh, Pa. 7 Wynnewood Ave., Abington, Pa. 161 West 86th St., New York, N.Y.

15 N. Second St., Easton, Pa. 818 W. Market St., Bethlehem, Pa. 42 N. Whitehall Road, Norristown, Pa. 901 Thomas Ave., Riverton, N.J. Palisades, N.Y. 26 W. 76th St., New York, N.Y. Glen Mills, Pa. 1333 Hunting Park Ave., Philadelphia, Pa. 1333 Hunting Park Ave., Philadelphia, Pa. Serpentine Lane, Wyncote, Pa. 210 W. Mermaid Lane, Philadelphia, Pa. 30 Larchwood Ave., Upper Darby, Pa.

PEELLE, ROBERT BEATTY, '39 PELTON, HUGH GORDON, '37 PERKINS, THOMAS HAINES DUDLEY, '37 PERLOFF, ROBERT EARL, '38 PERRY, THOMAS BENTON, '37 PETER, CAMILL JOSEPH, JR., '37 PETER, MARGARET WHIPPLE, '38 PETER, PAUL CAMILL, '36 PETERS, JOSEPHINE HARRIET, '37 PETROW, CHRIST JOHN, '38 PETTET, EDWIN BURR, '37 PETTY, JESSIE ELOISE, '39

PHILLIPS, MARY DORIS, '37 PIERCE, HELEN HARRIET, '38 PLUM, MARLETTE, '36 PITTINGER, LINCOLN, '37 POLIFRONI, VINCENT, JR., '37 POORMAN, MARY JEAN, '36 PORTER, JEAN, '38 PORTER, HELEN, '39 POST, RICHARD, '36 POTTINGER, JOHN ARCHER, '37 POWELL, DONALD MOORE, '36 PRENTICE, WILLIAM C. H., '37 PRICE, CARROLL BARNARD, JR., '37 PRICE, CELIA ROGERS, '39 PRICE, WILLIAM HOGGATT, '39 PROCTOR, KATHARINE, '38 PURCELL, DONALD H., '37

RAEBECK, ANNE VIRGINIA, '38 RAMSDELL, PAULINE ALDEN, '39 RAMSEYER, JANE PHILLIPS, '38 REED, FRANCES SUSANNA, '37 REID, HARRY FAIRFAX, JR., '39 REUNING, ERNST GÜNTHER, '38 REUTER, FLORENCE JANE, '38 RHOADS, MARGARET ALICE, '37 RICE, JOHN MUIRHEAD, '37 RICHARDS, BURTON, '38 RICHARDSON, KATHARINE WINTON, '38 RICKEY, MABEL ALICE, '39 RITTER, RUTH ELLEN, '39 ROBERTS, EDWARD HALL, '36 ROBERTS, JOHN WATTS, '39

ROBERTSON, JEAN, '36 ROBINSON, CHRISTINE, '36

Economics. Zoölogy, Economics, Economics. English, Economics, English,

Economics,

English.

French, English, French. Engineering, Economics, Zoölogy, French,

Engineering. Pol. Science, English. English, Engineering,

French, English,

Zoölogy, Chemistry, Pol. Science, Pol. Science, Engineering, Elect. Engin.,

History, Economics,

Zoölogy, Latin. Engineering,

History, Economics,

29 Euclid St., Forest Hills, N.Y. 3602 Springdale Ave., Baltimore, Md. Haddonfield Road, Moorestown, N.J. 8246 Brookside Road, Elkins Park, Pa. 7335 Tabor Road, Philadelphia, Pa. 119 Vassar Ave., Albuquerque, N. Mex. 7335 Tabor Road, Philadelphia Pa. 134 S. Lansdowne Ave., Lansdowne, Pa. 1009 N. Broad St., Fremont, Neb. 57 Parkview Place, Baldwin, N.Y. Pa. 1715 8th Ave., Beaver Falls, Pa. 1225 E. 25th St., Tulsa, Okla. 31 Brookway Ave., Englewood, N.J. South Ave., New Canaan, Conn. Stratford, Va. New Hope, Pa. New Hope, Pa. 726 W. Beach, Pass Christian, Miss.

159 131st St., Belle Harbor, L.I., N.Y. 51 Hudson Ave., Englewood, N.J. 3505 Davis St., N.W., Washington, D.C. 6729 Penn Ave., Pittsburgh, Pa. 115 Deepdene Road, Baltimore, Md. 47 Amherst Ave., Swarthmore, Pa. 309 York Avenue, Towanda, Pa. Tobyhanna, Pa. Louella Court, Wayne, Pa. Swarthmore Apts., Swarthmore, Pa.

555 N. Broadway, Lexington, Ky. Clayton Road, Clayton, Mo. 436 Locust Ave., Burlington, N.J. 409 College Ave., Swarthmore, Pa. Princess Anne, Md. 806 Florida Ave., Urbana, Ill. 411 College Ave., Swarthmore, Pa.

723 E. 4th St., York, Neb.

Netherland Apt., Elwood St., Pittsburgh,

167 Owen Ave., Lansdowne, Pa. Hilltop Farm, New Castle, Del. 105 S. Oxford Ave., Atlantic City, N.J. 239A Brooklyn Ave., Brooklyn, N.Y.

221 Price Ave., Narberth, Pa. 622 Seminole Ave., Atlanta, Ga.

250 Park Ave., Westbury, L.I., N.Y.

Proctor. Vt.

Eastview Ave., Pleasantville, N.Y.

ROBINSON, HARRY DIXON, JR., '36	History,	723 Madison St., Chester, Pa.
Roche, Preston, '36	Engineering,	235 Park Ave., Swarthmore, Pa.
Rockwood, Robert Bruce, '39	~	Kuonool, South India.
Rome, Edwin Phillips, '37	English,	44th and Spruce Sts., Filladelphia, 1a.
ROPE, BARTON W., '37	Chemistry,	263 Olean St., East Autora, N.I.
ROSENBAUM, CLARENCE HENRY, '38	Economics,	1000 Dayard Fark Drive, Evansvine, ind
Ross, Isabel Holly, '37	English,	324 E. 25th St., Brooklyn, 101.
ROUS, MARIAN DEKAY, 11, 39	Deachologa	125 E. Zancaster Ave. Wayne, Pa.
ROWLAND, ELIZABETH, 37	Corman	1215 Delaware Ave. Wilmington, Del.
RUNGE, EDITH AMELIE, 30	Fnalish	Bow Road, Wayland, Mass.
RUSSELL, CONSTANCE STAIMES, 30	English,	Wischman Ave., Oreland, Pa.
DVAN MARY WERE '20	English.	133 Oakleigh Road, Newton, Mass.
RIAN, MARI WEDD, 39	Linguising	
SÁENZ, JOSUÉ, '36	Economics,	Sierra Madre 305, Lomas de Chap.,
		Mexico, D.F.
SAKAMI, WARWICK, '38	Chemistry,	86 E. Essex Ave., Lansdowne, Pa.
Sakami, Yuri, '36	Psychology,	86 E. Essex Ave., Lansdowne, Pa.
SALM, ALLAN HERMAN, '37	Economics,	619 Adams Ave., Evansville, Ind.
SATTERTHWAITE, FRANKLIN E., '36	Engineering,	825 Standish Ave., Westheld, N.J.
SAURWEIN, JEAN, '38	Economics,	247 Stade St., Definiti Mass.
SCHAFFRAN, EUGENE MORTON, 37	Psychology,	131 East 21st St., Drooklyn, N.I.
SCHAIRER, KOBERT SORG, '36	Engineering,	40 Emi Lane, Bronxvine, IV.1.
SCHERMAN, KATHARINE WHIINEI,		Aro Riverside Drive New York, N.Y.
38	Fromomics	1047 W Erie Ave., Philadelphia, Pa.
SCHLESSINGER, ABE, 11, 37	Pol. Science.	or28 Bennett Ave., Evanston, Ill.
SCHMIDI, HELEN LUDISE, 30	1 on Deremee,	2524 S. Owasso St., Tulsa, Okla.
SCHOCK PATRICIA WARD. '20		344 Iriquois Place, Beaver, Pa.
SCHORLING, RUTH MARY, '39	Zoölogy.	403 Lenawee Drive, Ann Arbor, Mich.
SCHROEDER RAYMOND G. '37	History,	464 Heights Road, Ridgewood, N.J.
SCHWARTZ, IRVING SAMUEL, '37	Pol. Science,	Broad St. and 65th Ave., Philadelphia, Pa.
SCHULZE, DOROTHY HAIGHT, '38	Economics,	1315 S. 3rd St., Louisville, Ky.
SCOLL, EMANUEL, '38	Economics,	2206 Whittier Ave., Baltimore, Md.
SCOTT, WILLIAM TAUSSIG, '37	Physics,	46 Union St., Pleasantville, N.Y.
SCULL, DAVID HUTCHINSON, '36	Philosophy,	45 Flower Ave., Takoma Park, Md.
Selligman, Joseph, '37	Psychology,	1415 Willow Ave., Louisville, Ky.
SEYBOLD, JOHN WARREN, '36	Economics,	Mountain Lakes, N.J.
SHAFFER, FREDERICK METTAM, '38		2705 Chelsea Terrace, Baltimore, Md.
Shaw, Barbara, '39		7 Albemarle Place, Yonkers, N.Y.
SHEPHERD, RUSSELL MILLS, '38	Pol. Science	215 Kathmere Road, Brookline, Pa.
SHERO, GERTRUDE CAROLINE, '38		651 N. Chester Road, Swarthmore, Pa.
SHILCOCK, HELEN MAY, '36	English,	Pa.
SHOEMAKER, RUTH ANNA, '37	German,	510 Riverview Road, Swarthmore, Pa.
Shohl, Jane, '39		Mirror Lake, N.H.
SHOTWELL, DORIS ROBERSON, '39	French,	I School Plaza, Franklin, N.J.
SHRADER, ERWIN FAIRFAX, '37	Physics,	518 Harper Ave., Drexel Hill, Pa.
SILLARS, ROBERTSON, '39	n 1 a .	5 Kay St., Schenectady, N.Y.
SIMMER, LEONARD KEITH, '39	Pol. Science	750 N. Green St., Ottumwa, 10wa.

STUDENTS

SIMMONS, ERIC LESLIE, '38 St. Thomas, Virgin Islands. Botany, SINCLAIR, JOHN P., '36 Economics. 227 Orchard Road, Newark, Del. SINGISER, GEORGE WILEY, '37 16 Stoneleigh Road, Watertown, Mass. History. SKETCHLEY, ROBERT M., Special 7007 Boyer St., Philadelphia, Pa. 40 Kent Road, Upper Darby, Pa. SLACK, JEAN CARTER, '30 English. SMITH, CHARLES DOUGLAS, '36 141 Henry St., Brooklyn, N.Y. SMITH. CONSTANCE ISABELLE, '37 Botany. 329 N. Owen Ave., Lansdowne, Pa. SMITH. DONALD DAVID, '39 1097 E. 19th St., Brooklyn, N.Y. SMITH, EDWIN BURROWS, '38 Pol. Science. 2804 14th St., N.W., Washington, D.C. SMITH, ELEANOR PANCOAST. '39 Lincoln, Va. English. 4805 Montrose Drive, Dallas, Texas. SMITH, ELIZABETH, '36 SMITH. FRANKLIN RUSSELL. '37 325 West Ave., Jenkintown, Pa. SMITH. GRACE HAMILTON. '36 History. Stokes Lane, Nashville, Tenn. SMITH, LAURA VIRGINIA, '36 English, 4500 Carleview Road, Baltimore, Md. 2042 Brunswick Road, E. Cleveland, Ohio. SMITH. MANNING AMISON, '37 Chemistry. Zoölogy, 19 Granger Place, Buffalo, N.Y. SMITH, MARTHA LOUISE, '37 SMITH, NATHAN LEWIS, IR., '39 Engineering. 4500 Carleview Road., Baltimore, Md. SMITH, WILLIAM FRANCIS, '37 Engineering. 44 Santa Clara Ave., Dayton, Ohio. SNYDER, ALLEN GOODMAN, JR., '38 523 E. Willow Grove Ave., Chestnut Hill, Pa. SNYDER, MARIAN READER, '38 233 N. Lansdowne Ave., Lansdowne, Pa. Pol. Science. SOLIS-COHEN, HELEN, '37 City Line and Mountain Ave., Philadelphia, Pa. SOLIS-COHEN, MARY, '39 709 Rambler Road, Elkins Park, Pa. Philosophy. 327 Egandole Road, Highland Park, Ill. SONNENSCHEIN, HUGO, JR., '38 36 W. Walnut St., Souderton, Pa. SOUDER, ELVIN RITTENHOUSE, '39 SPENCER, THOMAS FURMAN, '37 Economics. 187 Erie Road, Columbus, Ohio. SPRUANCE, FRANK PALIN, JR., '37 Chemistry, 8204 Cedar Road, Elkins Park, Pa. STAAKS, WALTER, '37 French. 126 E. 24th St., New York, N.Y. STARR, DAVID HOWELL, '39 3301 Fifth Ave., Beaver Falls, Pa. STEARNS, BARBARA, '39 254 Arlington Ave., Brooklyn, N.Y. Mathematics. STEEL, HELEN RAWSON, '39 4422 Lowell St., N.W., Washington, D.C. STEIN, PHILIP LOUIS, '30 1525 Cory Drive, Dayton, Ohio. STEINBACH, JOSEPHINE SCHAEFFER, '38 71 Chestnut St., Lewistown, Pa. STEINBERG, HAROLD BERTRAM, '36 Pol. Science. 5844 Chestnut St., Philadelphia, Pa. STEVENS, MARTHA MARIE, '39 Philosophy, 205 Oakwood Ave., Ottumwa, Iowa. STEVENS, WILLIAM, '37 English. 123 Heather Road, Upper Darby, Pa. STICHLER, MARGARET HELEN, '37 443 S. 43rd St., Philadelphia, Pa. STILZ, ELIZABETH BOYD, '37 Pol. Science. 5425 Julian Ave., Indianapolis, Ind. STONE, ANNE EXTON, '39 431 Berkley Road, Haverford, Pa. STONE, ELISE EMMA, '39 152 Kilburn Road, Garden City, N.Y. STONE, HOFFMAN, '38 Chemistry, 1375 Dean St., Brooklyn, N.Y. STORM, FAITH EMILY, '38 307 Vassar Ave., Swarthmore, Pa. English. STORR, RICHARD JAMES, '37 History. Olivet, Mich. STOVER, ETHEL KNORR, '36 11 Forest Road, Wheeling, W.Va. English, STRAKA, F. GORDON, '37 Pol. Science. 1117 Stratford Ave., Melrose Park, Pa. STRATTON, RUTH FERRIER, '36 Psychology. 133 E. Oak Ave., Moorestown, N.J. STREET, ROSE ELISABETH, '38 Mathematics, 123 N. 10th St., Olean, N.Y. STRONG, FREDERICK CARL, III, '39 Chemistry, Box 217, Windsor, Conn.

313 Park Ave., Swarthmore, Pa. STROTHER, CORA MAXWELL, '36 English, 1240 E. 40th St., Brooklyn, N.Y. English, STUBBS, ELIZABETH REISLER, '38 5601 Western Ave., Chevy Chase, D.C. SUTTON, DOROTHY PHELPS, '38 History, 418 Central Park, W., New York, N.Y. SWARTHE, PAULA M., '39 99 Claremont Ave., New York, N.Y. SWIFT, ARTHUR LESSNER, '39 Economics, Maple St., Hinsdale, Mass. History, SWIFT, LEONARD FORDYCE, '37 524 Lincoln Way, E., Massillon, Ohio. Engineering, TAGGART, CHARLES I., '37 Plymouth Meeting, Pa. Engineering, TAPLEY, GORDON PAUL, '38 240 W. Montgomery Ave., Haverford, Pa. TATMAN, ALINA ELIZABETH, '39 English, 217 Walnut Ave., Wayne, Pa. TAYLOR, ELIZABETH DAWSON, '39 Zoölogy, 11 Shoreview Rd., Port Washington, N.Y. TAYLOR, THOMAS BASSETT, JR., '35 Economics. 209 Yale Ave., Swarthmore, Pa. Engineering, TAYLOR, WILLIAM D., '36 613 Ogden Ave., Swarthmore, Pa. THATCHER, EDWARD POWER, '39 THATCHER, RICHARD CASSIN, JR., '37 Engineering, Lookout Mountain, Tenn. 112 W. Main St., Lock Haven, Pa. THOMAS, GRACE MARY, '39 46 Richards Road, Port Washington, N.Y. THOMAS, JOHN CUNNINGHAM, '39 Chemistry, 21 Oberlin Ave., Swarthmore, Pa. THORN, STEWART, '39 6201 Ventnor Ave., Ventnor, N.J. TILTON, MARGARET MARIA, '36 Fine Arts, 202 Midland Ave., Wayne, Pa. TIMMIS, NORAH MARGARET, '37 English, 1700 T St., Washington, D.C. TODD, DAVID, '38 Chemistry, English, 8 Garden Road, Red Bank, N.J. TODD, GUERIN, JR., '38 P. O. Box 660, Istanbul, Turkey. TOMPKINS, JEAN ANNABEL, '38 1430 Lake Shore Drive, Chicago, Ill. English, TRACY, ANNE ALEXANDER, '38 808 S. E. Riverside Drive, Evansville, Ind TRIMBLE, ANN, '38 Zoölogy, 808 S. E. Riverside Drive, Evansville, Ind TRIMBLE, MARGARET, '39 184 St. Johns Place, Brooklyn, N.Y. TROEGER, ERNEST ROBERT, '38 English, 28 Monroe Place, Brooklyn, N.Y. TURNER, ROBERT CHAPMAN, '36 Economics, Ithan Road, Rosemont, Pa. UNDERDOWN, MARJORY, '39 Latin, Box 24, Moylan, Pa. UNDERHILL, SARAH GILPIN, '39 1436 Lowell Road, Schenectady, N.Y. Pol. Science, VANBRUNT, ANN BRADLEE, '37 10016 198th St., Hollis, N.Y. Pol. Science, VANDEUSEN, MARJORIE W., '38 Zoölogy, 8345 Lefferts Blvd., Kew Gardens, N.Y. VALENTINE, BRUCE ROBERTS, '39 8345 Lefferts Blvd., Kew Gardens, N.Y. Engineering, VALENTINE, GEORGE, '38 VAUGHN, JANET CORRALL, '38 Ponus Ave., Norwalk, Conn. Benton Harbor, Mich. VAWTER, VIRGINIA HADLEY, '38 French, 39 Cambridge Road, Scarsdale, N.Y. VELTFORT, THEODORE ERNST, JR., '37 Physics, 210 Rutgers Ave., Swarthmore, Pa. Engineering, VIEHOVER, ARNOLD JOSEPH, '38 1300 E. 13th St., Eddystone, Pa. VILA, JOSEPH LAZARUS, '39 Chemistry, 73 Edgemont Road, Upper Montclair, N.J VOSKUIL, MARGARET HELEN, '39 1602 S. Detroit St., Tulsa, Okla. WALKER, BETTY, '39 Westtown School, Westtown, Pa. WALKER, ROBERT BELL, '39 Engineering, Athens, Tenn. Mathematics, WALTHALL, MARTIN BACON, '38 20 Canterbury Rd., Ben Avon Heights, Pa WARD, MARJORIE ELIZABETH, '38 Engineering, 54 Linden Blvd., Brooklyn, N.Y. WARNER, RICHARD DIXON, '39 517 Walnut Lane, Swarthmore, Pa. WARREN, ANNE BAKER, '38 English Engineering, 640 E. Broad St., Tamaqua, Pa. WARRINGTON, JOHN BURWELL, '39 240 S. Goodman St., Rochester, N.Y. French, WATERMAN, MINA, '37

STUDENTS

WATKINS, LOUISE COATES, '36	Economics,	2726 Belvoir Blvd., Shaker Heights, Ohio.
WATSON, ELIZABETH DISSOSWAY, '38	Psychology,	491 Mt. Hope Ave., Rochester, N.Y.
WATSON, GRETCHEN LOUISE, '38		79 Monterey Ave., Detroit, Mich.
WAY, ELIZABETH LINVILL, '38	Psychology,	63 W. Drexel Ave., Lansdowne, Pa.
WEAVER, CHARLOTTE JAN, '38		18128 W. Clifton Road, Lakewood, Ohio.
WEAVER, GERTRUDE S., '38		501 Kerlin St., Chester, Pa.
WEEKS, FRANCIS WILLIAM, '37	English,	11 Hawthorne Place, East Orange, N.J.
WEISS, BARBARA ELIZABETH, '37	English,	120 Ely Place, Madison, Wis.
WELCH, THOMAS HARRIS, '38	Chemistry,	Westfield, N.Y.
WELTMER, JEAN THOMPSON, '38	Botany,	145 N. Highland Ave., Springfield, Pa.
WETZEL, BARBARA, '38	English,	Homestead Road, Strafford, Pa.
WHITCRAFT. ANN ELIZABETH, '37	Pol. Science,	409 S. Church St., West Chester, Pa.
WHITE, GARY, '30	Chemistry,	301 College Ave., Swarthmore, Pa.
WHITE, KATHARINE MORTON, '37	Botany,	70 Tillotson Road, Fanwood, N.J.
WHITE MARY ELMA. '26	Economics.	120 Hilldale Road, Lansdowne, Pa.
WHITE MURIEL BARNETT. '37	French.	113 Essex Ave., Narberth, Pa.
WHITFORD MARY LYDIA. '29		150-14 87th Ave., Jamaica, N.Y.
WHITMAN EMILY '27	Pol. Science.	39 Hurlbut St., Cambridge, Mass.
WHYTE WILLIAM FOOTE, '36	Economics,	36 Pondfield Road., W., Bronxville, N.Y.
WICKENHAVER SIDNEY LAMONT. '37	Pol. Science,	327 N. 24th St., Camp Hill, Pa.
WIEST FRED L. '27	Economics.	Minersville, Pa.
WILDE ISABEL LOUISE, '27	English.	628 River Road, Beaver, Pa.
WILLITS FLORENCE ELIZABETH. '38		102 Duck Pond Road, Glen Cove, N.Y.
WILLITS, JUDITH ABBOTT, '38	Botany,	30 Chestnut St., Haddonfield, N.J.
WILSON JAMES MORRISON, JR., '20		501 Puritan Apts., Louisville, Ky.
WILSON JANET DOROTHY, '29		309 Wellington Road, Jenkintown, Pa.
WING DEBORAH OSBOURN, '38	English.	15 Magnolia Ave., Newton, Mass.
WINSTON, JOSEPH, '28		115 Greenridge Ave., White Plains, N.Y.
WOLF ROBERT. '20	Chemistry.	47 Sunshine Road, Upper Darby, Pa.
WOLFE SAMUEL '30	Engineering.	3420 Porter St., N.W., Washington, D.C.
WOOD CAROLYN MIDDLETON, '37	History.	104 Chester Pike, Ridley Park, Pa.
WOOD, CYRUS FOSS, '37	Engineering,	329 Hathaway Lane, Wynnewood, Pa.
WOOD, JOHN HENRY, IR., '37	Economics.	Station Ave., Langhorne, Pa.
WOOD MARCARET PASSMORE. '20	English.	104 Chester Pike, Ridley Park, Pa.
WOOD WILLIAM P., '26	Economics.	104 Chester Pike, Ridley Park, Pa.
WOOLLCOTT TOAN. '20		Eden Terrace, Catonsville, Md.
WORTH EDWARD HALLOWELL, IR.,		
'20		Claymont, Del.
WRAY RICHARD BOWMAN, '28	Economics.	540 Walnut Lane, Swarthmore, Pa.
WRIGHT JOHN FISHER '20	History.	4 Whittier Place, Swarthmore, Pa.
WRIGHT LOIS LAURA '28		Parkside Apts., Hanover, N.H.
WINDERIE HORACE GODEREY IR.		, ,
"20	Economics.	Rydal, Pa.
39		
YARD, FLORENCE HICKCOX, '39	English,	630 Sheridan Road, Chicago, Ill.
YERKES, CAROLYN MARGARET, '37		985 Vine St., Winnetka, Ill.
Young, Drew MacKenzie, '37	English,	324 West Ave., Jenkintown, Pa.
ZAND HELEN THEREPOR		1004 Cornell Ave. Drevel Hill Pa
ZIODOGER CAROLA '20	Prachologa	A Liberty St Ossining NV
ZIGKUSSEK, CAKULA, 30	r sychology,	722 Greenwood Ave Glencoe Ill
ZINNER, JAMES SHANDOR, 39		/23 Ortennood Irve, Orencoe, In.

GEOGRAPHICAL DISTRIBUTION OF STUDENTS

1935-36

New York 12 New Jersey 58 Ohio 30 Illinois 24
New Jersey 53 Ohio 30 Illinois 24
Ohio
Illinois
Maryland
District of Columbia
Massachusetts
Connecticut
Michigan
Delaware
Indiana
Wisconsin
New Hampshire
Kentucky
Iowa
Oklahoma
Tennessee
Missouri
Nehraska
Virginia
Vermont
California
Florida
Mariao
Micalco
Tursissippi
1 urkey
west virginia 2
Georgia I
nungary I
10ano I
India I
Kansas I
Maine I
New Mexico I
Palestine I
Rhode Island
Texas I
Virgin Islands I
Washington I
1 OTAL

HOLDERS OF FELLOWSHIPS

HOLDERS OF THE HANNAH A. LEEDOM FELLOWSHIP

1913-14.

ARTHUR PERCIVAL TANBERG, A.B., 1910; A.M., 1913; Ph.D., Columbia University, 1915. Director, E. I. duPont de Nemours & Co., Experimental Station, Wilmington, Del.

1914-15.

ARCHER TAYLOR, A.B., 1909; A.M., University of Pennsylvania, 1910; Ph.D., Harvard University, 1915. Professor of German Literature, University of Chicago.

1915-16.

HAROLD S. ROBERTS, A.B., 1912; A.M., Princeton University, 1915; Student at the University of Wisconsin, 1915-17. Teacher of French and Spanish, St. Paul's School, Garden City, N. Y.

1916-17.

HANNAH B. (STEELE) PETTIT, A.B., 1909; A.M., 1912; Ph.D., University of Chicago, 1919. Astronomer.

1917-18.

JAMES MONAGHAN, JR., A.B., 1913; A.M., University of Pennsylvania, 1918.

1918-19.

CHARLOTTE (BREWSTER) JORDAN, B.L., 1882; M.L., 1886; studied in Madrid. Translator and writer.

1919-20.

PAUL M. CUNCANNON, A.B., 1915; A.M., Princeton University, 1920; Ph.D., *Ibid.*, 1925. Assistant Professor of Political Science, University of Michigan.

1920-21.

WILLIAM CHRISTIE MACLEOD, A.B., 1914; Ph.D., University of Pennsylvania, 1924. Assistant Professor of Finance, Wharton School, University of Pennsylvania.

1921-22.

LEON M. PEARSON, A.B., 1920; A.M., Harvard University, 1922. Teacher, Oral English, Haverford School, Haverford, Pa., 1924-1934. Journalist.

1922-23.

W. RALPH GAWTHROP, A.B., 1918; M.S., University of Pennsylvania, 1924. Patent Lawyer, du Pont Ammonia Co.

1923-24.

WILLARD S. ELSBREE, A.B., 1922; A.M., Columbia University, 1924; Ph.D., *Ibid.*, 1928. Assistant Professor of Education, Teachers' College, Columbia University. Studied abroad, 1930-31.

1924-25.

WALTER ABELL, A.B., 1920; A.M., 1924. Studied in France. Professor of Art, Acadia University, Wolfville, Nova Scotia, Canada.

1926-27.

MARGARET (PITKIN) BAINBRIDGE, A.B., 1925; Ph.D., University of Chicago, 1928. Assistant Professor of Romance Languages, Swarthmore College, 1928-33.

1927-28.

AUDREY SHAW (BOND) ALEISTORE, A.B., 1926; M.A., University of Chicago, 1928. Assistant, Department of Romance Languages, Northwestern University.

1928-29.

SAMUEL ROBERT M. REYNOLDS, A.B., 1927; A.M., 1928; Ph.D., University of Pennsylvania, 1931; Fellow, National Research Council, 1931-32, Carnegie Institution, Baltimore, Md. Instructor in Physiology, Medical School, Western Reserve University, 1932-33. Assistant Professor of Physiology, Long Island College of Medicine, 1933-.

1929-30.

EDWARD SELLERS, A.B., 1928. Studied at Brown University, 1929-30. Actuarial Clerk, Guardian Life Insurance Co.

1930-31.

ELIZABETH (HORMANN) STRODACH, A.B., 1927; M.A., University of Pennsylvania, February, 1930.

1931-32.

HELEN STAFFORD, A.B., 1930; A.M., Bryn Mawr, 1931; Ph.D., *Ibid.*, 1935; Holder of Bryn Mawr European Fellowship, 1932-33; Teacher at the Ethel Walker School, Simsbury, Connecticut.

1932-33.

- ROGERS MCVAUGH, A.B., 1931; Ph.D., University of Pennsylvania, 1935. Instructor, University of Pennsylvania.
- HYMAN DIAMOND, A.B., 1931. (Special Fellowship awarded only for 1932-33.) Ph.D., Princeton University, 1935.

1933-34.

FRANK ELMER FISCHER, A.B., 1933; M.A., Princeton University, 1935.

1934-35.

RAYMOND M. IMMERWAHR, A.B., 1934; M.A., Northwestern University, 1935. Student. (Held by Alternate, Anna Janney DeArmond, A.B., 1932; A.M., Columbia University, 1934. Studying at Bryn Mawr College.)

1935-36.

MARTHA WILLARD, A.B., 1935. Studying at Columbia University.

HOLDERS OF FELLOWSHIPS

HOLDERS OF THE JOSHUA LIPPINCOTT FELLOWSHIP

1893-94.

THOMAS ATKINSON JENKINS, A.B., 1887; Ph.B., University of Pennsylvania, 1888; Ph.D., Johns Hopkins University, 1894; Litt.D., Swarthmore College, 1922; Professor of the History of the French Language, University of Chicago. Retired. Deceased.

BENJAMIN FRANKLIN BATTIN, A.B., 1892; studied in Berlin; Ph.D., Jena, 1900. Deceased.

1894-95.

DAVID BARKER RUSHMORE, B.S., 1894; M.E., Cornell University, 1895; C.E., Swarthmore, 1897; Sc.D., 1923. Member of Board of Managers, Swarthmore College. Consulting Engineer.

1895-96.

HOWARD WHITE, JR., B.S., 1895; M.S., University of Michigan, 1896; C.E., Swarthmore, 1900. Deceased.

1896-97; 1897-98.

JOHN W. GREGG, B.L., 1894; A.M., Cornell University, 1898; LL.B., George Washington University, 1905. Lawyer. Retired.

1898-99.

ELLWOOD COMLY PARRY, B.L., 1897; studied in Berlin; M.L., Swarthmore, 1900; Ph.D., University of Pennsylvania, 1903. Professor of German and French, Central High School, Philadelphia.

1899-1900; 1900-01.

JOHN EDWIN WELLS, B.L., 1896; M.L., 1899; A.M., Columbia, 1900; Ph.D., Yale University, 1915. Head of the Department of English, Connecticut College for Women.

1901-02.

MARY GRAY LEIPER, B.L., 1899; studied in Berlin.

1902-03.

BIRD THOMAS BALDWIN, B.S., 1900; A.M., Harvard University, 1903; Ph.D., Ibid., 1905. Deceased.

1903-04.

ALBERT COOK MYERS, B.L., 1898; M.L., 1901; studied at the Universities of Wisconsin and Harvard. Historical Writer.

1904-05.

MARION VIRGINIA (PEIRCE) FRANK, A.B., Swarthmore, 1903; A.M., University of Chicago, 1904; studied in Ecole des Hautes Etudes, Sorbonne, and Collège de France in Paris, and in the Libraries of Madrid.

1905-06.

LEWIS FUSSELL, B.S., 1902; M.S., 1903; E.E. and Ph.D., University of Wisconsin, 1907. Professor of Electrical Engineering, Swarthmore College. Deceased.

1906-07.

LOUIS NEWTON ROBINSON, A.B., 1905; Ph.D., Cornell University, 1911; studied at the Universities of Halle and Berlin, 1906-07; Fellow in Cornell University, 1907-08. Director, with Russell Sage Foundation, 1922-25. Chairman, Pennsylvania Commission on Penal Affairs.

1907-08.

SAMUEL COPELAND PALMER, A.B., 1895; A.M., 1907; A.M., Harvard University, 1909; Ph.D., *Ibid.*, 1912. Studied abroad 1927-28. Professor of Botany, Swarthmore College.

1908-09.

MARY ELIZA (NORTH) CHENOWETH, A.B., 1907; A.M., 1910; studied at Oxford University.

1909-10.

MARY TALBOT (JANNEY) COXE, A.B., 1906; studied at the University of Berlin.

1910-11.

SAMUEL COPELAND PALMER, A.B., 1895; A.M., 1907; A.M., Harvard University, 1909; Ph.D., *Ibid.*, 1912. Studied abroad 1927-28. Professor of Botany, Swarthmore College.

1911-12.

JOHN HIMES PITMAN, A.B., 1910; A.M., 1911; studied at the University of California. Associate Professor of Mathematics and Astronomy, Swarthmore College.

1912-13.

IOLA KAY EASTBURN, B.L., 1897; A.M., University of Pennsylvania, 1907; Ph.D., *Ibid.*, 1913; Professor of German, Brenau College, Gainesville, Ga., 1925-33. Head of Modern Language Department, Stetson University, DeLand, Fla., 1935-.

1913-14.

EDWIN ANGELL COTTRELL, A.B., 1907; A.M., Harvard University, 1913. Professor of Political Science, Leland Stanford Junior University.

1914-15.

FREDERICK MYERLE SIMONS, JR., A.B., 1909; A.M., 1912; studied at the University of Chicago. Deceased.

1915-16.

FRANK H. GRIFFIN, B.S., 1910; A.M., Columbia University, 1916. Technical Manager and Director, The Viscose Company, Marcus Hook, Pa.

1916-17.

RAYMOND T. BYE, A.B., 1914; A.M., Harvard University, 1915; Ph.D., University of Pennsylvania, 1918. Professor of Economics, University of Pennsylvania.

1917-18.

CHARLES J. DARLINGTON, A.B., 1915; A.M., 1916. Chief Supervisor of Semi-Works Operative Organic Chemistry Dept., E. I. du Pont de Nemours & Company.

1918-19.

JOHN E. ORCHARD, A.B., 1916; A.M., Harvard University, 1920; Ph.D., *Ibid.*, 1923. Associate Professor, Economic Geography, School of Business, Columbia University.

1919-20.

PAUL FLEMING GEMMILL, A.B., 1917; Ph.D., University of Pennsylvania, 1925. Professor of Economics, University of Pennsylvania.

1920-21.

JOSEPH EVANS SANDS, A.B., 1917; M.D., University of Pennsylvania, 1921. Physician.

1921-22.

DETLEV WULF BRONK, A.B., 1920; M.S., University of Michigan, 1922; Ph.D., *Ibid.*, 1925. Johnson Professor of Biophysics and Director of the Johnson Foundation for Medical Physics, University of Pennsylvania, School of Medicine.

1922-23.

DAVID MATHIAS DENNISON, A.B., 1921; A.M., University of Michigan, 1922;
 Ph.D., *Ibid.*, 1924. International Education Board Fellow, Copenhagen, Denmark, 1924-27. Associate Professor of Physics, University of Michigan.

1923-24.

WILLIAM MORSE BLAISDELL, A.B., 1921; A.M., University of Pennsylvania, 1926; Ph.D., University of Pennsylvania, 1932. Studied in Paris. Instructor in Economics, Swarthmore College, 1928-29. Research Fellow of the Institute of Economics of the Brookings Institution, Washington, D. C., 1929-31. Professor of Business Administration, Temple University.

1924-25.

KATHARINE DENWORTH, A.B., 1914; M.A., Columbia University, 1921; Ph.D., *Ibid.*, 1927. President, Bradford Junior College, Bradford, Mass.

1925-26.

GEORGE PASSMORE HAYES, A.B., 1918; A.M., Harvard University, 1920; Ph.D., *Ibid.*, 1927. Head of Department of English, Agnes Scott College, Decatur, Ga.

1926-27.

MARVIN YARD BURR, A.B., 1925; A.M., Columbia University, 1927; Ph.D., *Ibid.*, 1930. Deceased.

1927-28.

DOROTHY FLORENCE (TROY) YOUNG, A.B., 1926; M.A., Columbia University, 1928. Instructor in English, Swarthmore College, 1928-29.

1928-29.

DOROTHEA A. (KERN) DEVEREUX, A.B., 1927; A.M., 1928. Studied at the University of Chicago.

1929-30.

ELIZABETH (HORMANN) STRODACH, A.B., 1927; M.A., University of Pennsylvania, February, 1930.

1930-31.

- THOMAS M. BROWN, A.B., 1929; M.D., Johns Hopkins Medical School, 1933. Physician.
- WINONA (VON AMMON) MACCALMONT, A.B., 1929; M.S., University of Pennsylvania, 1930. Associate in Physiology and Instructor in Pharmacology, Woman's Medical College of Pennsylvania.

1931-32.

MARGARET GURNEY, A.B., 1930; M.A., Brown University, 1931; Ph.D., Ibid., 1934.

1932-33.

JAMES A. MICHENER, A.B., 1929; studied at the University of Aberdeen, 1931-33. Teaching at George School.

1933-34.

HELEN STAFFORD, A.B., 1930; A.M., Bryn Mawr College, 1931; Ph.D., *Ibid.*, 1935. Holder of Bryn Mawr European Fellowship, 1932-33; Teacher at the Ethel Walker School, Simsbury, Connecticut.

1934-35.

- RUTH (COOK) STILSON, A.B., 1933; M.A., Radcliffe College, 1934; studying at Radcliffe College.
- WILLIAM EATON, A.B., 1932. (Special Fellowship awarded only for 1934-35) Ph.D., Yale University, 1935. Physicist, Eastman Kodak Company.

1935-36.

WILL T. JONES, A.B., 1931. Rhodes Scholar, Oxford, England, 1931-34. Studying at Princeton University.

HOLDERS OF THE JOHN LOCKWOOD MEMORIAL FELLOWSHIP

1910-11.

EDWIN CARLETON MACDOWELL, A.B., 1909; M.S., Harvard University, 1911; Sc.D., *Ibid.*, 1912. Investigator, Cold Spring Harbor.

1911-12.

HENRY FERRIS PRICE, A.B., 1906; University of Pennsylvania, 1913; Ph.D., *Ibid.*, 1915. Professor of Mathematics, Pacific University, Forest Grove, Oregon.

1912-13.

WALTER FRANK RITTMAN, A.B., 1908; A.M., 1909; M.E., 1911; Ch.E., 1917; Ph.D., Columbia University, 1914. Consulting Chemical Engineer, U. S. Department of Agriculture. Professor of Engineering, Carnegie Institute of Technology.

1913-14.

HELEN PRICE, A.B., 1907; Ph.D., University of Pennsylvania, 1915. Head of Latin and Greek Department, Meredith College, Raleigh, N. C.

1914-15.

HELEN HEED, A.B., 1905; A.M., Radcliffe College, 1915. Studied at Oxford, University, 1925-26. Head of Department of English, High School, Pleasantville, N. Y.

1915-16.

FRANCES DARLINGTON, A.B., 1896; A.M., University of Pennsylvania, 1916. Teacher.

1916-17.

RACHEL KNIGHT, B.L., 1898; A.M., 1909; Ph.D., University of Iowa, 1919. Deceased.

1917-18.

RALPH LINTON, A.B., 1915; A.M., University of Pennsylvania, 1916; Ph.D., Harvard University, 1925. Professor of Anthropology, University of Wisconsin.

1918-19.

WALTER HARRISON MOHR, A.B., 1914; A.M., University of Pennsylvania, 1921; Ph.D., *Ibid.*, February, 1931. Teacher of History, George School.

1919-20.

ESTHER E. BALDWIN, A.B., 1909; A.M., Columbia University, 1913. Teacher of French and English, South Philadelphia High School.

1920-21.

GEORGE PASSMORE HAYES, A.B., 1918; A.M., Harvard University, 1920; Ph.D., *Ibid.*, 1927. Acting Professor of English, Robert College, Constantinople, 1921-25. Professor of English, Agnes Scott College, Decatur, Ga. Head of Department.

1921-22.

FRANK WHITSON FETTER, A.B., 1920; A.M., Princeton University, 1922; A.M., Harvard University, 1924; Ph.D., Princeton University, 1926. Assistant Professor of Economics, Princeton University, 1927-1934; Associate Professor of Economics, Haverford College.

1922-23.

MARGARET (POWELL) AITKEN, A.B., 1919; A.M., 1921.

1923-24.

WALTER HALSEY ABELL, A.B., 1920; A.M., 1924; Professor of Art, Acadia University, Wolfville, Nova Scotia, Canada.

1924-25.

EDGAR Z. PALMER, A.B., 1919; Ph.D., University of Wisconsin, 1928. Associate Professor in Economics, College of Commerce, University of Kentucky.

1925-26.

EMMA T. R. (WILLIAMS) VYSSOTSKY, A.B., 1916; Ph.D., Radcliffe College, 1929. Studied at University of Chicago, 1925-26. Studied at Harvard University Observatory, 1927-29. Research Fellow, Leander-McCormick Observatory. Instructor in Astronomy, University of Virginia.

1926-27.

MARGARET LYLE (WALTON) MAYALL, A.B., 1925; M.A., Radcliffe College, 1928. Research Assistant at Harvard Observatory.

1927-28.

ALICE P. GARWOOD, A.B., 1913. "Certificate of Play Production," Department of Drama, School of Fine Arts, Yale University, 1928. Dramatic Director.

1928-29.

JAMES ROLAND PENNOCK, A.B., 1927; A.M., Harvard University, 1928; Ph.D., Harvard University, 1932. Assistant Professor in Political Science, Swarthmore College.

1929-30.

WALTER B. KEIGHTON, JR., A.B., 1923; Ph.D., Princeton University, 1933. Instructor, Department of Chemistry, Swarthmore College.

1930-31.

C. LAWRENCE HAINES, B.S., 1928. Studied at Johns Hopkins University, 1930-1933; Research Volunteer, Bartol Foundation, Swarthmore.

1931-32.

KATHARINE SMEDLEY, A.B., 1930; M.A., University of North Carolina, 1932. Secretary, office of New York Yearly Meeting, Society of Friends.

1932-33.

RICHARD ABELL, A.B., 1926; M.A., University of Pennsylvania, 1930; Ph.D., *Ibid.*, 1934. Instructor in Anatomy, School of Medicine, University of Pennsylvania.

1933-34.

- THOMAS SEAL CHAMBERS, A.B., 1931; A.M., Harvard University, 1933. Junior[®] Prize Fellow, Harvard University, since 1933.
- (Held by Alternate, Lewis FUSSELL, Jr., B.S., 1931; M.S., Massachusetts Institute of Technology, 1932; studying at Massachusetts Institute of Technology.)

1934-35.

RICHARD E. PASSMORE, A.B., 1933; studying at Columbia University.

1935-36.

CHARLES COALE PRICE, III., A.B., 1934. Studying at Harvard University.

HOLDERS OF FELLOWSHIPS

HOLDERS OF THE LUCRETIA MOTT FELLOWSHIP

1895-96.

HELEN BRIGHT (SMITH) BRINTON, A.B., 1895; studied at Oxford University; A.M., Swarthmore, 1899.

1896-97.

MARY STONE MCDOWELL, A.B., 1896; studied at Oxford University; A.M., Columbia University, 1903. Teacher, Lincoln High School, Brooklyn, N. Y.

1897-98.

SARAH (BANCROFT) CLARK, B.S., 1897; studied at Newnham College, Cambridge.

1898-99.

EDNA HARRIET RICHARDS, B.L., 1898; studied in Berlin; A.M., Columbia University, 1904. Fellow and Instructor, University of Wisconsin, 1921-22. Teacher of German in High School, Youngstown, Ohio.

1899-1900.

MARY ELIZABETH SEAMAN, A.B., 1899; studied at Newnham College, Cambridge; A.M., Adelphia College, 1905. Deceased.

1900-01.

ANNA GILLINGHAM, A.B., 1900; A.B., Radcliffe College, 1901; A.M., Columbia University, 1910. Teacher in Ethical Culture School, New York, N.Y.

1901-02.

LILLIAN WINIFRED (ROGERS) ILLMER, A.B., 1901; studied in Berlin.

1902-03.

MARGARET HOOD (TAYLOR) (SIMMONS) TAYLOR, B.L., 1902; studied at Berlin University.

1903-04.

ANNIE Ross, A.B., 1903; Ph.M., University of Chicago, 1904. Chairman of Modern Language Department, High School, Flushing, L. I., N. Y.

1904-05.

CHARLOTTE RITZEMA BOGART, A.B., 1904; A.M., Columbia University, 1905.

1905-06.

ELIZABETH HALL, A.B., 1905; A.M., Columbia University, 1906. Teacher of English, Media High School.

1906-07.

BERTHA CAROLINE PEIRCE, A.B., 1906; A.M., Cornell University, 1907; Head of Department of Latin and Greek, Beaver College, Jenkintown, Pa.

1907-08.

JEANNETTE (CURTIS) CONS, A.B., 1907; A.M., 1909; studied at the University of Berlin.

1908-09.

ELIZABETH SIKES (JAMES) NORTON, A.B., 1908; studied at the University of Berlin; A.M., University of Pennsylvania, 1912; Ph.D., *Ibid.*, 1914.

1909-10.

HELEN HARRIET PORTERFIELD, A.B., 1909; studied at the University of Chicago.

1910-11.

JEAN HAMILTON (WALKER) CREIGHTON, A.B., 1910; studied at the University of Chicago.

1911-12.

ANNA HEYDT, A.B., 1911; A.M., Radcliffe College, 1912. Teacher of Latin and French, State Teachers' College, Kutztown, Pa.

1912-13.

CAROLINE HALLOWELL (SMEDLEY) COLBURN, A.B., 1912; A.M., 1918; studied at the University of California.

1913-14.

ESTHER (MIDLER) SIMBERG, A.B., 1913; A.M., Columbia University, 1929; studied at the University of Berlin. Social Worker.

1914-15.

MARIE SAFFORD (BENDER) DARLINGTON, A.B., 1914; A.M., University of Chicago, 1916. Deceased.

1915-16.

REBA MAHAN (CAMP) HODGE, A.B., 1915; A.M., Radcliffe College, 1916.

1916-17.

ANNA M. MICHENER, A.B., 1916; A.M., Columbia University, 1917; Ph.D., Ibid., 1921; Economic Research.

1917-18.

HILDA A. (LANG) DENWORTH, A.B., 1917; studied at the University of Wisconsin; A.M., University of Pennsylvania, 1921.

1918-19.

EDITH W. (MENDENHALL) HAYES, A.B., 1918; A.M., Columbia University, 1919.

1919-20.

GLADYS AMANDA REICHARD, A.B., 1919; A.M., Columbia University, 1920; Ph.D., Columbia University, 1925; Research Fellow in Anthropology, University of California, 1922-23; Holder of John Simon Guggenheim Fellowship for 1926-27; studied in Hamburg. Assistant Professor Anthropology, Barnard College, Columbia University.

1920-21.

HENRIETTA ALBERT SMITH, A.B., 1920. (Resigned.)

1921-22.

ALINE MATHIESON (WOODROW) ROBERTSON, A.B., 1921; studied at the University of Glasgow.

1922-23.

HENRIETTA IDA (KELLER) HOWELL, A.B., 1922; A.M., Radcliffe College, 1923.

1923-24.

GERTRUDE MALZ, A.B., 1923; A.M., University of Wisconsin, 1924; Ph.D., *Ibid.*, 1928; studied at American School of Classical Studies, Athens, 1929-30. Instructor in Greek and Latin, Sweet Briar College, Sweet Briar, Va.

1924-25.

GERTRUDE PAULA (KNAPP) RAWSON, A.B., 1924; studied at Somerville College, Oxford.

1925-26.

MARGARET (PITKIN) BAINBRIDGE, A.B., 1925; Ph.D., University of Chicago, 1928. Assistant Professor of Romance Languages, Swarthmore College, 1928-33.

1926-27.

ALICE CAROLYN (PAXTON) BRAINERD, A.B., 1926; A.M., Radcliffe College, 1928.

1927-28.

CECILE (BROCHEREUX) JARVIS, A.B., 1927; M.A., University of Pennsylvania, 1928. Teaching French, Haverford School.

1928-29.

GERTRUDE (SANDERS) FRIEDMAN, A.B., 1928; Ph.D., University of Pennsylvania, 1932.

1929-30.

MARGARET (WORTH) CROWTHER, A.B., 1929; Law Student, Yale University, 1929-30.

1930-31.

ELEANOR FLEXNER, A.B., 1930; studied at Somerville College, Oxford.

1931-32.

BEATRICE F. BEACH, A.B., 1931; M.A., Yale Dramatic School, 1934. Director of Dramatics, Swarthmore College.

1932-33.

- FRANCES REINHOLD, A.B., 1932; (Resigned). Assistant in Political Science, Swarthmore College.
- *EDNA N. PUSEY, A.B., 1932; M.A., University of Pennsylvania, 1933. Teacher of French and History, Avondale, Pa.
- *ELEANOR Y. PUSEY, A.B., 1932; M.A., University of Pennsylvania, 1933. Teacher of French, Haddonfield, N. J.

*Joint Alternates.

1933-34.

RUTH ERNESTINE (COOK) STILSON, A.B., 1933; M.A., Radcliffe College 1934; studying at Radcliffe College.

1934-35.

VIRGINIA HALL SUTTON, A.B., 1934; studying at the University of Chicago.

1935-36.

ELIZABETH LANE, A.M., 1935. Studying at Columbia University.

SIGMA XI FELLOWSHIP

1934-35.

HELEN LOUISE WEST, A.B., 1932; M.A., Mt. Holyoke College, 1934. Holder of Teaching Fellowship in Chemistry at the University of California, 1935-36.

HOLDERS OF THE MARTHA E. TYSON FELLOWSHIP

1914-15.

HELEN PRICE, A.B., 1907; Ph.D., University of Pennsylvania, 1915. Head of Latin and Greek Department, Meredith College, Raleigh, N. C.

1915-16.

ANNE SHOEMAKER (HAINES) MARTIN, A.B., 1912; A.M., University of Wisconsin, 1916.

1916-17.

KATHERINE PROCTER (GREEN) VINCENT, A.B., 1907; A.M., Columbia University, 1917. Teacher of Latin in Newton High School, New York, N.Y.

1917-18.

CHARLOTTE (BREWSTER) JORDAN, B.L., 1882; M.L., 1886; studied in Madrid. Translator and writer.

1918-19.

EDNA ANNA TYSON, A.B., 1909; A.M., Columbia University, 1919. Teacher of English in High School, Newark, N. J.

1919-20.

DOROTHEA (GILLETTE) MURRAY, A.B., 1914; A.M., Columbia University, 1920.

1920-21.

BEULAH (DARLINGTON) PRATT, A.B., 1890; A.M., Teachers' College, Columbia University, 1922.

1921-22.

RHODA A. LIPPINCOTT, A.B., 1917; A.M., Columbia University, 1922. Teacher of French, Morristown, N. J., High School.

1922-23.

GRACE COCHRAN, A.B., 1917; Ph.D., University of Iowa, 1930. Student, Certificat d' Aptitude d' enseigner le français à l'étranger, Sorbonne, France, 1922. Assistant Professor of Romance Languages, State University of Iowa, Iowa City, Iowa.

1923-24.

MILDRED E. (WILLARD) FRY, A.B., 1920; A.M., University of Pennsylvania, 1924.

1924-25.

CAROLINE E. MYRICK, A.B., 1914; A.M., Radcliffe College, 1916.

1925-26.

HELEN E. HOWARTH, A.B., 1920; M.A., Smith College, 1926. Research Associate, Harvard University Observatory. Research, Physics Laboratory, American Optical Co.

1926-27.

DOROTHY (PLACK) PUCTA, A.B., 1911; M.A., University of Pennsylvania, 1927.

1927-28.

EMMA T. R. (WILLIAMS) VYSSOTSKY, A.B., 1916; Ph.D., Radcliffe College, 1929. Student, Harvard University Observatory, 1927-29. Research Fellow, Leander-McCormick Observatory. Instructor in Astronomy, University of Virginia.

1928-29.

EDNA JEAN (PROSSER) WEESTER, A.B., 1926; M.A., University of Wisconsin, 1929.

1929-30.

GERTRUDE MALZ, A.B., 1923; A.M., University of Wisconsin, 1924; Ph.D., *Ibid.*, 1928. Studied at the American School of Classical Studies, Athens, 1929-30. Instructor in Greek and Latin, Sweet Briar College, Sweet Briar, Va.

1930-31.

MARY ELIZABETH SHINN, A.B., 1924; M.A., Swarthmore College, 1931. Teaching Latin in the Swedesboro High School.

1931-32.

GERTRUDE (GILMORE) LAFORE, A.B., 1928; M.A., Columbia University, 1932. Teaching at Bennington College, 1932-34.

1933-34.

JOSEPHINE ELLIOTTE WILSON, A.B., 1915; M.A., Teachers' College, Columbia University, 1934. Instructor of English, State Teachers' College, West Chester, Pa.

1935-36.

DOROTHY E. C. DITTER, A.B., 1930; studying at the University of Pennsylvania.

HOLDERS OF THE IVY MEDAL*

- 1898. Anna Belle Eisenhower, A.B., 1899; A.B., Radcliffe College, 1900; A.M., *Ibid.*, 1907.
- 1899. MARY G. LEIPER, B.L., 1899.
- 1900. MARY S. HAVILAND, B.L., 1900; A.B., Radcliffe College, 1901. Deceased.
- 1901. GEORGE A. SEAMAN, A.B., 1901. Deceased.
- 1902. ELLIOTT RICHARDSON, B.S., 1902; C.E., 1905.
- 1903. SAMUEL T. STEWART, A.B., 1903.
- 1904. HALLIDAY R. JACKSON, A.B., 1904; A.M., University of Pennsylvania, 1933.
- 1905. LOUIS N. ROBINSON, A.B., 1905; Ph.D., Cornell University, 1911.
- 1906. T. H. DUDLEY PERKINS, A.B., 1906. Deceased.
- 1907. Amos J. PEASLEE, A.B., 1907; LL.B., Columbia University, 1911.
- 1908. HERMAN PRITCHARD, B.S., 1908; A.M., 1911.
- 1909. WALTER F. RITTMAN, A.B., 1908; A.M., 1909; M.E., 1911; Ch.E., 1917; Ph.D., Columbia University, 1914.
- 1910. JOHN E. JOHNSON, B.S., 1910.
- 1911. JOSEPH H. WILLITS, A.B., 1911; A.M., 1912; Ph.D., University of Pennsylvania, 1916.
- 1912. HERMAN ELLIOTT WELLS, B.S., 1912.
- 1913. HENRY LEE MESSNER, A.B., 1913.
- 1914. ALBERT ROY OGDEN, A.B., 1914. Deceased.
- 1915. THOMAS BAYARD MCCABE, A.B., 1915.
- 1916. HUGH FREDERICK DENWORTH, A.B., 1916; A.M., University of Pennsylvania, 1918.
- 1917. WILLIAM WEST TOMLINSON, A.B., 1917.
- 1918. FREDERICK STOCKHAM DONNELLY, A.B., 1918. Deceased.
- 1919. CHARLES MANLY HOWELL, A.B., 1919.
- 1920. DETLEV WULF BRONK, A.B., 1920; M.S., University of Michigan, 1922; Ph.D., *Ibid.*, 1926.
- 1921. ALAN C. VALENTINE, A.B., 1921; A.M., University of Pennsylvania, 1922. Rhodes Scholar, B.A. (Honors), Oxford University, 1925. M.A., Oxford, 1929.
- 1922. RICHARD WILLIAM SLOCUM, A.B., 1922; LL.B., Harvard University, 1925.
- 1923. ARTHUR JOY RAWSON, A.B., 1923; M.E., 1930.
- 1924. RICHMOND PEARSON MILLER, A.B., 1924.
- 1925. MARVIN YARD BURR, A.B., 1925; A.M., Columbia University, 1927; Ph.D., *Ibid.*, 1930. Deceased.
- 1926. RICHARD MELVILLE PERDEW, A.B., 1926.
- 1927. JAMES ROLAND PENNOCK, A.B., 1927; A.M., Harvard University, 1928; Ph.D., 1932.
- 1928. DOUGLASS WINNETT ORR, A.B., 1928; M.B. and M.S., Northwestern University Medical School, 1934.
- 1929. THOMAS MCPHERSON BROWN, A.B., 1929; M.D., 1933, Johns Hopkins Medical School.

*The terms of the award of this medal are found on p. 33

OAK LEAF MEDAL

- 1930. RICHARD MORGAN KAIN, A.B., 1930; A.M., University of Chicago, 1931; Ph.D., 1934.
- 1931. SAMUEL MAHON, A.B., 1931.
- 1932. EDWIN SCOTT LUTTON, A.B., 1932; Ph.D., Yale University, 1935.
- 1933. FRANKLIN PORTER, A.B., 1933.
- 1934. FRANK C. PIERSON, A.B., 1934.
- 1935. VAN DUSEN KENNEDY, A.B., 1935.

HOLDERS OF THE OAK LEAF MEDAL*

1922. BARBARA (MANLEY) PHILIPS, A.B., 1922.

1923. ISABELLE SHAW (FUSSELL) EWING, A.B., 1923.

1924. GERTRUDE PAULA (KNAPP) RAWSON, A.B., 1924.

1925. INEZ VICTORIA (COULTER) RUSSELL, A.B., 1925.

- 1926. LYDIA WILLIAMS (ROBERTS) DUNHAM, A.B., 1926.
- 1927. KATHERINE JOSEPHINE (SNYDER) SASSÉ, A.B., 1927.
- 1928. MARGARET (SOMERVILLE) MCINERNEY, A.B., 1928.
- 1929. HELEN CAROLINE (ROBISON) BISHOP. A.B., 1929.
- 1930. ELIZABETH YARD, A.B., 1930.
- 1931. CAROLINE ALBERTA (JACKSON) RUSHMORE, A.B., 1931.

1932. FLORENCE ELIZABETH (WILLIAMS) POTTS, A.B., 1932.

1933. BABETTE SCHILLER, A.B., 1933.

- 1934. RUTH ELEANOR KEWLEY, A.B., 1934.
- 1935. ELIZABETH MARY BLAIR, A.B., 1935.

*The terms of the award of this medal are found on p. 34.

DEGREES CONFERRED IN 1935

BACHELOR OF ARTS IN THE HONORS COURSE

In the Division of the Humanities

ELIZABETH MARY BLAIR	ELIZABETH BOBETTE LANE
(High Honors)	(Highest Honors)
MYRON LEWIS BOARDMAN (Honors)	JOHN WALLACE LAWS (Honors)
ELIZABETH WEBB CHANEY (Honors)	EDITH MAY LENT (High Honors)
ROSEMARY COWDEN (High Honors)	MARY ISABEL SCHORER (Honors)
MARY ELLEN DOBBINS (Honors)	ELIZABETH SMEDLEY (High Honors)
MIRIAM LINDLEY GRIEST (Honors)	MARGUERITE C. TAMBLYN
MARGARET BARCLAY HARDY	(High Honors)
(High Honors)	ELIZABETH VAN ANDA THOMSON
DAVID HEILIG (Honors)	(Honors)
ELIZABETH CRANSTON HODGES	KATE FANNING WALKER (Honors)
(High Honors)	MARTHA ELLEN WILLARD
DOROTHY ALDEN KOCH	(Highest Honors)
(Highest Honors)	

In the Division of	the Social Sciences
LYDIA JEANNE BALLARD (High Honors)	WILLIAM H. DUN
A. SYDNEY BLATT (Honors)	VAN DUSEN KENN
THOMAS RICHARD BUTLER (Honors)	· · · ·
JANE FRANCES COLE (Honors)	GEORGE AUGUST D
GEORGE PEDDY CUTTINO	
(Highest Honors)	JOHN HARMON ND
SHIRLEY DAVIS (Honors)	MARGARET FELTON
JAMES CHRISTIAN HILL	JAMES NELSON RIG
(High Honors)	JANET GRISWOLD

WILLIAM H. DUNWOODY HOOD (Honors) VAN DUSEN KENNEDY (High Honors) GEORGE AUGUST DUDLEY MULLER (Honors) JOHN HARMON NIXON (High Honors) MARGARET FELTON PETERS (Honors) JAMES NELSON RICE, III (Honors) JANET GRISWOLD SMITH (Honors)

In the Division of Mathematics and the Natural Sciences RICHARD GLEIM BARKER BARBARA IVINS (Highest Honors) (Highest Honors) ROBERT C. MITTERLING (Honors) DAVID EDWARD DAVIS (Honors) JEAN BROSIUS WALTON JAMES CANFIELD FISHER (Honors) FRITZ JOACHIM WEYL (Highest Honors)

BACHELOR OF SCIENCE IN THE HONORS COURSE

In Mechanical Engineering

H. KIMBLE HICKS (Honors) JOHN GRAY MOXEY, JR. (Honors) COURTLAND DAVIS PERKINS (Honors)

BACHELOR OF ARTS IN THE GENERAL COURSE

With the Major in Chemistry

DANIEL MACE GOWING

MATTHEW DUPONT MASON, JR.

DEGREES CONFERRED IN 1935

With the Major in Economics

LIONEL DUFFELL BRIGHT CAROLINE BUTLER SAMUEL HAAG CASSEL, JR. MARIAN YOUNG DAVIS ROBERT BARTLETT DIXON ELIZABETH CAROLINE DUNHAM FLORENCE EUGENIE HOLT ROBERT BEATTIE LEWIS CRAIG MORGAN MCCABE (as of the Class of 1934) WILLIAM JAMES MERCER MARCY FRANK RODERICK WATSON SNYDER, JR. THOMAS FRANCIS SPENCER JAMES ALEXANDER TURNER, JR. CYNTHIA WENTWORTH

With the Major in English

WILLIAM ROGER COOPER ETHEL REBECCA COPPOCK SARAH REBECCA CROLL MARGARET BLEECKER DESPARD GERRY JANE DUDLEY FRANCES CAROLYN FETTER DOROTHY BOWMAN GLENN PAUL ALDEN HADLEY EDITH ARMASON HARRISON THEODORE HERMAN DOROTHY LEWIS HIRST EMILY DEVEREUX JARRATT BETTY JEFFRIES AGNES METCALFE BETTY BEVAN OWENS SARAH COOK SMITH SUE LEGGETT THOMAS ELIZABETH WOODERIDGE

With the Major in Fine Arts Georgia Bernice Heathcote Doris May Sonneborn

> With the Major in French IEAN KINGSBURY

MARCIA LOUISE HADZSITS THALIA JEAN HAMMER

HARRY R. BOMBERGER

J. RICHARD REID

With the Major in German FRANCES BURHOP ELIZABETH PHELPS SOULE

With the Major in Latin Martha Jane Spencer

With the Major in Mathematics HAEL EDITH JOHNSON SERRILL

EMMA MAY MICHAEL

With the Major in Physics JAMES REID ALBURGER

With the Major in Political Science

CLARENCE DESHONG BELL ANNE FLORENCE BRANSON KENNETH WILLIAM HECHLER LYDIA EVANS HIGHLEY Doris Elinor Lindeman H. Frank Pettit, II Gilbert Walter Roberts Sylvia Linville Way

With the Major in Psychology JANET H. VISKNISKKI

JANE BUGESS SILL

With the Major in Zoölogy

DONALD LOCKHART GLENN GERALD G. GREENE DINO ENEA PETECH MCCURDY HAZEL MARY MORLAND

With the Major in Mechanical Engineering WILLIAM WALTER TIMMIS (as of the Class of 1917)

BACHELOR OF SCIENCE IN THE GENERAL COURSE

 With the Major in Civil Engineering

 WILLIAM EDWIN ADAMS
 HERBERT BEAUCHAMP HARLOW

With the Major in Electrical Engineering STUART WILDER, JR.

With the Major in Mechanical Engineering Edson S. HARRIS, JR.

CIVIL ENGINEER

EDWIN R. ALBERTSON, A.B., Swarthmore College, 1921 FRED J. POWELL, B.S., Swarthmore College, 1929
INDEX

Absences from Examination, 46 Administrative Officers, 14 Admission, Requirements for, 35 Scholastic Aptitude Test, 35, 38 Subject Requirements, 36 Admission to Honors Work, 44 Advanced Standing, 38 Alumnæ Scholarship, 30 Alumni Field, 18 Arthur Hoyt Scott Foundation, 24 Astronomical Observatories, 17 Astronomy and Mathematics, Courses in, Athletic Associations, 20 ATHLETIC FIELDS, 18 Alumni Field, 18 Cunningham Field, 18 Swarthmore Field, 18 Attendance at Classes and Collection, 46 Attendance at Meeting or Church, 19 Bachelor of Arts Degree, 48 Bachelor of Science Degree, 48 Bartol Foundation Building, 18 Beardsley Hall, 18 Benjamin West House, 19 Benjamin West Society, 22 BOARD OF MANAGERS, 6 Officers and Committees, 7 Bond Memorial, 18 Botany, Geology, Courses in, 51 BUILDINGS AND GROUNDS, 16 Alumni Field, 18 Astronomical Observatories, 17 Bartol Foundation Building, 18 Beardsley Hall, 18 Benjamin West House, 19 Bond Memorial, 18 Chemistry, Hall of, 17 Cloisters, The, 18 Cunningham Field, 18 Field House, 19 Hall Gymnasium (for Men), 18 Hicks Hall, 18 Isaac H. Clothier Memorial, 16 Library Building, 17 Martin, Edward, Biological Laboratory, 19 Meeting House, 19 Parrish Hall, 16 Science Hall, 17 Scott, Arthur Hoyt, Horticultural Foundation, 18

Swimming Pools, 18 Wharton Hall, 17 Woolman House, 17 Worth Hall, 17 Bulletin, Swarthmore College, 22 CALENDAR, COLLEGE, 3 Lunar, 2 Cercle Français, 20 Certificate, Admission by, 35 Chemistry Club, 20 Chemistry, Courses in, 53 Chemistry, Hall of, 17 Classical Club, 20 Classics, Courses in, 57 Cloisters, The, 18 Clothier Memorial, 16 Collection, 19 Collection Attendance, 46 College Entrance Examination Board, 37 College Publications, 22 Committees of the Board of Managers, 7 Committees of the Faculty, 13 Conditions, Removal of, 45 Contents, Table of, 4 Cooper, Sarah Kaighn, Scholarship, 26 Cooper, William J., Foundation, 24 Co-operation with Nearby Institutions, 46 Corporation, 6 Course Advisers, 44 COURSES OF INSTRUCTION: Botany, 51 Chemistry, 53 Classics, 57 Economics, 60 Engineering, 63 English, 69 Fine Arts, 72 German, 73 History and International Relations, 76 Mathematics and Astronomy, 79 Music, 85 Philosophy and Religion, 86

Buildings and Grounds-Continued

Sproul Observatory, 17

Swarthmore Field, 18

Students' Observatory, 17

Women), 18

Senior Dormitories for Men, 17

Somerville Hall (Gymnasium for

Physical Education for Men, 89 Physical Education for Women, 91

141

SWARTHMORE COLLEGE BULLETIN

Courses of Instruction—Continued Physics, 94 Political Science, 96 Psychology and Education, 99 Romance Languages, 102 Zoölogy, 105 Cunningham Field, 18 Curators of Biddle Memorial Library, 15

Debate Board, 20 Prizes, 20 Delta Sigma Rho, 20 Definition of Entrance Requirements, 37 DEGREES, 48 Advanced Engineering, 48 Bachelor of Arts, 48 Bachelor of Science, 48 Master of Arts, 48 Master of Science, 48 Degrees Conferred in 1935, 138 Dining Room Rates for Faculty, 49 Divisions and Departments, 12 DORMITORIES, 16 Parrish Hall, 16 Senior Dormitories for Men, 17 Wharton Hall, 17 Woolman House, 17 Worth Hall, 17

Economics, Courses in, 60 Education, Physical, 89, 91 Engineering, Courses in, 63 Engineering, Degrees in, 48 Engineering, Division of, 12, 44 Engineering Shops, 18 Engineers' Club, 20 English, Courses in, 69 Entrance Requirements, 35 Examinations, College Board, 37 Exclusion from College, 47 Expenses, 49

Faculty, 8 Fees, Tuition, Laboratory, etc., 50 FELLOWSHIPS AND SCHOLARSHIPS, 24 Hannah A. Leedom, 24 Holders of Fellowships, 123 John Lockwood Memorial, 25 Joshua Lippincott Fellowship, 24 Lucretia Mott Fellowship, 24 Martha E. Tyson, 25 Open Scholarships for Men, 28 Open Scholarships for Women, 29 Scholarships, List of, 25 Sigma Xi Research Fellowship, 25 T. H. Dudley Perkins Memorial, 27 Working Scholarships, 33 Field House, 19 Fine Arts, Courses in, 72 Foreign Language Requirements, 40 French, Courses in, 102 Friends Historical Library, 17, 23 Friends' Meeting, 19 General Courses, 40 Geographical Distribution of Students, 122 German Club, 20 German Language and Literature, Courses in, 73 Gillingham, Joseph E., Fund, 26 Grades, System of, 45 Graduation, Requirements for, 39 Greek Language and Literature, Courses in, 57 Halcyon, The, 22 Hall Gymnasium, 18 Hicks Hall, 18 History and International Relations, Courses in, 76 Honorary Scholarship Societies, 21 HONORS WORK, 41 Admission to, 44 Combinations of Majors and Minors, 43 Examiners, 1935, 42 General Statement, 41 Offered by the Departments of: Botany, 52 Chemistry, 54 Classics, 59 Economics, 62 Engineering, 68 English, 70 Fine Arts, 72 French, 103 German, 75 History, 77 Mathematics and Astronomy, 82 Philosophy, 87 Physics, 94 Political Science, 97 Psychology, 101 Zoölogy, 106 Humanities, Division of, 12, 43

Infirmary Regulations, 47 Italian, Courses in, 103 Ivy Medal, 33 Holders of, 136 Regulations of Award, 33

Johnson Fund, George K. and Sallie K., 26

142

Kappa Alpha Theta Scholarship Fund, 26 Laboratory Fees, 50 Latin Language and Literature, Courses in. 57 Law Course, 61 Leedom Fellowship, Hannah A., 24 Holders of, 123 LIBRARIES, 17, 22 Friends Historical, 17, 23 Library Building, 17 Lippincott Fellowship, The Joshua, 24 Holders of, 125 Little Theatre Club, 20 Loans, 34 Location and Foundation of the College, τ6 Lockwood Memorial Fellowship, John, 25 Holders of, 128 Maintenance of Automobiles, 47 Major Subjects, 40, 43 MANAGERS, BOARD OF, 6 Officers and Committees, 7 Manuscript, 22 Map of College Grounds, Facing Page 2 Martin, Edward, Biological Laboratory, IQ Master of Arts Degree, 48 Master of Science Degree, 48 Mathematics and Astronomy, Courses, 79 Mathematics and Natural Sciences, Division of, 12, 44 Medals, 33 Meeting House, 19 Miller, James E., Scholarship, 27 Minor Subjects, 40, 43 Mott Fellowship, Lucretia, 25 Holders of, 131 Music, 85 Musical Clubs, 20

Newton, A. Edward, Library Prize, 34

Oak Leaf Medal, 33 Holders of, 137 Observatories, Astronomical, 17 Open Scholarships for Men, 28 Open Scholarships for Women, 29

Paiste Fund, Harriet, 27 Parrish Hall, 16 Perkins, T. H. Dudley, Memorial Scholarship, 27 Phi Beta Kappa, 21 Philosophy and Religion, Courses in, 86 Philosophy Club, 20 Phoenix, The, 22 Physical Education of Men, 89 Physical Education of Women, 91 Physics, Courses in, 94 Political Science, Courses in, 96 Pre-Medical Work, 106 President's House, 19 Preston Scholarship Fund, Mary Coates, 27 Prizes, 34 Psychology and Education, Courses in, 99 PUBLICATIONS, COLLEGE, 22 Bulletin, Swarthmore College, 22 Halcyon, 22 Manuscript, 22 Phoenix, 22 Religion and Philosophy, Courses in, 86 Religious Exercises, 19 Requirement of Vaccination, 47 Requirements for Admission, 35 Requirements for Graduation, 39 Work of First Two Years, 39 Work of Last Two Years, 40 Romance Languages, Courses in, 102 Scholarships, List of, 25 Scholastic Aptitude Test, 35, 38 Science Hall, 17 Senior Dormitories for Men, 17 Serrill Scholarship, Wm. G. and Mary N., 27 Shoemaker Scholarship, Annie, 28 Sicard, Katharine B., Prize, 34 Sigma Tau, 21 Sigma Xi, 21 Sigma Xi Fellowship, 25 Holder of, 134 Social Sciences, Division of, 12, 43 Somerville Forum, 20 Somerville Hall (Gymnasium for Women), 18 Spanish, Courses in, 103 Sproul Observatory, 17 Squier Scholarship, Helen E. W., 28 States, Summary of Students by, 122 Students, 1935-36, 108 STUDENT ORGANIZATIONS, 20 Athletic Associations, 20 Cercle Français, 20 Chemistry Club, 20 Classical Club, 20 Debate Board, 20 Engineers' Club, 20 German Club, 20

SWARTHMORE COLLEGE BULLETIN

Student Organizations—Continued Little Theatre Club, 20 Musical Clubs, 20 Philosophy Club, 20 Somerville Forum, 20 Trotter Biological Society, 20 Subject Requirements, 36 Summer School Work, 46 Swarthmore Field, 18 Swimming Pools, 18

Taylor Scholarship, Jonathan K., 31 Thorne Fund, Phebe Anna, 31 Trotter Biological Society, 20 Tuition and Other Fees, 49 Tyson Fellowship, The Martha E., 25 Holders of, 134

UNDERGRADUATE STUDENTS, 1935-36, 108

Summary by States, 122

Vesper Services, 19

Westbury Quarterly Meeting Scholarship, 31 Western Swarthmore Club Scholarship, 31 Wharton Hall, 17 Willets Funds, Samuel, 31 Williamson, I. V., Scholarships, 32 Wilson, Edward Clarkson, Scholarship, 32 Wood Fund, Mary, 33 Woolman House, 17 Worth Hall, 17

Zoölogy, Courses in, 105

144



The Bulletin is published quarterly by Swarthmore College, from the College Office, Swarthmore, Pa.

Entered as mail matter of the second-class, in accordance with provision of the Act of Congress of July 16, 1894.