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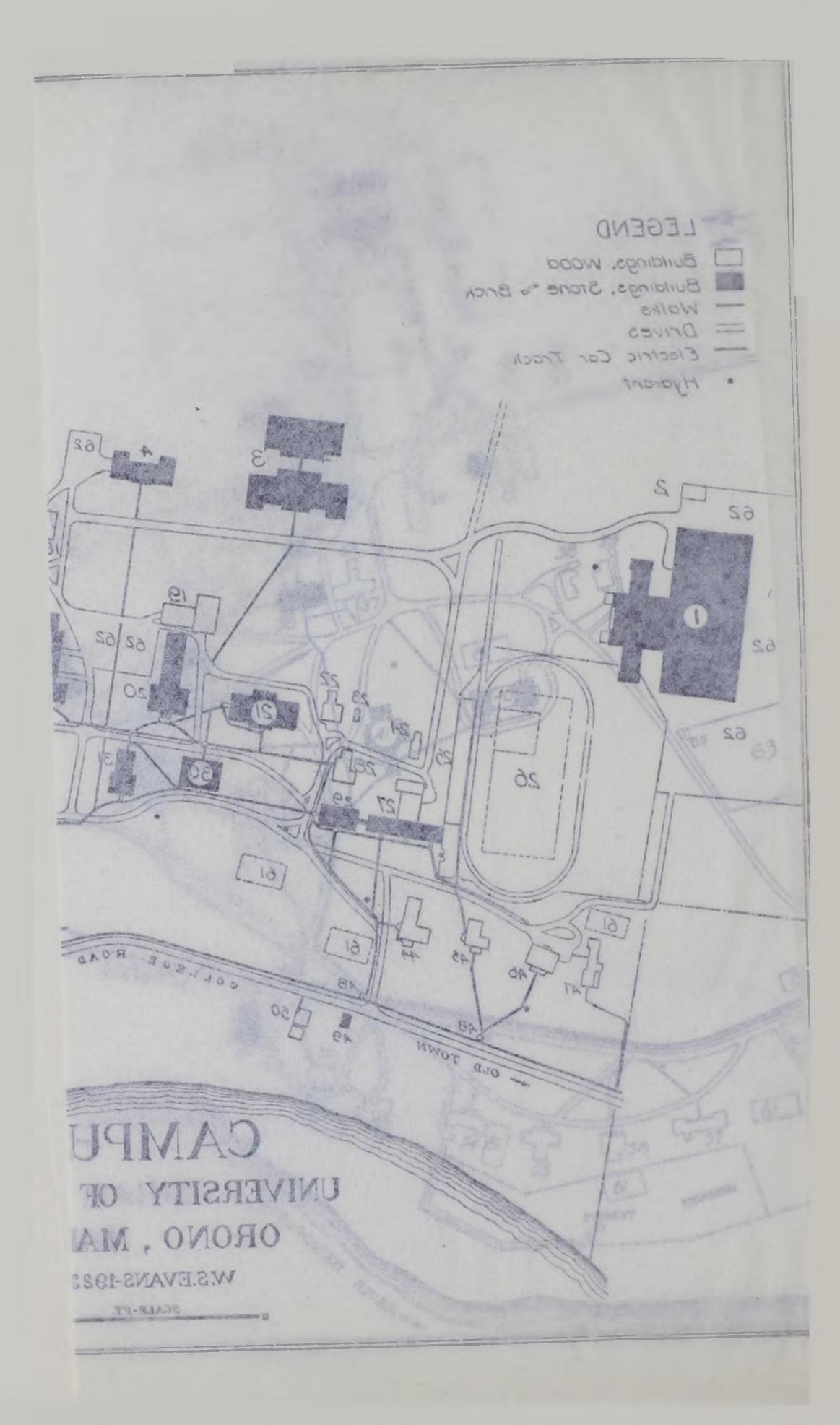
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CATALOG OF THE

UNIVERSITY OF MAINE

Announcements for the Scholastic Year 1929-30

and Records of 1928-29.



ORONO, MAINE

THE UNIVERSITY PRESS ORONO, MAINE 1929

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1929	1929	1930	1930
JANUARY	JULY	JANUARY	JULY
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Calendar

1929

January 2, Wednesday, Christmas Recess ends 8 A.M. February 1, Friday, Fall Semester ends 5:05 P.M.

SPRING SEMESTER

February 2, Saturday, Registration, 8 A.M. to 5 P.M. February 4, Monday, Spring Semester begins 8 A.M. March 22, Friday, Spring Recess begins 5:05 P.M. April 2, Tuesday, Spring Recess ends 8 A.M. May 30, Thursday, Memorial Day, a holiday. May 27, Monday-May 29, Wednesday, Entrance Examinations. June 7, Friday, Class Day. June 8, Saturday, Alumni Day. June 9, Sunday, Baccalaureate Address. June 10, Monday, Commencement

SUMMER SESSION

July 1, Monday, Registration, 8 A.M. to 5 P.M. July 2, Tuesday, Classes begin 7:30 A.M. July 4, Thursday, Independence Day, a holiday. August 9, Friday, Summer Session ends, 12 M.

1929

FALL SEMESTER

September 6, Friday—September 10, Tuesday, Entrance Examinations. September 11, Wednesday, University opens for freshmen. September 17, Tuesday, University opens for upper classmen. November 28, Thursday, Thanksgiving Day, a holiday. December 18, Wednesday, Christmas Recess begins 5:05 P.M.

1930

January 2, Thursday, Christmas Recess ends 8 A.M. January 31, Friday, Fall Semester ends 5:05 P.M.

UNIVERSITY OF MAINE

SPRING SEMESTER

February 1, Saturday, Registration, 8 A.M. to 5 P.M.

February 3, Monday, Spring Semester begins 8 A.M.

February 22, Saturday, Washington's Birthday, a holiday.

March 21, Friday, Spring Recess begins 5:05 P.M.

April 1, Tuesday, Spring Recess ends 8 A.M.

May 30, Friday, Memorial Day, a holiday.

May 26, Monday-May 28, Wednesday, Entrance Examinations.

June 6, Friday, Class Day.

June 7, Saturday, Alumni Day.

June 8, Sunday, Baccalaureate Address.

June 9. Monday, Commencement.



Board of Trustees

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Term expires May 6, 1934	
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Term expires July 14, 1930	
FRANK PORTER WASHBURN	Augusta
Term expires June 25, 1932	
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Term expires October 21, 1933	
Alton Chapman Wheeler, B.A.	South Paris
Term expires October 21, 1933	
WALTER ALONZO DANFORTH	Bangor
Torm avairas Mar. 1 1025	

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Portland

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Building; 143 Main Street

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*Offices and residences

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OF THE DEPARTMENTS

AGRONOMY. Professor Simmons, 26 Winslow Hall, 4 Gilbert Street AGRICULTURAL ECONOMICS AND FARM MANAGEMENT. Professor Merchant,

36 Winslow Hall, 39 Mill Street

AGRICULTURAL EDUCATION. Professor Hill, 38 Winslow Hall, 162 College Road

ANIMAL INDUSTRY. Professor Corbett, 27 Rogers Hall, Campus

- BACTERIOLOGY AND VETERINARY SCIENCE. Professor Russell, 13 Winslow Hall, 85 Main Street
- BIOLOGICAL AND AGRICULTURAL CHEMISTRY. Professor Merrill, 15 Winslow Hall, 178 Main Street
- BIOLOGY. Professor Young (Chairman), 13 Coburn Hall, 68 Main Street
- BIOLOGY (AGRICULTURAL EXPERIMENT STATION). Professor Griffee, Holmes Hall, 24 Mill Street
- CHEMISTRY AND CHEMICAL ENGINEERING. Professor Brautlecht, 333 Aubert Hall, 167 Main Street
- CHEMISTRY (AGRICULTURAL EXPERIMENT STATION). Professor Bartlett, Holmes Hall, 148 College Road
- CIVIL ENGINEERING. Professor Sprague, 25 Wingate Hall, 180 Main Street ECONOMICS AND SOCIOLOGY. Professor Ashworth, 220 Arts and Sciences

Building, 94 North Main Street EDUCATION. Professor Lutes, 28 Fernald Hall, College Road

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ENGINEERING DRAWING. Professor Kent, 38 Wingate Hall, 16 Sixth Street, Bangor

ENGLISH. Professor Ellis, 230 Arts and Sciences Building, 29 Park Street ENTOMOLOGY (AGRICULTURAL EXPERIMENT STATION). Professor Patch,

Holmes Hall, College Road

FORESTRY. Professor Briscoe, 24 Winslow Hall, 380 College Road

FRENCH. Professor Kueny, 332 Arts and Sciences Building, University Inn

- GERMAN. Professor Drummond, 325 Arts and Sciences Building, 61 Bennoch Street
- GREEK LANGUAGE AND LITERATURE. Professor Huddilston, 28 Library, 193 Main Street

HISTORY AND GOVERNMENT. Professor Colvin, 150 Arts and Sciences Building, University Inn HOME ECONOMICS. Professor Greene, 4 The Maples, College Park

HORTICULTURE. Professor Waring, 34 Winslow Hall, College Road and Kell Street

LATIN. Professor Chase, 140 Arts and Sciences Building, 143 Main Street MATHEMATICS AND ASTRONOMY. Professor Willard, 130 Arts and Sciences Building, 142 Bennoch Street

- MECHANICAL ENGINEERING. Professor Sweetser, 21 Lord Hall, 109 Main Street
- MECHANICS. Professor Weston, 15 Wingate Hall, College Road
- MILITARY SCIENCE AND TACTICS. Major Oliver, Armory, 86 North Main Street
- MUSIC. Director Sprague, 350 Arts and Sciences Building, 217 Union Street, Bangor
- Риговорну. Professor Levinson, 335 Arts and Sciences Building, 178 North Main Street
- PLANT PATHOLOGY (AGRICULTURAL EXPERIMENT STATION). Professor Folsom, Holmes Hall, 63 Forest Ave.
- PHYSICAL EDUCATION. Professor Kent, Alumni Hall, 16 Sixth Street, Bangor

PHYSICS. Professor Fitch, 200 Aubert Hall, 32 College Road

- PSYCHOLOGY. Professor Dickinson, 120 Arts and Sciences Building, 55 Bennoch Street
- PUBLIC SPEAKING. Professor Bailey, 240 Arts and Sciences Building, 11 Oak Street
- SPANISH AND ITALIAN. Professor Peterson, 23 Fernald Hall, 29 Bennoch Street

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KATHLEEN KELLEY, Secretary to the Dean of the College of Arts and Sciences. 100A Arts and Sciences Building

MILDRED MARY FRENCH, Secretary to the Dean of the College of Technol-

ogy. 12 Wingate Hall

DOROTHEA LEWIS, Secretary to the Treasurer. 7 Alumni Hal!

***Faculty of Instruction**

HAROLD SHERBURNE BOARDMAN, President.

B.C.E., Maine, 1895; C.E., 1898; Eng.D., 1922; LL.D., Colby, 1927; Eng.D., Rhode Island, 1928

LUCIUS HERBERT MERRILL, Professor of Biological and Agricultural Chen istry.

B.S., Maine, 1883; Sc.D., 1908

JAMES NORRIS HART, Dean of the University and Professor of Mathematics and Astronomy.

B.C.E., Maine, 1885; C.E., 1890; M.S., Chicago, 1897; Sc.D.,

Maine, 1908; Ph.D., 1922

FREMONT LINCOLN RUSSELL, Professor of Bacteriology and Veterinary Science.

> B.S., Maine, 1885; V.S., New York College of Veterinary Surgeons, 1886

JAMES STACY STEVENS, Dean of the College of Arts and Sciences and Professor of Physics.

> B.S., Rochester, 1885; M.S., 1888 and Syracuse, 1889; LL.D., Rochester, 1907; Litt.D., Maine, 1922

JOHN HOMER HUDDILSTON, Professor of the Greek Language and Literature and Lecturer on Art History.

B.A., Baldwin, 1890, and Harvard, 1893; Ph.D., Munich, 1897 GEORGE DAVIS CHASE, Dean of Graduate Study and Professor of Latin. B.A., Harvard, 1889; M.A., 1895; Ph.D., 1897; LL.D., Maine, 1927 CAROLINE COLVIN, Professor of History and Government. B.A., Indiana, 1893; Ph.D., Pennsylvania, 1901; LL.D., Maine, 1927 CHARLES PARTRDGE WESTON, Professor of Mechanics. B.C.E., Maine, 1896; C.E., 1899; M.A., Columbia, 1902 JOHN MANVERS BRISCOE, Professor of Forestry. M.F., Yale, 1909 LEON STEPHEN MERRILL, Dean of the College of Agriculture and Director of Agricultural Extension Service. M.D., Bowdoin, 1889; Sc.D., Maine, 1922

*Arranged in groups in order of seniority of appointment.

George Edward Simmons, Professor of Agronomy.

B.S., Ohio Northern, 1902; M.S., 1905; B.Sc., Ohio State, 1909; D.Sc., Ohio Northern, 1922

WILLIAM EDWARD BARROWS, Professor of Electrical Engineering. B.S., Maine, 1902; E.E., 1908

LAMERT SEYMOUR CORBETT, Professor of Animal Industry.

B.Sc., Massachusetts Agricultural, 1909; M.S., Kentucky, 1913 WILLIAM JORDAN SWEETSER, Professor of Mechanical Engineering.

B.S., Massachusetts Institute of Technology, 1901 Roy MERLE PETERSON, Professor of Spanish and Italian.

B.A., Coe, 1906; M.A., Harvard, 1910; Ph.D., 1912; F.A.A.R. ROBERT RUTHERFORD DRUMMOND, Professor of German.

B.S., Maine, 1905; Ph.D., Pennsylvania, 1909

HERBERT STAPLES HILL, Professor of Agricultural Education.

B.A., Bowdoin, 1905

HARLEY RICHARD WILLARD, Professor of Mathematics.

B.A., Dartmouth, 1899; M.A., 1902 and Yale, 1910; Ph.D., 1912 JOHN H ASHWORTH, Professor of Economics and Sociology.

B.A., Emory and Henry, 1906; Ph.D., Johns Hopkins, 1914

CHARLES ANDREW BRAUTLECHT, Professor of Chemistry.

Ph.B., Yale, 1906; Ph.D., 1912

HAROLD MILTON ELLIS, Professor of English and Director of the Summer Session.

B.A., Maine, 1907; M.A., 1908, and Harvard, 1909; Ph.D., 1913 EMBERT HIRAM SPRAGUE, Professor of Civil Engineering.

B.S., Dartmouth, 1900

ALBERT LEWIS FITCH, Professor of Physics.

B.A., Albion, 1911; M.A., 1912; Ph.D., Michigan, 1916 LUTHER JOHN POLLARD, Director of University Extension.

B.A., Lawrence, 1910; M.A., Wisconsin, 1915 FRED MANSFIELD BRICE, Professor of Physical Education. JAMES ADRIAN GANNETT, Registrar.

B.S., Maine, 1908; M.A., 1928

FRANÇOIS JOSEPH KUENY, Professor of French.

B. es L., University of Paris, 1897; L. es L., Besançon, 1901 JOHN WILLIAM DRAPER, Professor of English.

B.A., New York University, 1914; M.A., 1915; M.A., Harvard, 1918; Ph.D., 1920

CHARLES HENRY MERCHANT, Professor of Agricultural Economics and Farm Management.

B.S., Cornell, 1920; M.S., 1922; Ph.D., 1928

MARK BAILEY, Professor of Public Speaking. B.A., Yale, 1915; M.A., Michigan, 1917 JAMES HOWARD WARING, Professor of Horticulture. B.S., Pennsylvania State, 1920; M.S., 1921 **RAYMOND** EDWIN VERMETTE, Professor of Military Science and Tactics. Captain, Infantry, (D.O.L.), U. S. Army RICHARD GRAY MCKEE, Professor of Military Science and Tactics. First Lieutenant, Infantry, (D.O.L.), U. S. Army PAUL CLOKE, Dean of the College of Technology. E.E., Lehigh, 1905; M.S., 1913 CHARLES ALEXIUS DICKINSON, Professor of Psychology. M.A., Clark, 1922; Ph.D., 1925 OLIN SILAS LUTES, Professor of Education. B.A., Ohio, 1915; M.A., Iowa, 1923; Ph.D., 1926 PEARL STUART GREENE, Professor of Home Economics. B.A., Northwestern, 1909; B.S., Lewis Institute, 1914; M.A., Columbia, 1923 ARTHUR ST. JOHN HILL, Professor of Electrical Engineering. E.E., Polytechnic Institute of Brooklyn, 1911 RONALD BARTLETT LEVINSON, Professor of Philosophy. B.A., Harvard, 1920; Ph.D., Chicago, 1924 FERDINAND HENRY STEINMETZ, Professor of Botany and Head of the Division of Botany. B.S.Agr., Illinois, 1915; M.S., Minnesota, 1921; Ph.D., 1926 DONNELL BROOKS YOUNG, Professor of Zoology, Head of the Division of Zoology, and Chairman of the Department of Biology. B.S., Amherst, 1911; Ph.D., Columbia, 1923 LOUIS TAPPE IBBOTSON, Librarian. B.A., Hamilton, 1922; B.L.S., University of the State of New York, 1925 EDWARD JAMES OLIVER, Professor of Military Science and Tactics. Major of Infantry (D.O.L.), U. S. Army LOREN PRESCOTT STEWART, Professor of Military Science and Tactics. Captain, Infantry (D.O.L.), U. S. Army BENJAMIN CALVIN KENT, Professor of Engineering Drawing and Faculty Manager of Athletics. B.S., Maine, 1912 CHESTER ALBERT JENKINS, Professor of Physical Education. B.S., Dartmouth, 1911 MAURICE DANIEL JONES, Professor of Agricultural Economics and Farm Management. B.S., Maine, 1912; M.S., 1926

- ALPHEUS CROSBY LYON, Associate Professor of Civil Engineering. B.S., Maine, 1902; B.S., Massachusetts Institute of Technology, 1904;
 - C.E., Maine, 1913
- BERTRAND FRENCH BRANN, Associate Professor of Chemistry.
 - B.S., Maine, 1909; M.S., 1911; M.S., Massachusetts Institute of Technology, 1912
- AVA HARRIET CHADBOURNE, Associate Professor of Education. B.A., Maine, 1915; M.A., 1918 and Columbia, 1919; Ph.D., Columbia, 1928
- HAROLD WALTER LEAVITT, Associate Professor of Civil Engineering. B.S., Maine, 1915; C.E., 1918; M.S., 1921
- ALBERT AMES WHITMORE, Associate Professor of History and Government. B.S., Maine, 1906; M.A., 1917
- Noah Rosenberger Bryan, Associate Professor of Mathematics. B.A., Pennsylvania State, 1913; M.A., Pennsylvania, 1918; Ph.D., Columbia, 1921
- LLEWELLYN MORSE DORSEY, Associate Professor of Animal Industry. B.S., Maine, 1916; M.S., 1923
- ALBERT MORTON TURNER, Associate Professor of English.
 - B.A., Harvard, 1912; M.A., 1914; Ph.D., 1920
- WALTER JOSEPH CREAMER, Associate Professor of Electrical Engineering and Director of Freshman Week.

B.S., Maine, 1918; E.E., 1921; B.A., 1923

PAUL DECOSTA BRAY, Associate Professor of Chemistry.

B.S., Maine, 1914; Ch.E., 1918

ELMER REEVE HITCHNER, Associate Professor of Bacteriology.

B.S., Pennsylvania State, 1915; M.S., 1916 Adelbert Wells Sprague, Director of Music.

B.S., Maine, 1905; M.A., Harvard, 1907

MAYNARD FRED JORDAN, Associate Professor of Mathematics and Astronomy.

B.A., Maine, 1916; M.A., 1921

STANLEY MOORE WALLACE, Associate Professor of Physical Education.

Diploma, New Haven Normal School of Gymnastics, 1917 CHARLES BURTON CROFUTT, Associate Professor of Physics.

B.A., Cornell College, 1919; M.S., Iowa, 1920; Ph.D., 1923

HARRY CURTIS MITCHELL, Associate Professor of History and Government.

B.D., Rochester Theological Seminary, 1920; M.A., University of California, 1922; Ph.D., 1923

KENNETH STILLMAN RICE, Associate Professor of Zoology.

Ph.B., Brown, 1913; Sc.M., 1915; Ph.D., 1927

CLIFFORD STETSON PARKER, Associate Professor of French.

B.A., Harvard, 1912; M.A., Harvard, 1914; Ph.D., Columbia, 1925

HARRY WOODBURY SMITH, Assistant Professor of Biological and Agricultural Chemistry.

B.S., Maine, 1909; M.S., 1922

- *BENJAMIN COE HELMICK, Assistant Professor of Agronomy.
- B.S., Iowa State College, 1914; M.S., Cornell, 1915
- CHAUNCEY WALLACE LORD CHAPMAN, Assistant Professor of Forestry.

B.S., Maine, 1914; M.S., 1921

- LOUISE BANCROFT, Assistant Professor of Home Economics.
- B.S., Simmons, 1920; M.A., Teachers College, Columbia, 1928
- [†]WESTON SUMNER EVANS. Assistant Professor of Civil Engineering. B.S., Maine, 1918; M.S., 1923
- LEIGH PHILBROOK GARDNER, Assistant Professor of Animal Industry. B.S., Maine, 1920; M.S., 1923
- WARREN STANHOPE LUCAS, Assistant Professor of Mathematics. B.A., Maine, 1914; M.A., 1922
- HARRY DEXTER WATSON, Assistant Professor of Mechanical Engineering. B.S., Maine, 1920
- HAROLD CHANDLER WHITE, Assistant Professor of Chen istry.

B.S., Maine, 1915; Ch.E., Maine, 1921

- WALTER FRENCH, Assistant Professor of German.
 - B.A., Ohio State, 1912; M.A., 1915; Ph.D., 1918
- CARL EVERETT OTTO, Assistant Professor of Chemistry.
- B.A., Cincinnati, 1916; M.A., 1920; Ph.D., 1922
- EVELYN BUCHAN, Assistant Professor of Economics and Sociology.

Ph.B., Chicago, 1920; M.A., Chicago, 1922

FRANCES ELIZABETH ARNOLD, Assistant Professor of Spanish and Italian. B.A., Maine, 1910; M.A., 1923
MARION STEPHANIE BUZZELL, Assistant Professor of French. B.A., Maine, 1914; M.A., 1916
HAROLD CLAYTON SWIFT, Assistant Professor of Agronomy. B.S., Maine, 1918; M.S., 1923
EVERETT LOUIS ROBERTS, Assistant Professor of Electrical Engineering. B.S., Maine, 1920
†IRVING TREFETHEN RICHARDS, Assistant Professor of English. B.A., Bowdoin, 1920; M.A., Maine, 1925 and Harvard, 1927
WALTER WHITMORE CHADBOURNE, Assistant Professor of Economics and Sociology. B.A., Maine, 1920; M.B.A., Harvard, 1922

*On leave of absence 1928-29.

†On leave of absence, spring semester, 1929.

ANNA JEAN MILL, Assistant Professor of English.

M.A., St. Andrews, 1914; Ph.D., 1925

GILBERT IRELAND STEWART, Assistant Professor of Forestry.

B.S., Michigan, 1922; M.F., Yale, 1926

ACHSA MABEL BEAN, Dean of Women and Assistant Professor of Zoology. B.A., Maine, 1922; M.A., 1925

CHARLES ORVILLE DIRKS, Assistant Professor of Entomology.

B.S., Kansas Agricultural, 1924; M.S., Iowa, 1925

HELEN ANNA LENGYEL, Assistant Professor of Physical Education for Women.

> Diploma, Sargent School for Physical Education, 1915; B.A., Maine, 1927

DONALD STOVER PISTON, Assistant Professor of Physics.

B.S., Massachusetts Institute of Technology, 1921

IRVING HENRY PRAGEMAN, Assistant Professor of Mechanical Engineering.

Ph.B., Sheffield Scientific School, 1918; M.E., Yale, 1923

MARION DEVOE SWEETMAN, Assistant Professor of Home Economics.

B.S., Iowa State College, 1921; M.S., 1922; Ph.D., Minnesota, 1927 RICHARD GEORGE WOOD, Assistant Professor of History and Government.

B.A., Dartmouth, 1922; M.A., Harvard, 1924

WERNER THADEUS SNYDER, Assistant Professor of Agronomy.

B.S., Purdue, 1915; M.S., 1928

WILLIAM FRANCIS SCAMMAN, Assistant Professor of English.

B.A., Maine, 1908.

LAURENCE BRACKETT HOYT, Assistant Professor of Civil Engineering.

B.S., Massachusetts Institute of Technology, 1913.

FREDERICK SHAW YOUNGS, Lecturer in Economics. B.S., Maine, 1914

EVERETT WILLARD DAVEE, Instructor in Mechanical Engineering. EVERETT JOSHUA FELKER, Instructor in Civil Engineering. HARRY ROY PERKINS, Instructor in Mechanical Engineering. HOWE WIGGIN HALL, Instructor in Animal Industry.

B.S., Maine, 1914; M.S., 1925

Lyle Clayton Jenness, Instructor in Chemistry.

B.S., New Hampshire, 1922; M.S., Maine, 1925 FRANK DAVID DONCHECZ, Instructor in Military Science and Tactics. Sergeant (D.E.M.L.), U. S. Army.

- *RENA CAMPBELL, Instructor in Home Economics. B.S., Maine, 1921
- ARTHUR OSGOOD WILLEY, Instructor in Mechanical Engineering. B.S., Maine, 1924
- HERMAN SAMUEL SILVERMAN, Instructor in Mathematics.
 - B.A., Maine, 1925; M.A., 1927
- Myron Francis Babb, Instructor in Horticulture.
 - B.S., Maine, 1926
- JOHN GEORGE LESLIE CAULFIELD, Instructor in Chemistry.
 - B.S., Maine, 1924; M.S., 1926
- KENNETH GERARD CRABTREE, Instructor in Electrical Engineering.
 - B.S., Massachusetts Institute of Technology, 1922
- EARL MAYNARD DUNHAM, Instructor in Physics.
 - B.A., Maine, 1924; M.A., 1928
- FAY HYLAND, Instructor in Botany.
 - B.S., Michigan State College, 1925
- WILLIAM CURTIS KENYON, Instructor in Physical Education.
- GEORGE OGILVIE, Instructor in Military Science and Tactics.
 - Sergeant (D.E.M.L.), U. S. Army
- BEULAH ELIZABETH OSGOOD, Instructor in Home Economics. B.S., Maine, 1926
- THERON ALONZO SPARROW, Instructor in Engineering Drawing. B.S., Maine, 1924
- HAIG DEVIRMENJIAN (DERMEN), Instructor in Botany.
- B.S., Connecticut Agricultural, 1925; M.S., Maine, 1927 ADA COHEN, Instructor in German.

B.A., Maine, 1926
FREDERICK GARDINER FASSETT, Jr., Instructor in English.
B.A., Colby, 1923; M.A., 1927
CECIL GLADSTONE GARLAND, Instructor in Economics and Sociology.
B.A., Maine, 1924; M.A., Brown, 1927
WILLIAM LESTER GILLILAND, Instructor in Chemistry.
B.S., University of Washington, 1920; M.S., 1921; Ph.D., Massachusetts Institute of Technology, 1925
ZAIDEE EUDORA GREEN, Instructor in English.
LL.B., Washington College of Law, 1921; L.M., 1922; B.A., William and Mary, 1924
ALICE LOUISE HART, Instructor in Education.
B.A., Radcliffe, 1910; Ed.M., Harvard, 1927

*On leave of absence fall semester, 1928-29.

WILLIAM WILKINSON ROBERTSON, Instructor in Military Science and Tactics. Sergeant (D.E.M.L.), U. S. Army MARION ELIZABETH ROGERS, Instructor in Physical Education for Women. Diploma, Sargent School for Physical Education, 1927. ALVIN SLOANE, Instructor in Engineering Drawing. B.S., Tufts, 1921 GEORGE WALLIS WOODBURY, Instructor in Horticulture. B.S., Michigan, 1927 HERSCHEL LEONARD BRICKER, Instructor in Public Speaking. B.A., Coe, 1928 EDWARD NEWCOMB BRUSH, Instructor in Psychology. B.A., Vermont, 1925; M.A., 1926 LOUIS CABRERA, Instructor in Spanish. B.A., Dubuque, 1927 GORDON MACKENZIE FERGUSON, Instructor in History. B.A., Harvard, 1926; M.A., 1928 GLADYS MARIE GOULD, Instructor in Home Economics. B.S., Maine, 1922 MAURICE WILLYLE KELLEY, Instructor in English. B.A., Oklahoma, 1927 GRANT GARNSEY LAVERY, Instructor in Mathematics. B.S., Middlebury, 1928 NANCY HARPER McCREARY, Instructor in English. B.A., Smith, 1918; M.A., Radcliffe, 1926 LAWRENCE LEWIS OSBORN, Instructor in Chemistry. B.A., Indiana, 1924; M.A., 1927

DAVID HARVEY STEVENS, Instructor in Civil Engineering.
B.S., Maine, 1928
JOHN EMMONS STEWART, Instructor in Mathematics.
B.A., Maine, 1927; M.A., 1928
WALTER REGINALD WHITNEY, Instructor in English.
B.S., Bowdoin, 1923
ROBERT NATHANIEL POLLOCK, Instructor in Chemistry.
B.S., University of Washington, 1927; Carnegie Institute of Technology, 1928

MARY PAULINE AIKEN, Graduate Fellow in Latin.

B.A., Maine, 1927

KATHRYN SCHANLEY WOODBURY, Graduate Fellow in French.

B.A., Elmira, 1924

LESTER LYLE SCHMITTER, Graduate Fellow in Economics and Sociology. B.A., Penn, 1927

ELSIE FURBUSH BRICKETT, Graduate Fellow in English.
B.A., Bates, 1925
CARL HAVELOCK WEDELL, Graduate Fellow in Psychology.
B.Ph., Vermont, 1927
LAURA GREEN PEDDER, Graduate Scholar in English.
B.A., Maine, 1928

HERBERT BURR ABBOTT, Mechanician in the Mechanical Engineering Department.

LEO DAY, Assistant in State Highway Laboratory.

RALPH FREEMAN BOWDEN, Electrician in the Electrical Engineering Department.

ALMA JOHNSON, Resident Health Nurse.

R.N., Swedish Hospital, Minneapolis, 1919

EILEEN KANE, Assistant Librarian.

ALICE PALMER HAMMOND, Assistant in the Library.

B.A., Maine, 1927



Faculty of Investigation

(THE MAINE AGRICULTURAL EXPERIMENT STATION)

WARNER JACKSON MORSE, Director.

B.S., Vermont, 1898; M.S., 1903; Sc.D., 1923; Ph.D., Wisconsin, 1912 JAMES MONROE BARTLETT, Chemist.

B.S., Maine, 1880; M.S., 1883; Sc.D., 1927

EDITH MARION PATCH, Entomologist.

B.S., Minnesota, 1901; M.S., Maine, 1910; Ph.D., Cornell, 1911 DONALD FOLSOM, Plant Pathologist.

B.A., Nebraska, 1912; M.A., Minnesota, 1914; Ph.D., 1917 ELMER ROBERT TOBEY, Chemist.

B.S., Maine, 1911; M.S., 1917; Ch.E., 1920

CHARLES HENRY MERCHANT, Agriculturist Economist.

B.S., Cornell, 1920; M.S., 1922; Ph.D., 1928

PEARL STUART GREENE, Home Economics.

B.A., Northwestern, 1909; B.S., Lewis Institute, Chicago, 1914; M.A., Columbia, 1923

FRED GRIFFEE, Biologist, Plant Breeding.

B.S., Kansas, 1918; M.S., Minnesota, 1920; Ph.D., 1924 CLARENCE RITCHIE PHIPPS, Associate Entomologist.

B.S., Massachusetts Agricultural, 1919; M.S., Iowa, 1927 FORREST VERNE OWEN, Associate Biologist, Plant Breeding. B.. Utah, 1921; M.S., Oregon, 1923; Ph.D., Wisconsin, 1926 WILLIAM FRANKLIN DOVE, Associate Biologist, Animal Breeding. B.S., Iowa, 1922; M.S., Wisconsin, 1923; Ph.D., 1927 AUBREY CLARE HILDRETH, Associate Biologist, Blueberry Investigations. B.S., West Virginia, 1917; Ph.D., Minnesota, 1926 JOHN LOW BABSON, JR., Associate Agricultural Economist. B.S., Maine, 1924; M.S., 1927 CHARLES HARRY WHITE, Associate Chemist. Ph.C., Maine, 1897 **REINER BONDE**, Associate Plant Pathologist. B.S., Minnesota, 1922; M.S., Maine, 1926 BERNIE ELLIOTT PLUMMER, JR., Assistant Chemist. B.S., Maine, 1924; M.S., 1925 JOHN HENRY HAWKINS, Assistant Entomologist. B.S., Illinois, 1926; M.S., Maine, 1927

George FARRINGTON Dow, Assistant Agricultural Economist. B.S., Maine, 1927 GAIL MARGARET REDFIELD, Assistant, Home Economics. B.S., Iowa State College, 1925; M.S., 1927 FLORENCE LYDIA MARKIN, Assistant Plant Pathologist. B.S., Montana, 1924; M.S., Wisconsin, 1926 MILDRED REBECCA COVELL, Assistant in Biology. IVA MERCHANT BURGESS, Assistant in Biology. B.S., Maine, 1923; M.S., 1925 MARGARET SCHNEIDER DERMEN, Assistant in Biology. B.A., Smith, 1922; M.A., Columbia, 1926 ALICE WOODS AVERILL, Laboratory Assistant in Entomology. EMMELINE WILSON KENNEY, Laboratory Assistant in Biology. BERNICE MARION BABBIN, Seed Analyst and Laboratory Assistant in Plant Pathology. FREDERICK BARKER CHANDLER, Laboratory and Field Assistant, Blueberry Investigations. B.S., Maine, 1928 DELMAR BOYNTON LOVEJOY, Laboratory and Field Assistant, Plant Breeding. B.S., Maine, 1928



Faculty of Extension Service

(COLLEGE OF AGRICULTURE)

LEON STEPHEN MERRILL, Director. M.D., Bowdoin, 1889; Sc.D., Maine, 1922 ARTHUR LOWELL DEERING, Assistant Director. B.S., Maine, 1912

STATE AGENTS

MILDRED GREELEY BROWN, Assistant State Club Leader. B.S., Maine, 1925 EDNA MANSFIELD COBB, Household Management Specialist. B.S., Cornell, 1928 ARTHUR LOWELL DEERING, County Agent Leader. B.S., Maine, 1912 ALBERT KINSMAN GARDNER, Crops Specialist. B.S., Maine, 1910 RALPH MELVILLE HUTCHINSON, Forestry Specialist. B.S., Maine, 1924 ARDRON BAYARD LEWIS, Executive Secretary to Director of Extension. B.S., Maine, 1928 ESTELLE NASON. State Home Demonstration Agent Leader. B.S., Maine, 1922 DONALD WINSLOW REED, Farm Management Demonstrator. B.S., Maine, 1922 HARRISON LAMBERT RICHARDSON, Specialist in Poultry Husbandry. B.S., Maine. 1924 GLENN K. RULE, Extension Editor. B.S., Ohio State, 1917 LESTER HALE SHIBLES, State Club Leader. B.A., Colby, 1915 HELEN CONSTANCE SPAULDING, Clothing Specialist. B.S., Simmons, 1913 RICHARD FOSTER TALBOT, Specialist in Dairy Husbandry. B.S., Maine, 1907 THERESE ELIZABETH WOOD, Foods Specialist. B.S., Western Reserve, 1923

COUNTY AGENTS

VERNE CURTIS BEVERLY, Aroostook County. B.S., Maine, 1920 CLARENCE ALBERT DAY, Kennebec County. NORMAN SYLVESTER DONAHUE, Waldo County. B.S., Maine, 1915 GERALD COBB DUNN, Somerset County. B.S., Maine, 1923 CHARLES LESLIE EASTMAN, Androscoggin and Sagadahoc Counties. B.S., Maine, 1922 RALPH WILLIAM HOBSON, Washington County. B.S., Maine, 1925 GEORGE EDGAR LORD, Franklin County. B.S., Maine, 1924 RAYMOND HARVEY LOVEJOY, York County. B.S., Maine, 1921 LEON OTIS MARSHALL, Penobscot County. B.S., Maine, 1921 DONALD HARRY RIDLEY, Oxford County. B.S., Maine, 1927 WILFRED SHERMAN Rowe, Cumberland County. ROBERT AUSTIN TATE, Assistant County Agent, Aroostook County. B.S., Maine, 1926 GARDNER BERRY TIBBETTS, Hancock County. B.S., Maine, 1922 RALPH CARLTON WENTWORTH, Knox and Lincoln Counties. B.S., Maine, 1918 ELDWIN ATWELL WIXSON, Piscataquis County. B.S., Maine, 1928

HOME DEMONSTRATION AGENTS

EFFIE HARRIS BRADEEN, Oxford County. B.S., Maine, 1926
CLARA MINA BRONSON, York County. B.S., Framingham Normal, 1925
JEANETTE CONSTANCE CANNON, Hancock County. B.S., Simmons, 1928
LEONE MAE DAKIN, Franklin County. B.S., Maine, 1926

UNIVERSITY OF MAINE

LUCY FARRINGTON, Piscataquis County. B.S., Maine, 1927 AGNES FREYER, Cumberland County. B.S., Framingham Normal, 1926 ELISABETH LINEKEN FRIEND, Somerset County. B.S., Maine, 1925 LUCILE EMMAUDE HAVENER, Kennebec County. B.S., Framingham Normal, 1928 AGNES MAY MASSE, Waldo County. B.S., Maine, 1928 NETTIE HARRIETT SIMMONS, Knox and Lincoln Counties. B.S., Framingham Normal, 1925 HELEN VIRGINIA SMITH, Penobscot County. B.S., Maine, 1928 EVELYN SADIE STOWELL, Aroostook County. B.S., Framingham Normal, 1927 RUTH MARIA THOMPSON, Washington County. B.S., Maine, 1928 HORTENSE AGNES WELCH, Androscoggin and Sagadahoc Counties. B.S., Maine, 1927

COUNTY CLUB AGENTS

EARLE THEODORE BLODGETT, York County.

B.S., Maine, 1927

EFFIE GOWER JONES, Kennebec County.

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KENNETH COUSINS LOVEJOY, Waldo County.
B.S., Maine, 1928
MARTHA CORINNE MERRILL, Penobscot County.
B.S., Farmington Normal, 1928
EVELYN MARIE PLUMMER, Oxford County.

Faculty Committees

ADMINISTRATION—President, University and College Deans, Registrar, Treasurer ATHLETICS—Corbett, Gardner, A. K., Lyon, Pollard, Sprague, E. H. EDUCATIONAL RESEARCH-Hart, J. N., Bryan, Buchan, Chadbourne, W. W., Creamer, Dickinson, Evans, Greene, Jones, Leavitt, Levinson, Lutes, Merchant, Young ELIGIBILITY—Pollard, Bean, Gannett, Kent, Sprague, A. W. FINANCIAL AFFAIRS-Youngs, Chadbourne, W. W., Pierce HEALTH-Young, Greene, Hitchner, Jenkins, Johnson, Oliver Honors-Brann, Buchan, Chadbourne, A. H., Ellis, Merchant MILITARY-Oliver, Boardman, Dorsey, Wallace PHYSICAL TRAINING-Kent, Brice, Corbett, Jenkins, Lengyel, Wallace PUBLICITY-Gannett, Crossland, Fassett, Pollard RULES—Peterson, Dorsey, Smith SCHEDULE-Weston, Dorsey, Evans, Gannett, Jordan, and College Deans

SECONDARY SCHOOL RELATIONS-Hart, J. N., Buzzell, Chase, Dickinson, Drummond, Ellis, Fitch, Hill, H. S., Lutes, Pollard, Sweetser Social Affairs-Kueny, Bean, Buzzell, Cloke, Colvin, Pollard, Waring WOMEN STUDENTS-Bean, Buchan, Buzzell, Chadbourne, A. H., Colvin, Greene

GENERAL INFORMATION

HISTORY

The University of Maine is a part of the public educational system of the State. It was established originally as the State College of Agriculture and the Mechanic Arts under the provisions of the Morrill Act, approved by President Lincoln in 1862. The next year the State of Maine accepted the conditions of the Act and in 1865 created a corporation to administer the affairs of the college.

The institution opened September 21, 1868, with a class of twelve members and a faculty of two teachers. By 1871 four curricula had been arranged,—Agriculture, Civil Engineering, Mechanical Engineering, and Elective. By gradual growth these curricula developed into the College of Agriculture, the College of Technology, and the College of Arts and Sciences. The original name was changed to the University of Maine in 1897. Women have been admitted as students since 1872, in compliance with special legal enactment.

The Maine Agricultural Experiment Station was established as a division of the University by act of the Legislature of 1887, as a result of the passage by Congress of the Hatch Act. It succeeded the Maine Fertilizer Control and Agricultural Experiment Station, which had been estab-

lished in 1885.

The College of Law was opened in 1898. It was an integral part of the institution and until the year 1917 occupied quarters at the corner of Union and Second streets in Bangor. Later it was located on the campus at Orono. It has offered no work since 1920.

Graduate instruction has been given by various departments for many years. The first master's degree was conferred in 1881. Since 1923 graduate work has been a separate division in charge of a dean.

Beginning with 1902, a Summer Session has been held annually, consisting at first of five weeks, but now of six. It is designed primarily for teachers in secondary schools and for college students who desire to make up work or secure additional credits. The departments usually offering courses are Biology, Chemistry, Economics and Sociology, Education, English, French, History and Government, Home Economics, Latin, Mathematics and Astronomy, Physical Education, Physics, Psychology, Public Speaking, and Spanish.

HISTORY

The Extension Division was created in 1925. It is designed to meet the needs of those who do not find it possible to attend regular classes or who desire to supplement the work already taken in residence.

The University is controlled by a Board of Trustees. The first Board was composed of sixteen members, each county delegation in the Legislature selecting one member. Various changes have occurred in the appointment of Trustees. At the present time seven members are appointed by the Governor of the State, with the advice and consent of the Council, for a term of seven years. One member is appointed for three years by the Governor upon the nomination of the Alumni Association. The Commissioner of Education is *ex-officio* a member of the Board.

LOCATION

The University is located in Orono, an attractive town of 3,500 population, with good schools and three churches. The campus of 370 acres, situated about a mile from the business section, borders the Stillwater River, a branch of the Penobscot, and is of great beauty.

Orono is on the main line of the Maine Central Railroad, eight miles east of Bangor, half way between Kittery, the most southerly town in the State on the Maine Central Railroad, and Fort Kent, the most northerly town in the State on the Bangor and Aroostook Railroad. It is not far from the center of population of the State. In addition to steam railroad connection, there is half-hour trolley service to Bangor, nine miles, and Old Town, three miles from the campus. Bangor is the third city of the State in population and an important business center. The location of the University gives students who care to do so an opportunity to avail themselves of its social, religious, and other advantages. Old Town is a prosperous manufacturing city with about 7,000 inhabitants.

BUILDINGS AND THEIR EQUIPMENT

BALENTINE HALL.—The Legislature of 1913 made an appropriation for the erection of one wing of a women's dormitory. This was completed September 1, 1914. The Legislature of 1915 made an appropriation for completing the building. The name was given in honor of Elizabeth Abbott Balentine, secretary and registrar of the University from 1895 to 1913. It contains accommodations for 121 women.

HANNIBAL HAMLIN HALL.—This is a men's dormitory completed in 1911. It contains four stories and a concrete basement. It was named for the Hon. Hannibal Hamlin, of Hampden and Bangor, the first president of the Board of Trustees. It will accommodate 152 students. MOUNT VERNON HOUSE.—This is a wooden building, remodeled in 1898, and is a dormitory for women. It has three stories and will accommodate 31 students.

NORTH HALL.—This is a two story frame house located on the campus, used as a Practice House by the Home Economics Department. It is the residence and laboratory of senior Home Economics students taking the course in Household Administration.

OAK HALL.—This dormitory for men was erected in 1871 and was named for the Hon. Lyndon Oak of Garland, a long time member and president of the Board of Trustees. It is a four story building and has rooms for 96 students.

ALUMNI HALL.—This building was erected in 1900 and was given its name because part of the funds required for its erection were subscribed by the alumni of the University. It contains a gymnasium, chapel, and administrative offices. The chapel is now provided with a pipe organ, the gift of the Eastern Maine Musical Association.

ARTS AND SCIENCES BUILDING.—The State Legislature of 1923 appropriated a sum of money for the construction of a building for the College of Arts and Sciences. It consists of forty-six rooms, which are used for recitations, conference rooms, and offices. They include a psychology laboratory and an accounting room.

AUBERT HALL.—This is a four story building including a high basement. It was named in honor of the late Alfred Bellamy Aubert, professor of chemistry from 1874 to 1910. It is used by the Departments of Chemistry and Physics.

COBURN HALL.—This building contains the Department of Biology, the museum, and the office of the resident health nurse. It was named for ex-Governor Abner Coburn, of Skowhegan, a former president of the Board of Trustees and benefactor of the University.

MAINE CHRISTIAN ASSOCIATION BUILDING.—This building is used by the Maine Christian Association and the University Extension Division. On the first floor are a large assembly room, a reading room, and an office for the secretary of the Maine Christian Association. On the second floor are offices for the University Extension Division and various university organizations and on the third floor are rooms for students.

CROSBY LABORATORY.—This building contains the laboratories of the Department of Mechanical Engineering. The main section is two stories in height while the two wings are only one story. The main section houses the equipment for work in hydraulics, steam engineering, and compressed air.

BUILDINGS

The north wing is devoted to the testing of gas engines and heating and ventilating equipment, and the south wing to the study and testing of engineering materials. This building is named in honor of the Hon. Oliver Crosby, class of '76, who bequeathed \$100,000 for the erection of a mechanical engineering laboratory.

FERNALD HALL.—This building, the oldest on the campus, was named in honor of ex-President Merritt C. Fernald. It contains offices and classrooms used by the Departments of Spanish and Italian, Education, and Mathematics, the University Store, and the offices of the alumni secretary and the director of physical education for women.

HOLMES HALL.—This building contains the offices and laboratories of the Maine Agricultural Experiment Station. It is a two story building in addition to a basement. It was named for Dr. Ezekiel Holmes, of Winthrop.

LIBRARY BUILDING.—The Library Building is of stone, two stories above a basement, and surmounted by a dome. For its erection and furnishing, Mr. Andrew Carnegie gave \$55,000, and the Hallowell Granite Works furnished the granite at a price that was equivalent to a gift of several thousand dollars. The stacks, which are in the rear of the main building, contain shelf room for 60,000 volumes, while other books for which there is no room here are kept elsewhere in the building.

LORD HALL.—This building was erected for the Departments of Electrical Engineering and Mechanical Engineering. It is two stories in height and contains recitation rooms, laboratories, shops, drawing rooms, and offices for the members of these departments. It was named for the Hon. Henry Lord, of Bangor, a former president of the Board of Trustees.

THE MAPLES.—The north half of the building directly south of Winslow Hall contains the laboratories of food and design together with the office of the Home Economics Department. One room is used as a research laboratory for respiratory metabolism or biological analysis of foods. The south half of the building, known as Balentine Annex, furnishes living quarters for a number of young women.

ROGERS HALL.—A two story brick building for dairy manufactures forming the eastern end of the agricultural quadrangle. The first floor is made up of laboratories for butter, ice cream and cheese making, market milk processing, and milk and milk products testing. On this floor are also located cold storage rooms, a refrigerating machinery room, and a supplies room. The second floor comprises a suite of three offices, three class rooms, two research laboratories, and a locker room. The building was named in honor of Dr. Lore A. Rogers, Chief, Research Laboratories, Bureau of Dairy Industry, United States Department of Agriculture.

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STEWART HALL.—This building, situated in Bangor, was designed to provide offices and recitation rooms for the College of Law. It is three stories in height and was named for Hon. D. D. Stewart, of St. Albans, Maine, who was a generous benefactor of this college.

WINGATE HALL.—This building contains three stories and a basement. It is used by the Departments of Civil Engineering, Mechanics, and Drawing. It contains also the office and laboratory of the Technology Experiment Station as well as the offices of the dean of the College of Technology.

WINSLOW HALL.—This is a four story building including the basement. It contains offices, laboratories, and recitation rooms for the various departments of the College of Agriculture. It was named in honor of Hon. Edward B. Winslow, of Portland, a former president of the Board of Trustees.

AGRICULTURAL ENGINEERING BUILDING.—A large two story wooden building located on the north side of the road leading to the dairy barns is used by the Department of Agronomy for laboratory instruction purposes in connection with its courses in agricultural engineering.

FARM BUILDINGS.—These comprise two large modern dairy barns having accommodations for 150 head of cattle, a horse barn, a hay storage barn, a piggery, a sheep barn, and two tool houses.

HORTICULTURAL GREENHOUSES.—Two modern steel frame houses interconnected with one another and with a two story brick service and educational building are located near the south end of the campus. These houses are devoted to the growing of flowers, onamental plants, and vegetables. The service building contains work rooms, laboratories, a classroom, sales and storage rooms, and a basement winter storage room.

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The old greenhouse of wood-frame type, east of Holmes Hall, has been greatly curtailed in size. It is utilized by several departments for investigational work requiring greenhouse space, and by the Department of Horticulture for the production of seedlings for garden planting. The two story frame building attached provides office space on the second floor for several agricultural and home economics extension specialists, while the first floor is devoted to research laboratories equipped for studies in human nutrition.

MILK HOUSE.—The milk house located west of the dairy barns and connected with them by a short passage, is designed to serve as a demonstrational laboratory in herd's milk handling and processing. It contains a milk room, bottle and can washing room, laundry, boiler room, milk testing room, artificially refrigerated holder for milk, and an office for herdsman and dairyman.

COLLEGE OF AGRICULTURE POULTRY PLANT.—This plant consists of a two and one-half story building to which is attached a permanent brooder

BUILDINGS

house. The basement of this building contains an egg-candling room and an incubator room. The laying houses have capacity to accommodate six to eight hundred laying hens.

AGRICULTURAL EXPERIMENT STATION POULTRY PLANT.—This plant comprises an incubator cellar with tenement above, two poultry houses, and a two story building containing a hospital for hens, and rooms for digestion experiments.

STOCK JUDGING PAVILION.—This is an octagonal structure located in the rear of Winslow Hall. It has a seating capacity of 600.

MEMORIAL GYMNASIUM-ARMORY.—One section of the huge Memorial Gymnasium-Armory for which Maine alumni, undergraduates and friends subscribed over \$543,000.00 has been completed and is now in constant use. This is the indoor field and the military quarters. This indoor field, which cost well over \$200,000, is believed to be the largest in the world. It is 340 feet long, 168 feet wide and 70 feet high. Football, baseball and track squads use it in season and it has already proven of great value to the University. It is hoped that the construction of the gymnasium section may be started within the next eighteen months.

ATHLETIC FIELD.—Alumni Field, so called because funds required for its construction were contributed by the Alumni Association, is located at the northern end of the campus. It contains a quarter-mile cinder track, with a 220-yard straightaway, and is graded and laid out for football, baseball, and track and field athletics. It contains a grandstand with a seating capacity of 2,100 and also bleachers seating 2,500.

ATHLETIC FIELD FOR WOMEN.—A new field on the southern end of the campus consists of a regulation hockey field, archery field, and seventy-five yards of straightaway. A field house just completed on the northern end houses all the athletic supplies, and serves as a shelter for teams not in action.

OBSERVATORY.—The astronomical observatory stands on a slight elevation east of Alumni Hall. It contains equipment for work in descriptive and practical astronomy.

INFIRMARY.—This building is used in caring for cases of infectious diseases that may appear among the students. It is located in the rear of Hannibal Hamlin Hall.

PRINT SHOP.—The University Press is located in a wooden building north of Aubert Hall. It contains a modern outfit for the printing required by the University.

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CENTRAL HEATING PLANT.—The Central Heating Plant is located on low ground so that the buildings drain by gravity to the plant. It contains five 150 h. p. boilers, two Worthington duplex return pumps, and scales for weighing coal.

FRATERNITY HOUSES.—The local chapters of Beta Theta Pi, Delta Tau Delta, Kappa Sigma, Phi Kappa Sigma, Sigma Alpha Epsilon, Theta Chi, Sigma Nu, and the Phi Eta Kappa Society have houses on the campus. The following chapters own houses in the vicinity of the University: Phi Gamma Delta, Lambda Chi Alpha, Phi Mu Delta, Sigma Phi Sigma, and Beta Kappa on College Road adjoining the campus; Alpha Gamma Rho on Grove Street; Phi Kappa on College Road at the intersection of North Main Street; Alpha Tau Omega and Sigma Chi on North Main Street. These houses accommodate from twenty to fifty students each.

OTHER BUILDINGS.—In addition to the buildings already described, there are several others devoted to various purposes. Among these are the President's house and five residences occupied by members of the faculty.

THE UNIVERSITY FARMS

The University farms consist of approximately 400 acres divided into two farms, one of which adjoins the campus.

Of the farm land, one hundred eighty acres are under cultivation. One hundred seventy-five acres are devoted to farm crops, ten acres to orchards, two acres to the forest nursery, fifteen acres to poultry lots, twenty acres to systematic forestry, and one hundred ninety acres to forest and pasture lands.

These farm lands together with the campus make the University holdings at Orono approximately 500 acres.

THE UNIVERSITY LIBRARY

The University Library contained at the end of the academic year 88,000 volumes and 27,000 pamphlets. In addition to the general collection of books it includes the following of a more special nature: Law Library, 5,600 volumes, the greater part of which are on deposit in the Court House in Bangor; Agricultural Experiment Station Library, 5,900 volumes, on deposit in the Library Building; Reference Collections shelved in the Department of Physics and the College of Agriculture.

During the academic year, 1927-1928, 2,769 volumes were added to the library by purchase, deposit, gift, and exchange. About 350 periodicals are

BUILDINGS

subscribed for by the library; 200 received as gift or exchange; 75 taken by the Experiment Station.

The library is housed in a building erected in 1906 by gift of Andrew Carnegie. The reading and seminar rooms have table and seating accommodations for 150 students. In the four seminar rooms are shelved German, French, Spanish and Italian literature and language; history; and material relating to the State and the University of Maine. The reference room contains a working collection of almanacs, atlases, concordances, dictionaries, encyclopedias, and yearbooks for the convenience of the student, and for use in the room. Magazines for the current year are on file in the periodical room. Current numbers of engineering journals are available for general use in Wingate Hall and in Lord Hall. Newspapers are kept in a special reading room in the basement.

The library is classified by the Dewey Decimal system. Each book is fully cataloged by author, subject, and title. The catalog is situated in the rear of the delivery room, where are kept magazine indexes and bibliographies as well.

Elementary instruction in the use of the library is given new students during Freshman Week. This includes lectures and practice use of the catalog and magazine indexes.

The rules of the library are designed to facilitate study and promote the use of books. Books and magazines may be taken out of the building for a period of three weeks. Exceptions to this rule are: Experiment Station books which may only circulate with the written order of the Director, and to members of the Station staff; reference books, which do not circulate; reserved books and current numbers of magazines, which may be taken out

of the building only while the library is closed.

Members of the faculty are not restricted as to the number of books borrowed or to the time they may be retained except in the case of fiction, or books otherwise in demand.

Books will be loaned to other libraries, to schools, and to residents of the State when it can be done without interference with local needs. Transportation charges are payable by the borrower.

Any book in circulation or shelved elsewhere on the campus may be recalled to the library at any time. All library books must be returned to the library before the close of the academic year in June for inventory, repair, and binding.

A complete copy of the rules may be had on application at the library.

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Library Hours

8 a.m.— 5 p.m. 6:30—9 p.m. Monday—Thursday 8 a.m.— 5 p.m. Friday 8 a.m.—12 m. 1:30—5 p.m. Saturday 2 p.m.— 4 p.m. 6:30—9 p.m. Sunday

Collections

ART COLLECTION

This collection consists of photographs, prints, engravings, polychrome reproductions, and plaster casts. Many of the large reproductions are framed and the entire collection has found a fitting home in the Library building, the gallery of which is well adapted to the exhibition of many of the plaster-cast reliefs and the larger framed works. The collection is distributed on the first and second floors, in the lecture room, and a seminar room. In the latter is a specially constructed cabinet for mounted photographs.

The entire collection numbers over 4,000 reproductions of various sorts covering the fields of Classical and Renaissance architecture, sculpture, and painting. The illustrations for the Greek, Florentine, and Venetian schools are particularly representative. For much of the work the photographs are supplemented by lantern slides.

The University possesses several of the famous polychrome prints published by the Arundel Society. These and many other colored reproduc-

tions covering nearly all the great masters of Italian painting have been framed; and in the case of the *Madonna della sedia* and the *Sistine Madonna* the reproductions were imported in the frames, which are stucco copies of the originals in Dresden and Florence.

The lecture room in the Library building contains examples of the work of the chief Florentine and Umbrian masters of the fourteenth and fifteenth centuries, arranged on the walls in historical sequence. The gallery of the second floor is devoted to masters of the High Renaissance.

For the study of Greek and Roman antiquity the University possesses a large collection of photographs and lantern slides.

BIOLOGICAL COLLECTIONS

The biological collections are located in Coburn Hall. ZOOLOGICAL COLLECTIONS.—These consist of a working collection of bird

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skins; a display collection of bird mounts; a study collection of various other groups of both vertebrates and invertebrates. These are arranged in the various rooms and laboratories where they are best available for purposes of class use.

BOTANICAL COLLECTIONS.—These collections are situated in rooms on the second and third floors. The herbarium includes several collections of considerable value, the most important of which is the one made by the late Rev. Joseph Blake and presented to the University by Mr. Jonathan G. Clark, of Bangor. It contains more than 7,000 species of both flowering and flowerless plants, and represents more especially the flora of Maine and other New England States, but includes many forms from the Western United States, Mexico, and the West Indies, and a number from many of the European and Asiatic countries, and from Africa and Australia. The late Professor F. L. Harvey left to the herbarium the general collections accumulated during his connection with the University, and his special collection of the weeds and forage plants of Maine, comprising 300 species. Other important collections are Collins's Algae of the Maine Coast, Halsted's Lichens of New England, Halsted's Weeds, Ellis and Everhart's North American Fungi, Cook's Illustrative Fungi, Underwood's Hepaticae, Cummings and Seymour's North American Lichens.

GEOLOGICAL COLLECTIONS

GEOLOGICAL COLLECTIONS.—Owing to the expansion of the Department of Biology and the consequent demand for additional laboratory space, it has been found necessary to remove the geological collections from the room in which they have been exhibited and store them wherever space could be found. The cases in which they are contained are at present in the basement and upper rooms of Coburn Hall, and the collections are no longer accessible. A new wall case containing such specimens as are necessary for class-room illustration has been placed in No. 17 Winslow Hall.

UNIVERSITY PUBLICATIONS

MAINE BULLETIN.—This is a publication issued monthly during the academic year, to give information to the alumni and the general public. It includes the Annual Report and the Annual Catalog.

UNIVERSITY OF MAINE STUDIES, SECOND SERIES.—This is a series of research studies by members of the faculty and graduate students, published under the direction of the Faculty of Graduate Study. For a list of numbers published to date and of the issues of the first series, see the section on graduate study.

ANNUAL REPORT OF THE AGRICULTURAL EXPERIMENT STATION AND THE AGRICULTURAL EXPERIMENT STATION BULLETINS.—These give complete results of the work of investigation of the Station. The Bulletins and Official Inspections are sent free on request to any resident of Maine.

OFFICIAL INSPECTIONS.—These are published by the Agricultural Experiment Station, and contain the result of the work of inspection of agricultural seeds, commercial feeding stuffs, commercial fertilizers, drugs, foods, fungicides and insecticides.

EXTENSION BULLETINS AND EXTENSION NEWS LETTERS.—These publications are issued by the Agricultural Extension Department. A limited supply of the bulletins is available for distribution and will be forwarded on application. The News Letters are distributed to newspapers and persons whose names are on the classified mailing lists.

TECHNOLOGY EXPERIMENT STATION.—Bulletins are published giving the results of investigations and research, and are sent free of charge on request.

THE MAINE ALUMNUS.—This is published eight times during the academic year by the General Alumni Association and is sent to all former students of the University.

Student publications are described in the section "Student Activities."

HEALTH SERVICE

This department offers to the students the services of a full time nurse and part time services of a physician. The Health Service Department is located in Number 8 Coburn Hall. It is equipped to supervise the care of ill students on the campus, assists and cooperates with the Departments of Physical Education and Military Science in conducting physical examinations, when and wherever possible, aids students in securing the correction of defects revealed by the physical examination, maintains office hours for private consultations, and, so far as possible, supervises the health of students.

TEACHERS' REGISTRATION BUREAU

Under the supervision of the Committee on Appointments, the University undertakes to assist properly qualified graduates and former students in securing teaching positions. All seniors who plan to teach are urged to register with the committee. Correspondence with officials who are looking for teachers is welcomed.

STUDENT ACTIVITIES

Cooperative Government

STUDENT SENATE.—The Men's Student Senate exists to act as a coördinating body between the University administration and the student body and to make recommendations to the administration. The Senate is empowered to investigate any question relative to the student body or any member thereof and to recommend action on the same to the administration. The Senate is empowered to summon before it any student or students for trial or testimony. It is truly representative of the men students of the University, being composed of representatives from: (a) each fraternity, (b) the dormitory men, (c) the off-campus men. It maintains a joint committee with the Women's Student Government. It is a member of the National Student Federation of America.

WOMEN'S STUDENT GOVERNMENT ASSOCIATION.—An association to which all of the women registered as students of the University of Maine belong. Its purpose is to enact and enforce laws in all matters pertaining to student life and to encourage active cooperation in the work of self-government among the women of the University.

Religious Activities

MAINE CHRISTIAN ASSOCIATION.—The Maine Christian Association, open to all men students, has for its object the promotion of Christian fellowship, knowledge and service. The work is done by student committees, under the guidance of two secretaries, one of whom is related especially to the freshman class. The Association, in coöperation with the Y.W.C.A., conducts the religious services of the University, arranges for prominent outside speakers on religious and social subjects, carries on discussion groups and deputations, brings comfort to the sick, and in general seeks to meet the spiritual needs of the students. The general secretary also acts as university pastor for several denominations. The work is centered in the Maine Christian Association Building, which also serves as a union building for student activities.

YOUNG WOMEN'S CHRISTIAN ASSOCIATION.—This voluntary organization is a fellowship designed to associate young women in personal loyalty to Christ, to promote growth in Christian character and service, and to become a force for the extension of the Kingdom of God. It coöperates with the Maine Christian Association in various activities as outlined above.

Students receive a cordial welcome at the services of the three churches of Orono,—the Methodist Episcopal Church, the United Parish Church (Con-

gregational and Universalist), and St. Mary's Roman Catholic Church. Other denominations are represented at Old Town and Bangor. The University Christian Associations conduct regular vesper services, with outside speakers, and other voluntary religious meetings, including occasional special assemblies with addresses of an inspirational character.

National Honor and Professional Societies

Рні Карра Рні.—The society of Phi Kappa Phi, founded at the University of Maine in 1897, is a national honor society that aims to recognize excellence in any field of knowledge. At the end of the junior year and near the beginning of the senior year it elects to membership a total of seven of the highest ranking members of the class. In the second semester of the senior year it elects several additional members of the class who meet its standards.

ALPHA ZETA.—The Maine chapter of Alpha Zeta, the national agricultural fraternity, was organized at the University in 1905. Chapters exist in thirty-four other universities. Membership is honorary and is restricted to students attaining high class standing or to graduates who have shown marked ability along the lines of agricultural study and research.

PHI BETA KAPPA.—This is the oldest national honorary scholarship society. It was founded at the College of William and Mary in 1776 and aims to promote scholarship in the liberal arts. A chapter was granted to the College of Arts and Sciences of the University of Maine in 1922. Elections to membership are based upon scholarship, breadth of culture, and general promise.

TAU BETA PI.-Tau Beta Pi is an honor fraternity for engineers and has chapters in leading universities and technical schools. Elections are made from those juniors and seniors in engineering who have shown high mental and moral qualifications.

ALPHA CHI SIGMA.—Alpha Chi Sigma is a professional fraternity with chapters in various American colleges and universities. The members are elected from those whose major work is in the Department of Chemistry and Chemical Engineering. Two meetings are held monthly.

AMERICAN CHEMICAL SOCIETY.-The Maine Section of the American Chemical Society has its headquarters at Orono. Students in the Department of Chemistry and Chemical Engineering may become student members, and all interested in chemistry are welcome to its meetings.

STUDENT BRANCH OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS .--

STUDENT ACTIVITIES

This branch of the society is composed of the students who are enrolled in the curriculum in Civil Engineering. The object of the society is to investigate by reading and discussion the various engineering topics of the day. Monthly lectures are given under its direction by members of the faculties of this and other institutions and by practicing engineers. The affairs of the branch are controlled by the students under the advice of the department.

BRANCH OF THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS.—This organization is for the purpose of promoting interest in electrical engineering and for fostering acquaintance and good fellowship among the faculty and students of the Electrical Engineering Department. The membership consists of members of the teaching staff, graduate students, seniors, juniors, and sophomores of this department. Talks and lectures are given at stated periods during the year by members of the branch and practicing engineers.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—An organized student branch of this society holds regular meetings for the presentation and discussion of engineering papers by members and by visiting engineers.

BETA PI THETA.—This is an honorary society with a national charter into which are elected students in French with an outstanding record of scholarship.

KAPPA PHI KAPPA.—A national educational fraternity of which the first chapter was founded at Dartmouth in 1922. It became a national fraternity the same year and now has eighteen chapters. It is an honorary professional fraternity. Membership is restricted to men who intend to make teaching their profession and who have a high scholastic record and have taken at least six semester hours in Education.

PHI SIGMA.—A national honor society for students doing major work in biology, and who have completed a certain number of subjects with honor grade.

SCABBARD AND BLADE.—Scabbard and Blade is an honorary military fraternity. Active membership is restricted to cadet officers of high moral and scholastic standing. Honorary members may be elected from commissioned officers of the United States Army; also non-military persons deemed worthy of the honor. The University of Maine company (Co. D., 2nd Reg't.) was organized in 1916. Companies exist in sixty-eight other colleges and universities.

XI SIGMA PI.—The Gamma Chapter of Xi Sigma Pi, a national honorary forestry fraternity, was organized at the University of Maine in 1917. The membership is open to upper class students in forestry who possess the proper qualifications.

Departmental Clubs

AGRICULTURAL CLUB.—This organization is composed of students taking agricultural courses. Meetings are held twice each month thruout the college year, at which important agricultural topics are discussed by members of the club, and also by prominent speakers from this and other states.

CERCLE FRANÇAIS.—The object of the Cercle Français is to cultivate the spoken French language and arouse and stimulate an interest in the intellectual life of France. The work is carried on in French. Papers are read and discussed and addresses delivered by the members. Plays are studied with a view toward production in French. The Cercle meets once in two weeks.

CIRCULO ESPANOL.—This organization was established in 1921 to afford additional practice in the use of the Spanish language, and to promote a knowledge of the culture of Spain as well as of the Spanish-American nations. Meetings are held ordinarily every two weeks. The public representation of a Spanish play or a festival consisting chiefly of Spanish music is an annual event.

COLLEGE 4-H CLUB.—This organization is composed of students who have completed one or more years of Boys' and Girls' Agricultural and Home Economics Club Work. It was organized in 1924 to increase the interest in Club Work and to strengthen the friendships of College 4-H men and women. Meetings are held in October, January, and May.

CONTRIBUTORS' CLUB.—This organization, composed of students and members of the faculty who have shown ability in writing, has as its object the cultivation of the literary talents of its members and the general encouragement of literary effort in the University community. Meetings are held twice monthly, at which original stories, essays, and poems are read and criticized by the members. The club publishes the University literary magazine, the Maine-Spring, and brings to the campus each year some distinguished speaker for a literary lecture.

DELTA SIGMA MU.—This is a local honorary forensic fraternity, which was established here in 1922. The fraternity chooses its members from those men who have represented the University in inter-collegiate debate. Delta Sigma Mu represents the students' interests, in cooperating with the director of debate and in assisting with the various forensic contests of the year. The president and secretary of this organization are automatically president and secretary of the University of Maine Debating Council.

DEUTSCHER VEREIN.—The purpose of this society is to stimulate interest in the various phases of German life and literature, and to afford practice in speaking German. Meetings are held once a month.

STUDENT ACTIVITIES

FORESTRY CLUB.—All students majoring in the curriculum in forestry are eligible for membership in the Forestry Club. The purpose of the club is to give an opportunity for presenting informal discussions and technical papers on forestry subjects, and to promote coöperation and general good fellowship among the forestry students. The meetings are held monthly.

HOME ECONOMICS CLUB.—This organization is composed of students majoring in home economics. The object of the society is to keep in touch with current problems in home economics, and to develop a professional interest in the field. The club is affiliated with the American Home Economics Association. Meetings are held once each month.

KAPPA GAMMA PHI.—This is a local honorary journalistic fraternity, organized in 1924. The fraternity is made up of members of the Campus, Maine-Spring, and Prism boards and conducts an annual State Journalistic Conference for secondary school editors in Maine.

THE LANGUAGE CONFERENCE.—Meetings are held monthly at which papers are read by members of the faculty and graduate students who are interested in ancient or modern languages and literatures.

MAINE MASQUE.—This is a dramatic club which aims to make a practical study of the acted drama, and to present each year several plays before the public. All undergraduates are eligible to the organization. The Masque considers for membership all students who have participated in one or more plays, or who for at least a year have helped in the stage production of these plays.

PI PI KAPPA.—Pi Pi Kappa is a local fraternity, the members of which are elected from the faculty and higher ranking students majoring in the Department of Economics and Sociology. The purpose of the organization is to stimulate interest in economic, political, and social problems.

MATHEMATICS CLUB.—All students majoring in mathematics and others who are interested in the study of the subject are eligible for membership in the Mathematics Club. The purpose of this club is to stimulate interest in the study of mathematics and to give to mathematics students the opportunity to present papers and take part in discussions. Meetings are held monthly.

PHYSICS CLUB.—Members of the faculty and students who are taking courses in physics or allied subjects are eligible to membership in this organization. Meetings are held every two weeks at which papers are presented and current topics are discussed.

Musical Organizations

UNIVERSITY BAND.—This is a military and concert organization attached to the Cadet Corps. It is composed of students in the military department,

and rehearsals are conducted by the director of music as regular class work, for which the men receive credit. The band plays for various university functions and games and makes concert trips to nearby cities and towns.

UNIVERSITY CHORUS.—This organization, open to both men and women students, has for its objective both the study and public performance of choral music. Participation in college assemblies, student concerts, and the annual Bangor Music Festival is a part of the program. The festival privilege is a rare one, such as few universities can offer. The sharing in programs with world-famous musicians and concert artists renders this choral work inspiring and memorable. The chorus is conducted by the director of music as class work, for which students receive credit. Conditions of membership are listed under the Department of Music (Courses 25, 26).

MUSICAL CLUBS.—A glee and instrumental club is maintained by the men students and concert trips are taken at intervals during the college year.

Social Fraternities and Sororities

The following fraternities and sororities have chapters, the figures in parenthesis giving the dates chapters were established at the University.

FRATERNITIES.—National: Beta Theta Pi, (1879); Kappa Sigma, (1886); Alpha Tau Omega, (1891); Phi Kappa Sigma, (1898); Phi Gamma Delta, (1899); Sigma Alpha Epsilon, (1901); Sigma Chi, (1902); Theta Chi, (1907); Delta Tau Delta, (1908); Lambda Chi Alpha, (1913); Sigma Nu, (1913); Sigma Phi Sigma, (1921); Phi Mu Delta, (1923); Alpha Gamma Rho, (1924); Beta Kappa, (1926); Phi Kappa, (1926). Local: Phi Eta Kappa, (1906); Eta Nu Pi, (1926).

SORORITIES.—National: Alpha Omicron Pi, (1908); Phi Mu, (1912); Delta Delta Delta, (1915); Pi Beta Phi, (1920); Chi Omega, (1921); Delta Zeta, (1924). Local: Kappa Psi, (1923); Sigma Theta Rho, (1924); Sigma Tau, (1927).

Student Publications

MAINE CAMPUS.—This is a newspaper published weekly during the academic year by an editorial board composed of students.

PRISM.—The Prism is an illustrated annual published by the junior class. THE MAINE-SPRING.—This is a literary magazine published four times a year by the Contributors' Club.

Debating

The Debating Society is open to all students interested in forensic work. Questions of public interest are discussed. During the year the society

STUDENT ACTIVITIES

meets once a week to study questions, to debate, and to speak. They make a special study of the questions used for inter-collegiate debating. From this group representatives are chosen to speak before luncheon clubs, and to participate in the inter-collegiate debates.

The University of New Hampshire, the State College of Rhode Island, and Colby College are among the institutions usually scheduled for these debates, which are frequently of a dual nature. For the 1928-1929 season debates have been arranged with Bucknell and Pittsburgh Universities, both of which will take place on the University of Maine Campus. Members of this society are selected to represent the University on a debating tour of Eastern institutions.

The society is controlled by a Debating Council, composed of three secretaries, a president, and the director of debate. It is the duty of this Council to direct the procedure of the forensic activities, including the forming of the debating schedule for both the men and women.

Those interested in inter-collegiate debating should join this society.



ADMISSION

METHODS OF ADMISSION

GENERAL REQUIREMENTS.—Candidates for admission should apply to the Dean of the University for an application card and other necessary blanks. They must present satisfactory certificates of fitness, or pass the required examinations, and on registration day make a cash deposit covering the bills of one semester.

Each candidate must file with the application a certificate, signed by his or her family physician, that the candidate's health is equal to the demands of college work. This certificate is to be on a blank furnished by the University. It is requested that all entering students submit a cerificate from a physician stating that they have been vaccinated for smallpox within the past seven years, or be vaccinated at the time of their physical examination. The University admits men and women, both residents of Maine and non-residents. Applications from women not residents of the State, whether candidates for freshman or advanced standing, will not be acted upon until July 1st of the year in which they intend to enter. Maine women should apply before that date. The University reserves the right to terminate admissions of both men and women whenever the capacity of the University to properly care for the students has been reached.

ADMISSION TO ADVANCED STANDING.—Candidates for advanced standing are examined in the preparatory studies, and in those previously pursued by the classes they wish to enter, or in other equivalent studies. Certificates from approved schools are accepted for the preparatory work, but certificates are not accepted for any part of the college work, unless such work has been done in a college. Students transferring from another college must present a letter of honorable dismissal.

SPECIAL STUDENTS.—Persons twenty-one years of age, not candidates for a degree, may be admitted as special students, if they give satisfactory evidence that they are prepared to take the desired subjects.

ADMISSION TO SHORT COURSES.—Candidates for admission to the Two-YEAR COURSE IN AGRICULTURE must be over fifteen years of age and prepared for advanced grammar or high school work.

Admission of Graduates from Class A Schools in Maine

Graduates from Maine high schools and academies placed by the State Commissioner of Education in Class A, may be admitted upon their school

ADMISSION

records under the restrictions shown in the next paragraph, provided they have pursued a course of study including all the subjects required for admission to the curriculum that they propose to follow, and a sufficient number of elective subjects to make a total of fifteen units.

A candidate will not be admitted whose average rank for the high school course does not exceed the school pass mark by the margin shown in the following tabulation:

Pass mark of school	Candidate not admitted if rank is below	Candidate may be ad- mitted on trial if rank lies between
60	68	68 and 76
65	72	72 and 79
70	76	76 and 82
75	80	80 and 85
80	84	84 and 88

Additional Information About Candidates

In addition to the school record, the following information is asked for: A. Information from the student. The student is asked to answer on a blank furnished by the University, a series of questions showing his favorite studies, his school activities, his choice of a life work, reasons for this choice, his seriousness of purpose, and other matters bearing upon his preparation for college life.

B. The principal, and two teachers named by the student, are asked to give details regarding his character, class standing, activities, and general fitness for pursuing a college course.

C. A personal interview will be held with each candidate. In case of candidates from Maine schools these interviews will be held, so far as practicable, at the school.

The information gained from the interviews and from the information sheets furnished by candidate, principal, and teachers will be used to supplement the school record in determining whether the candidate shall be admitted.

A student admitted on trial may be dropped from the University at any time if his work is reported as unsatisfactory. The student's record will be carefully reviewed at the end of eight weeks and again at the end of the first half year, and the student will be placed in full standing, continued on the trial list, or required to withdraw, according to his record. While on trial, a student is not eligible to represent the University in any competition with students from other institutions.

Admission from Schools Outside of Maine

Principals of schools situated outside of Maine who desire the certificate privilege must make application to the Dean of the University, and must furnish satisfactory evidence that the course of study in the school and its standards meet the requirements for admission. Blank forms for this purpose will be supplied on request.

Certificates will not be accepted for non-graduates except in unusual cases, and then only provided the candidate is expressly recommended for admission by the principal of the school from which he comes. Certificates must be made out on blanks furnished by the University.

Certificates issued by the Regents of the University of the State of New York are accepted for any of the subjects in which we give admission credit and which are certified as having been passed with a satisfactory grade.

Admission by Examinations

Entrance examinations are held at Orono, beginning four days before the fall registration of freshmen, and during the last week in May. A schedule of the examinations will be furnished on request. Candidates for admission by examination should present statements from their school principals regarding their fitness to take the examinations and to undertake college work.

The examinations given by the College Entrance Examination Board will be accepted by the University. These examinations will be held during the week June 17-22, 1929. All applications for these examinations must be addressed to the Secretary of the College Entrance Examination Board, 431 West 117th Street, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the Board upon application. Applications must be made before May 27 and must be accompanied by' the examination fee of \$10.00.

REQUIRED SUBJECTS

College of Arts and Sciences

English	units
Foreign languages (four years in one or two in each of two)4	9 3
History1	,,
Mathematics (Algebra and Plane Geometry)2	"
Total	units

ADMISSION

College of Agriculture

English	units
*Algebra1	"
	,,
Science (including laboratory notebook)1	"
History1	"

College of Technology

English	units
Foreign language (two years in one)2	>>
Algebra	22
Plane and Solid Geometry $1\frac{1}{2}$,,,
History	**
Science	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

ELECTIVE SUBJECTS

A total of fifteen units is required for admission to any four year curriculum. The units not named above under required subjects may be selected as shown in the following table. Subjects not listed may be accepted among the electives, provided they represent a satisfactory equivalent for any of those listed.

*For admission to the Home Economics curriculum, two units in mathematics acceptable to the Committee on Administration are required.

The required units and the units that may be accepted in various subjects in the respective colleges are shown in tabular form.

	Un	lits	Units required and units accepted in the several colleges						
SUBJECTS	Accepted		1	rts and ciences	Agriculture		Technology		
•	Min. Max.		Req. Acc.		Req. Acc.		Req. Acc.		
English	3	3	3	3	3	3	3	3	
French German Greek Latin Spanish	*2 2 2 2 2	4 4 3 4 3	Four units in one language or two in each of two	2, 3, or 4 2, 3, or 4 2 or 3 2, 3, or 4 2 or 3		1, 2, 3, or 4 1, 2, 3, or 4 1, 2, or 3, 1, 2, 3, or 4 1, 2, or 3,	Two units in one languagett	1, 2, 3, or 4 1, 2, 3, or 4 1, 2, or 3, 1, 2, 3, or 4 1, 2, or 3,	
Algebra (Elem.) Plane geometry Solid geometry Trigonometry Algebra (Adv.)	1 1 15 15 15 15 15	**2 1 1/2 1/2 1/2 1/2	1 1	2 1 15 15 15 15 15 15	§1 §1	2 1 1 5 1 5 1 2 1 2	2 1 1/2	2 1 39 32 32 38	
History Civics Economics	1 14 14 14 14	4 1 1	1	1, 2, 3, or 4, ^{1/2} or 1 ^{1/2} or 1	1	1, 2, 3, or 4 32 or 1 32 or 1	1	1, 2, 3, or 4 32 or 1 32 or 1	
Biology Botany Chemistry Physics Physiography Physiology Zoology General Science	$ \begin{array}{c} $	1 1 2 2 1 1 1 1 1		1 1 or 2 1 or 2 1 or 2 1 2 1 2 2 0r 1 1 2 2 or 1	One unit in Science	1 1 or 2 1 or 2 1 or 2 1 2 2 2 2 2 2 0 r 1 1 2 2 0 r 1 1 2 2 0 r 1	One unit in Science	1 1 1 or 2 1 or 2 1 or 2 1 2 2 or 1 1 2 2 or 1 1 2 4 or 1	
Agriculture Domestic Science and Art Drawing Manual Training Commercial Subjects	1 1 1 1 5 5 1 5 2	4 4 2 2 4		Not over two units in all of these		Not over five units in all of these		Not over four units in all of these	
Mu sic Bible Study Debating	14 14 14 14 1/2	1 1 1		¹ / ₂ or 1 ¹ / ₂ or 1 ¹ / ₂ or 1		1/2 or 1 1/2 or 1 1/2 or 1 1/2 or 1		½ or 1	

*The minimum accepted in foreign languages applies to the College of Arts and Sciences only.

****Two units credit for elementary algebra completed.** Technology candidates are expected to take some mathematics during their last year in school.

†The work in these subjects must include laboratory work with notebook, as specified in the detailed statement.

‡Credit for these subjects and for bookkeeping and typewriting is at the rate of one-half unit for a subject taken five forty-five minute periods per week for a year.

§See foot-note at bottom of page 47.

††Latin or French preferred.

REQUIREMENTS IN DETAIL

English

The entrance examination in English presupposes a study of English literature and of composition and rhetoric pursued thruout the preparatory school course. Candidates are expected to have had practice in writing equivalent to at least one composition a week during each of the four years in high school, and to have studied the elements of rhetoric in some such text as, for example, Tanner's *Rhetoric and Composition*.

The examination is designed mainly to test the candidate's ability to express his thoughts correctly and clearly. It is quite possible to answer all questions on the literature correctly, and yet fail on the examination as a whole because of crude and ungrammatical English. Prospective candidates are advised to give special attention to spelling, punctuation, grammatical correctness, idiomatic words and phrases, and sentence and paragraph formation.

Grammar and Rhetoric.—The examination will include questions on the syntax of sentences and general grammatical principles, and on the elementary principles of rhetoric.

Composition.—The writing of short compositions, on topics based on the classics studied in high school or on the student's personal experiences, is required.

Literature.—A portion of the examination will be devoted to questions on the works in English and American literature customarily studied in high school. A list of books recommended by the Conference on Uniform Entrance Requirements in English may be obtained on application to the Registrar.

Foreign Languages

LATIN.—The entrance examination in Latin will consist of four parts as follows:

1. An examination on the elements of Latin grammar and easy translations.

2a. An examination in sight translation of Latin prose suited to test the ability of a candidate who has read Cæsar for not less than one semester and selections from easy Latin prose for the remainder of a year.

2b. Questions on the ordinary forms and constructions of Latin grammar and the translation of easy English sentences into Latin.

3a. An examination in sight translation of Latin prose suited to test the ability of a candidate who has read Cicero for not less than one semester and such authors as Pliny, Sallust, and Livy for the remainder of a year.

3b. A test in writing simple Latin prose which shall demand a thoro knowledge of all regular inflections, all common irregular forms, and the ordinary syntax and vocabulary of the prose authors commonly read in school.

4. An examination in sight reading of Latin poetry suited to test the ability of a candidate who has read Virgil for not less than one semester and selections from Ovid and other poets for the remainder of a year.

In both 3 and 4 the examination will include questions in grammar and subject matter of the passages set.

FRENCH.—The admission requirements in elementary and intermediate French are those recommended by the Modern Language Association of America.

I. Elementary French.—At the end of the second year the pupil should be able to pronounce French accurately, to read at sight easy French prose, to put into French simple English sentences taken from the language of everyday life or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar as defined below.

The first year's work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural of nouns, the pronouns, common adverbs, prepositions, and conjunctions, order of words in the sentences, and elementary rules of syntax; (3) abundant easy exercises, designed not only to fix in memory the forms and principles of grammar, but also to cultivate readiness in reproducing natural forms of expression; (4) the reading of 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English), and in reproducing from memory sentences previously read; (5) writing French from dictation.

ADMISSION

The second year's work should comprise: (1) the reading of 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (2) constant practice, as in the previous year, in translating into French easy variations upon the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (4) writing French from dictation; (5) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (6) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

Suitable texts for the second year are: About, le Roi des montagnes; Bruno, le Tour de la France; Daudet, easier short tales; De la Bedolliere la Mere Michel et son chat; Erckmann-Chatrian, novels; Foa, Contes biographiques and le Petit Robinson de Paris; Foncin, le Pays de France; Labiche et Martin, la Poudre aux yeux and le Voyage de M. Perrichon; Legouve et Labiche, la Cigale chez les fourmis; Malot, Sans famille; Mairet, la Tâche du petit Pierre; Merimee, Colomba; extracts from Michelet; Sarcey, le Siege de Paris; Jules Verne's stories.

II. Intermediate French.—At the end of the third year the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thoro knowledge of syntax than is expected in the elementary course.

This should comprise the reading of 400 to 600 pages of French of ordinary difficulty, a portion to be the dramatic form; constant practice in giving French paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate proportions; writing from dictation.

Suitable texts are: About, novels; Augier et Sandeau, le Gendre de M. Poirier; Beranger, poems; Corneille, le Cid and Horace; Coppee, poems; Daudet, la Belle Nivernaise; La Brete, Mon oncle et mon cure; Madame de Sevigne, letters; Victor Hugo, Hernani and la Chute; Labiche, plays; Loti, Pecheur d'Islande; Mignet, historical writings; Racine, Andromaque and Esther; George Sand, novels; Sandeau, Mademoiselle de la Seigliere; Scribe, plays; Thierry, Recits; Vigny, la Canne de jonc; Voltaire, historical writings.

At the end of the fourth year the pupil should be able to read at sight, with the help of a vocabulary of special or technical expressions, difficult French not earlier than that of the seventeenth century; to write in French a short essay on some simple subject connected with the works read; to put into French a passage of easy English prose, and to carry on a simple conversation in French.

This should comprise the reading of from 600 to 1,000 pages of standard French, classical and modern, only difficult passages being explained in the class; the writing of numerous short themes in French; the study of syntax.

Suitable reading matter will be: Beaumarchais, le Barbier de Seville; Corneille, dramas; Dumas pere, prose writings; Dumas fils, la Question d'argent; Victor Hugo, Ruy Blas, lyrics, and novels; La Fontaine, Fables; Lamartine, Graziella; Marivaux, plays; Moliere, plays; Musset, plays and poems; Pellissier, le Mouvement litteraire au XIX^e siecle; Renan, Souvenirs d'enfance et de jeunesse; Rousseau, writings; Sainte-Beuve, essays; selections from Zola, Maupassant, and Balzac.

The examination of the College Entrance Certificate Board in elementary French will be accepted for two units, and that in intermediate French for one additional unit.

GERMAN-Elementary.-The first year's work should comprise: careful drill upon pronunciation and oral work; the rudiments of grammar including the inflection of nouns, pronouns, and adjectives; the conjugation of the more common weak and strong verbs; the use of the more common prepositions; the conjugation and meanings of the modal auxiliaries; the elementary rules of syntax and word-order; dictation and elementary composition; the reading of 75 to 100 pages of prose and poetry.

The second year's work should include the continued study of the grammar and composition, and the reading of 150 to 200 pages of literature.

The advanced German should include constant practice in conversation and composition, and the reading of about 400 pages of moderately difficult prose and poetry.

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SPANISH-Elementary.-The equivalent of Courses 1 and 2 offered by the University. The first year's work should comprise: careful drill in pronunciation; the rudiments of grammar, including the conjugation of the regular and more common irregular verbs; exercises containing illustrations of the principles of grammar; dictation; the translation of simple Spanish when spoken; sufficient translation from English to Spanish to illustrate the principles of grammar; the reading of about 125 pages of modern prose. In the second year in addition to the continued study of the grammar and the use of suitable exercises similar to those employed in the preceding year there should be read from 300 to 400 pages belonging to modern Spanish literature.

History

The admission requirements in history are based on the recommendations of the Committee of Seven. The student will be expected to show

ADMISSION

judgment as well as memory and be able to make comparisons and give summaries. Some knowledge of geography is required, and collateral reading is essential.

I GREEK HISTORY.—To the death of Alexander with due consideration of Greek life, literature, and art.

II ROMAN HISTORY.—To 800 A.D. with emphasis on government and institutions.

III ENGLISH HISTORY.—A general knowledge of the political and social development of England; in particular the growth of the limited monarchy with parliamentary government and the British Empire and Commonwealth.

IV AMERICAN HISTORY.—Including civics and with especial attention to social and economic life.

V MEDIEVAL HISTORY.-To 1500.

VI MODERN EUROPEAN HISTORY.—From 1500 to the present.

Mathematics

The definitions of the requirements in mathematics given here are essentially those published by the College Entrance Examination Board. A pamphlet giving fuller details of the requirements can be requirement from the secretary of that Board.

ALGEBRA TO QUADRATICS.—One unit.

(1) The meaning, use, evaluation, and necessary transformations of simple formulas involving ideas with which the pupil is familiar, and the derivation of such formulas from rules expressed in words.

(2) The graph, and graphical representation in general. The construction and interpretation of graphs.

(3) Negative numbers; their meaning and use.

(4) Linear equations in one unknown quantity, and simultaneous linear equations involving two unknown quantities, with verification of results. Problems.

(5) Ratio, as a case of simple fractions; proportion, as a case of an equation between two ratios; variation. Problems.

(6) The essentials of algebraic technique.

(7) Exponents and radicals; simple cases.

(8) Numerical trigonometry.

QUADRATICS AND BEYOND.—One unit.

(1) Numerical and literal quadratic equations in one unknown quantity. Problems.

(2) The binomial theorem for positive integral exponents, with applications.

(3) Arithmetic and geometric series.

(4) Simultaneous linear equations in three unknown quantities.

(5) Simultaneous equations, consisting of one quadratic and one linear equation, or of two quadratic equations of certain types. Graphs.

(6) Exponents and radicals.

(7) Logarithms.

PLANE GEOMETRY.—The usual theorems and constructions of good text-books, including the general properties of plane rectilinear figures; the circle and the measurements of angles; similar polygons; areas, regular polygons, and the measurement of the circle.

SOLID GEOMETRY.—The usual theorems and constructions of good textbooks, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle.

TRIGONOMETRY.—Definitions and relations of the six trigonometric functions as ratios; circular measurement of angles; proofs of principal formulas; in particular for the sine, cosine, and tangent of the sum and the difference of two angles, of the double angle and the half angle; the product expressions for the sum or the difference of two sines or of two cosines, etc.; the transformation of trigonometric expressions by means of these formulas; solution of trigonometric equations of a simple character; theory and use of logarithms (without the introduction of work involving infinite series); the solution of right and oblique triangles, and practical applications.

ADVANCED ALGEBRA.—Permutations and combinations, limited to simple cases; complex numbers, with graphical representation of sums and differences; determinants, chiefly of the second, third, and fourth orders, including the use of minors and the solution of linear equations; numerical equations of higher degree, and so much of the theory of equations, with graphical methods, as is necessary for their treatment, including Descartes's rule of signs and Horner's method, but not Sturm's functions or multiple roots.

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Sciences

BIOLOGY.—This may consist of a continuous course for one year dealing with the problems of general biology, including the study of the structure, functions, and habits of both plants and animals; a course for one year in botany alone; a course for one year in zoology alone; or a course for one-half year in human physiology. The human physiology may be arranged to form a part of the general biology, or of the zoology; but in such cases it must be treated as an integral part of the subject under consideration.

ADMISSION

The requirements in botany and zoology are the same as those of the College Entrance Examination Board, and are outlined in the syllabus of the Board. The note-book should include properly labeled drawings, and descriptions of experiments, representing as much of the work in this syllabus as may be practicable, and should be the record of a year's laboratory work in the subject. The making of an herbarium is optional.

CHEMISTRY.—The necessary ground is covered by the first textbooks in chemistry, such as: Brownlee and others, Hessler and Smith, McPherson and Henderson's *First Book in Chemistry*, Newell, and Black and Conant. Records should be kept in permanent note book form.

The work in chemistry must include at least ninety hours of class room work and a full year of individual laboratory work of two double class periods weekly. The laboratory requirement is not limited to a specific number of experiments or exercises but must include a broad general training. The note book must be certified by the instructor and presented as evidence to the Department of Chemistry and Chemical Engineering during Freshman Week. Candidates who make good records in the placement test in chemistry and present satisfactory note books are qualified for Advanced General Chemistry.

Рнузісац Geography (Рнузіодгарну).—A satisfactory preparation may be obtained from Davis's *Physical Geography* or one of similar grade.

PHYSICS.—The work usually covered in one year in a good fitting school. This must include a certified note-book exhibiting the results of experimental work performed by the student. Forty exercises are required. The principal is expected to pass upon the quality of the note book rather than send it to the University.

REGISTRATION

FRESHMEN.—All members of the incoming freshman class are RE-QUIRED to be in residence on the campus for the period of September 11-16, 1929, inclusive. This period is known as Freshman Week. Following the general plan employed for the past six years, it will be devoted to tests of various sorts whereby the University authorities may obtain more accurate information concerning the type and degree of mental qualifications of the new students, and to lectures and demonstrations by which the students may be more intelligently informed of the University and its customs.

NO EXCUSES FOR NON-ATTENDANCE OTHER THAN ILL-NESS CERTIFIED TO BY A PHYSICIAN IN GOOD STANDING WILL BE ACCEPTED.

UPPER CLASSMEN.—In the fall semester of 1929 upper classmen will be required to register on September 17 or to present written evidence that they have been excused from so registering by the University authorities. In other words, upper classmen must, before September 17, have communicated with the dean of their college giving him their reasons for desiring to register late, and have received from him written authorization so to do. If they have tried to communicate with him and have received no reply from him, it will not be considered that sufficient excuse for late registration has been given. Late registration is a handicap both to students and to University authorities and will be rigidly discouraged wherever and whenever possible.

STUDENT EXPENSES

The estimates are prepared upon the basis of students living in University halls.

	Students fro the Sta		Students from without the State		
Tuition Text books Board 36 weeks @ 6.00 Room in Dormitory Special Assessment for	\$125.00 25.00 to 216.00 54.00	50.00	\$195.00 25.00 216.00 54.00	to	50.00

Estimate of Annual Expenses

Athletics & Debating Health Service Fee	10.50 2.00			10.50 2.00		
	\$432.50	to	\$457.50	\$502.50	to	\$527.50

The tuition for students taking the Two-Year Course in Agriculture is \$70.00 a year. Such students do not pay the special assessment for athletics and debating.

APPLICATION FOR ADMISSION

A fee of \$10.00 is required at the time of application. Checks should be made payable to the University of Maine. This fee is refunded if the applicant is not admitted. When the applicant enters the University the fee will be applied toward payment of the first semester's tuition.

EXPENSES

Application for Room

A deposit of \$15.00 is required at the time application is made for a room. If a student is unable to enter, the deposit will be refunded provided the room is given up on or before August 1. If notice of withdrawal is given on or before September 1st, \$10.00 will be refunded. In case of withdrawal after September 1, the entire deposit is forfeited, but may be applied toward the payment for a room if the applicant enrolls in the University the following year.

When a student enters the University the deposit of \$15.00 will be applied toward payment of dormitory charges.

Special Charges

A fee of \$2.00 is charged a student for each special examination.

Students registering after the prescribed day of registration for the fall or spring semester shall pay an additional fee of two dollars.

No laboratory fees are charged in any department.

Rooms

The rooms in the Mt. Vernon House, Balentine Hall, Oak Hall, and the middle section of Hannibal Hamlin Hall accommodate two students each. All other rooms accommodate four students each.

Dormitory charges include steam heat and electric lights. The rooms

in the dormitories for men are furnished with beds, mattresses, chiffoniers, desks, and chairs. Each resident in the dormitory has bed linen and three towels laundered each week without extra charge. Students furnish pillows, bed linen, and blankets.

Women students not living at home are required to live in one of the women's dormitories. In exceptional cases women students are allowed to live at some boarding house approved by the President.

Applications for dormitory rooms should be addressed to the Registrar.

GYMNASIUM UNIFORM FOR WOMEN

Every woman will be expected to purchase a prescribed uniform before coming to college. Information regarding uniform and place where it can be bought will be sent with application blanks. The approximate cost of the uniform is \$15.00.

DEPOSITS TO COVER EXPENSES

The University requires all students to pay in advance. The payments indicated below are required at the beginning of each semester.

Deposit	Residents of Maine	Non-Residents of Maine
Tuition	\$ 62.50	\$ 97.50
Board and Room	135.00	135.00
Key Deposit (men only)	5.00	5.00
Military Deposit (required of all men		
taking military instruction)	30.00	30.00
Special Assessment for		
Athletics and Debating	5.25	5.25
Health Service Fee	1.00	1.00
Freshman Week (Freshmen only)	7.50	7.50
	\$246.25	\$281.25

For students who do not room and board in University halls the above amounts are reduced by \$140.00.

All men taking military are required to make a deposit of \$30.00 to cover cost of equipment. This deposit is returned at the end of the year, less a charge for lost or misused equipment.

For students in the Two-Year Course in Agriculture the deposit required for tuition is \$35.00.

Communications

Communications with reference to financial affairs of students should be addressed to the Treasurer of the University of Maine.

LOAN FUNDS

KITTREDGE FUND.—This fund, amounting to nearly two thousand dollars, was established by Nehemiah Kittredge, of Bangor. It is in the control of the President and the Treasurer of the University, by whom it is loaned to needy students in the three upper classes. In the deed of gift it was prescribed that no security but personal notes bearing interest at the prevailing rate should be required. Loans are made on the conditions that the interest be paid promptly. and that the principal be returned from the

LOAN FUNDS

first earnings after graduation. Individual loans are limited to \$50.00.

BOSTON ALUMNAE FUND.—This is a fund now amounting to about \$470, available for women of high scholastic standing who have completed at least two years of college work. Loans are made at the discretion of the faculty Committee on Honors, and shall in no case exceed \$200. The recipient is required to sign a promissory note on which interest at the current rate is charged; she is expected to begin payment immediately upon leaving college and to complete the same within two years.

MAINE CAMPUS FUND.—The editorial board of the Maine Campus has started a loan fund to assist needy and deserving students by making an initial contribution of \$100. The administration of this fund is in the hands of a committee consisting of the treasurer of the University and the custodian, the editor in chief and business manager of the Campus. Only juniors and seniors whose conduct and scholarship are satisfactory shall be eligible to receive loans, and preference shall be given to those interested in the literary activities of the University. Loans may be made in amounts up to \$50.00, and shall bear interest at the rate of four per cent while the recipient is in college and six per cent thereafter until paid. Notes given for loans must have the endorsement of a second party of established responsibility and financial standing. It is expected that payment will be made from the first earnings after graduation or withdrawal from college. In granting aid serious consideration shall be given as to whether this action will react to the best development of the student's character.

CLASS OF 1926 LOAN FUND FOR SENIORS.—This fund, the gift of the class of 1926, amounting to over \$1000 is loaned to seniors of good scholastic standing during the last semester of their senior year. Amount loaned is \$50.00 per person, exceptional cases to be allowed \$100.00. Payment of such loan is to be made before March 1st of the following year, with interest at the prevailing rate. The fund is under the same control as the Kittredge Fund. WOMEN'S LOAN FUND.—This fund was inaugurated by the American Association of University Women, University of Maine Branch, in 1925. It provides for loans to undergraduate women of the University who have successfully completed one or more years of university work, and have been found by the University to be thoroly satisfactory in regard to character, scholarship, and general ability, and to be in genuine need. The fund amounts at present to \$650.00, and loans to one student shall not exceed \$100 a year. When the fund reaches \$1000, the maximum loans shall automatically become \$200 to one student per year. Loans bear interest at the rate of four per cent, and are made at the discretion of a committee of the local branch of the Association.

MARY S. SNOW MEMORIAL FUND.—Students and friends of Mary S. Snow, one-time superintendent of schools in Bangor, and later a leader in

home economics education, have established as a tribute to her memory a loan fund to be used in helping earnest and deserving young women secure a home economics education at the University of Maine. The fund at present amounts to \$3100. and is administered by a committee consisting of the President of the University, the Dean of the College of Agriculture, and the head of the Home Economics Department. Loans may be granted to young women of such character and scholarship as give promise that the education thus made possible will be of genuine value to the students and to society. Interest is charged at the rate of three per cent while the student is in school, six per cent thereafter. Conditions of repayment shall be made for the individual student on the basis of her obligation to contribute to the education of other students by repayment as soon as possible after graduation.

AMERICAN PULP AND PAPER MILL SUPERINTENDENTS' ASSOCIATION FUND.—This fund amounts to \$2500. The income is to be used to improve instruction and aid investigations in pulp and paper chemistry and technology, to develop cooperation between pulp and paper mill superintendents and young technical graduates, or to be loaned to meritorious students pursuing the pulp and paper course. A report is to be made annually to the Association.

DRUMMOND FUND.—This fund of \$1000 was established in memory of Frank Hayden Drummond, of Bangor, by his widow and children. It is in control of the President and the Treasurer of the University by whom it is loaned to needy students of good character and an average of C or its equivalent. Loans shall bear interest at five per cent, and the principal must be paid from the first earnings after leaving the University.

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SCHOLARSHIPS AND PRIZES

TRUSTEE SCHOLARSHIPS. Three scholarships of the value of a year's tuition have been established by the Board of Trustees, one of which is awarded annually to a student in each of the three colleges composing the University. Beneficiaries of these scholarships must be residents of Maine. A fourth scholarship is awarded to a student in any of the three colleges without restriction as to residence. The chief consideration in making awards, but not necessarily the only one, is excellence of scholarship.

THE PENOBSCOT VALLEY ALUMNI ASSOCIATION SCHOLARSHIPS. Two scholarships of fifty dollars each are awarded to two male students selected by the President of the University, the executive secretary of the General Alumni Association and the faculty Committee on Honors, who are found to be worthy students, in need of financial assistance, and have satisfactory scholarship and conduct. If possible, students whose homes are in the Penobscot Valley shall be selected for the award.

WILLIAM EMERY PARKER SCHOLARSHIP. In memory of William Emery Parker, class of 1912, the income of a fund of one thousand dollars donated by Hosea B. Buck, class of 1893, is awarded annually to that male student of the sophomore or junior class who, in addition to being above the average rank scholastically, shows most clearly those qualities of manliness, honesty, and constructive effort which characterized the college career of the alumnus in whose memory the scholarship is given. It is to be awarded by the Committee on Honors with the approval and agreement of the President.

THE PHI MU SCHOLARSHIP, thirty dollars, will be awarded each year to a woman student whose scholarship and conduct are deserving and who is in need of financial assistance. The selection will be made by the President of the University, the president of the sorority, and the faculty Committee on Honors.

THE KIDDER SCHOLARSHIP, thirty dollars, was endowed by Frank E. Kidder, Ph.D., Denver, Colorado, a graduate of the University in the class of 1879. This scholarship is awarded to a student whose rank excels in his junior year. The selection is made by the President and the faculty.

NEW YORK ALUMNI ASSOCIATION SCHOLARSHIPS.—SCHOLARSHIP No. 1, fifty dollars, is offered for excellence in debating. In case the effort in debating does not justify this award in any year or years the amount shall be accumulative.

SCHOLARSHIP No. 2, fifty dollars, is offered annually to encourage advancement and proficiency in English, particularly along the lines which will assist toward facility in correct, clear, direct, and efficient written and oral expression in later professional, commercial, and civil life. The candidates for this scholarship shall be juniors in the College of Technology. They shall assemble on an announced date and each one shall be required to compose an essay on a subject selected from a list of ten, of which five are chosen by the Department of English and five by the College of Technology. The award will be based upon the quality of the essay and the advancement which is indicated by the student's grade in courses in English. There shall be three judges, one of whom shall represent the College of Technology and the other two shall be selected by the Department of English.

PITTSBURGH ALUMNI ASSOCIATION SCHOLARSHIP, thirty dollars, awarded to a member of the junior class in the College of Technology. The ability of the student and his needs are considered in making this award. The selection is made by the President and the professors of the College of Technology.

SIGMA THETA RHO PRIZE. An award of ten dollars is made by Sigma Theta Rho Sorority to the woman student of the junior class who, on the

basis of her habits and everyday practices, gives greatest promise of fulfilling her obligations to any group of society in which she may find herself. The selection is made by the sorority and the Committee on Honors.

WALTER BALENTINE PRIZE, fifteen dollars, the gift of Whitman H. Jordan, Sc.D., LL.D., Orono, Maine, a graduate of the University of the class of 1875, is awarded to that student who excels in biological chemistry.

THE JOSEPH RIDER FARRINGTON SCHOLARSHIP. The income of \$1000, a gift of Arthur M., Edward H., Oliver C., Horace P., and Wallace R. Farrington, all graduates of the University of Maine and sons of Mr. and Mrs. Joseph Rider Farrington. The following order of preference is considered in awarding this scholarship: (a) To any direct descendant of Joseph Rider and Ellen Holyoke Farrington, or any one whom three of such descendants may select; (b) To any student bearing the surname Farrington or Holyoke; (c) To the student in the junior class of the College of Agriculture who attains the highest rank in studies and deportment during that year and who shall make application for the scholarship.

STANLEY PLUMMER SCHOLARSHIP. The income of \$1000, the bequest of Colonel Stanley Plummer of Dexter, Maine. Awarded to needy and deserving students selected by the Trustees. Students born in Dexter, Maine, shall have the preference; but if there are none such, any needy and deserving students may be selected.

THE CHI OMEGA SOCIOLOGY PRIZE. In accordance with the national policy of the sorority, Chi Omega offers a twenty-five dollar prize to the woman student who secures the highest grade in the beginners' course in sociology. Her general deportment and interest in the study of sociology may also be considered in determining the award. This prize is intended for sophomore or junior students.

PRIZE OF THE CLASS OF 1873. The income of \$1000, the gift of Russell W. Eaton, of Brunswick, a member of the class of 1873. Awarded annually to that member of the sophomore class who is able to show the greatest improvement in mechanical drawing during the first two years of his college course. It is expected that candidates for this prize shall have had no training in mechanical drawing previous to entering the University.

THE ELIZABETH ABBOTT BALENTINE SCHOLARSHIP was endowed by the Gamma chapter of Alpha Omicron Pi for a woman member of the current freshman class to be determined by the President and the faculty. This scholarship is the equivalent of one semester's tuition. Both scholarship and individual need are to be considered in the award.

CENTRAL DISTRICT ALUMNI ASSOCIATION SCHOLARSHIP, thirty dollars, is awarded to a sophomore pursuing a regular curriculm whose deportment is satisfactory and who attains the highest rank of his class during the freshman year.

SCHOLARSHIPS AND PRIZES

THE ALPHA OMICRON PI ALUMNAE PRIZE, ten dollars, given by the Bangor Alumnae Chapter of Alpha Omicron Pi. The award is made to a woman student showing the greatest improvement in her work during her freshman year. The record at the Registrar's office showing the comparison of grades of the fall semester with those of the spring semester will furnish the basis of award.

THE CLASS OF 1905 SCHOLARSHIP. The income of a one thousand dollar donation by members of that class shall be awarded to a man of the freshman class pursuing a regular curriculum, whose deportment is satisfactory, and who attains the highest rank in the mid-year examinations.

THE TRACK CLUB AWARD, fifty dollars, is given each year by the Track Club to some member of the freshman class who needs help. He must show promise in track athletics his freshman year and have maintained a satisfactory scholarship. The awarding will be in the hands of a committee composed of the president of the Track Club, the coach of track athletics, and a member of the faculty to be chosen by the club, subject to the approval of the President. The winner will be given the award upon his return to college his sophomore year. Applications must be in writing and sent to either the coach of track athletics or the president of the Track Club before May 1 of each year.

THE HENRY L. GRIFFIN PRIZE IN ENGLISH COMPOSITION, of ten dollars, in honor of the late Rev. Henry L. Griffin, of Bangor, is awarded by the Department of English for excellence in the freshman course in composition and literature.

FRANKLIN DANFORTH PRIZE, ten dollars, the gift of the Hon. Edward F. Danforth, of Skowhegan, a graduate of the University of the class of 1877, in memory of his father, Franklin Danforth, is awarded to that member of the senior class in an agricultural curriculum who attains the highest standing.

GREEK CULTURE PRIZE, ten dollars, the gift of the Hon. Edward F. Danforth of Skowhegan. Awarded annually to that member of the senior class who shall have given evidence of the best appreciation of the spirit of Greek culture.

THE WASHINGTON ALUMNI ASSOCIATION WATCH is presented to the member of the graduating class who, in the opinion of the faculty and students, has done the most for the University during his course. This award is made as the result of a secret ballot by the students and passed upon by the President and the faculty.

THE VICTORIA WEEKS HACKER WATCH, the gift of the Portland Club of University of Maine Women, is presented to the woman member of the

graduating class who, in the opinion of the faculty and students, has done the most for the University during her course.

CLASS OF 1908 COMMENCEMENT CUP is awarded to the class, the largest percentage of whose members register during Commencement week.

FRATERNITY SCHOLARSHIP CUP, presented to the University by the 1910 Senior Skull Society in 1910, and renewed in 1921 by the 1921 Skulls, is awarded at Commencement to that fraternity having the highest standing in scholarship for the preceding calendar year. The cup is to be awarded for eleven years, 1921 to 1931 inclusive, and the fraternity to which it is awarded the greatest number of times is to be its permanent owner.

THE PAN HELLENIC SORORITY CUP is given to the sorority having the highest scholastic standing.

AGRICULTURAL CLUB MEMBERSHIP CUP is furnished by the Agricultural Club to be engraved each year with the numerals of that class which can show the best record of membership in the club.

THE CHARLES RICE CUP, presented by the Kappa Sigma Fraternity in honor of the late Charles Anthony Rice, who was killed in service, is held for one year by the team winning the intra-mural track championship.

THE MAINE CAMPUS CUP, the gift of the Campus Board of 1923-24, is awarded at Commencement to the fraternity whose freshman delegation has the highest standing in scholarship for the first semester.

GRADUATE SCHOLARSHIPS. The Board of Trustees has established three graduate scholarships yielding one year's tuition each, to be awarded to one member of the senior class from each of the colleges of the University. In addition, a graduate scholarship of the value of a year's tuition, in each of the three colleges of the University, is offered annually, on a competitive basis, to graduates of the colleges and universities of the maritime provinces of Canada. PHI BETA KAPPA SCHOLARSHIP. The local chapter of Phi Beta Kappa awards each year a sum of money, which is supplemented by the Board of Trustees so that the total is sufficient for the payment of a year's tuition of a graduate student. Graduates of any approved college or university are eligible for this scholarship. It is awarded by members of the faculty of the College of Arts and Sciences who also belong to the graduate faculty.

STUDENT REGULATIONS

It is assumed that all students entering the University are willing to subscribe to the following: A student is expected to show, both within and

THESES

without the University, respect for order, morality, and the rights of others, and such sense of personal honor as is demanded of good citizens.

The quota of regular studies for each student varies from a minimum of fourteen hours to a maximum of eighteen hours in the College of Arts and Sciences, and from a minimum of seventeen hours to a maximum of twenty-two hours in the College of Technology and the College of Agriculture except that in the Department of Home Economics the limits are sixteen hours and twenty hours. In the application of this rule, two or three hours of laboratory work count as one hour.

Each student is expected to be present at every college exercise for which he is registered.

Detailed information about the regulations affecting students is contained in a pamphlet which may be obtained at the office of the Registrar.

DEGREES

The degree of Bachelor of Arts (B. A.), with specification of the major subject, is conferred upon all students who complete a curriculum in the College of Arts and Sciences.

The degree of Bachelor of Science (B.S.) in the curriculum pursued is conferred upon students who complete the prescribed work of four years in the Colleges of Agriculture or Technology.

A minimum residence of one year is required for the attainment of any bachelor's degree. Except in the preparatory medical and legal curricula this pertains to the senior year.

The degrees of Master of Arts (M. A.) and Master of Science (M. S.) are granted for one year's graduate work completed with distinction.

SCHOLARSHIP HONORS

Scholarship honors are awarded to seniors whose scholarship places them in the first fifteen per cent of their class. The names of students winning these honors are printed in the catalog.

THESES

Theses shall be printed, or typewritten in black record, unless the subject matter prevents, and the paper used shall be a standard thesis paper, $8 \times 10 1$ -2 inches, which may be procured at the University Store. Care should be

taken to have a margin of one inch on the inner edge, at least one-half inch on the outer edge, one and one-half inches at the top, and one inch at the bottom of the page.

If drawings accompany the thesis, they may be bound in with the rest of the pages or placed in a pocket on the inside of the book cover; or if too many for this, they may be bound separately according to personal instructions of the head of the department.

A draft of all undergraduate theses must be passed to the major instructor before May 1.

Complete instructions may be found in a pamphlet entitled "Degrees and Theses."

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Organization of the University

The University is divided for purposes of administration by the Trustees into two divisions, the academic and the financial. The former is divided into the Colleges of Agriculture, Arts and Sciences, and Technology, and the Maine Agricultural Experiment Station. The policies of the University as a unit are determined by the Board of Trustees, the administrative officers, and the general faculty, but each division regulates those affairs which concern itself alone. In addition to the faculties of the colleges there are the Faculty of Graduate Study, the University Extension Division, and the Faculty of the Summer Session.

College of Agriculture

Curricula in Agronomy, Agricultural Education, Animal Husbandry, Biology, Dairy Husbandry, Forestry, Home Economics, Home Economics Education, Horticulture, and Poultry Husbandry.

Two-Year Course in Agriculture.

Short courses; Farmers' Week; Lecture Courses; Extension Schools.

Major subjects may be selected in Biology, Chemistry, Economics and Sociology, Education, English, French, German, History and Government, Latin, Mathematics and Astronomy, Philosophy, Physics, Psychology, Public Speaking, and Spanish and Italian.

College of Technology

Curricula in Chemical Engineering, Chemistry, Civil Engineering, Electrical Engineering, and Mechanical Engineering.

MAINE AGRICULTURAL EXPERIMENT STATION

Offices and principal laboratories at Orono; Highmoor Farm at Monmouth; Aroostook Farm at Presque Isle.

FACULTY OF GRADUATE STUDY

Courses leading to the degrees of Master of Arts and Master of Science have been organized in a considerable number of departments.

UNIVERSITY EXTENSION DIVISION

Courses of study and lectures to be given away from Orono. Correspondence-study.

SUMMER SESSION

A summer session of six weeks is maintained by the University. Work is offered at present in about fifteen departments.

College of Agriculture

FACULTY OF INSTRUCTION

- LEON STEPHEN MERRILL, M.D., Sc.D., Dean and Director of Agricultural Extension Service
- LUCIUS HERBERT MERRILL, Sc.D., Professor of Biological and Agricultural Chemistry
- FREMONT LINCOLN RUSSELL, B.S., V.S., Professor of Bacteriology and Veterinary Science
- JOHN MANVERS BRISCOE, M.F., Professor of Forestry
- George Edward Simmons, M.S., D.Sc., Professor of Agronomy
- LAMERT SEYMOUR CORBETT, M.S., Professor of Animal Industry
- HERBERT STAPLES HILL, B.A., Professor of Agricultural Education
- CHARLES HENRY MERCHANT, Ph.D., Professor of Agricultural Economics and Farm Management
- JAMES HOWARD WARING, M.S., Professor of Horticulture
- PEARL STUART GREENE, M.A., Professor of Home Economics
- FERDINAND HENRY STEINMETZ, Ph.D., Professor of Botany
- DONNELL BROOKS YOUNG, Ph.D., Professor of Zoology
- MAURICE DANIEL JONES, M.S., Professor of Agricultural Economics and Farm Management

LLEWELLYN MORSE DORSEY, M.S., Associate Professor of Animal Industry

ELEWELLIN MORSE DORSEI, M.S., Associate Professor of Bacteriology ELMER REEVE HITCHNER, M.S., Associate Professor of Bacteriology HARRY WOODBURY SMITH, M.S., Assistant Professor of Biological and

Agricultural Chemistry

*BENJAMIN COE HELMICK, M.S., Assistant Professor of Agronomy CHAUNCEY WALLACE LORD CHAPMAN, M.S., Assistant Professor of Forestry

LOUISE BANCROFT, M.A., Assistant Professor of Home Economics LEIGH PHILBROOK GARDNER, M.S., Assistant Professor of Animal Industry HAROLD CLAYTON SWIFT, M.S., Assistant Professor of Agronomy GILBERT IRELAND STEWART, M.F., Assistant Professor of Forestry CHARLES ORVILLE DIRKS, M.S., Assistant Professor of Entomology MARION DEYOE SWEETMAN, Ph.D., Assistant Professor of Home Economics WERNER THADEUS SNYDER, M.S., Assistant Professor of Agronomy

*On leave of absence, 1928-1929.

Howe Wiggin Hall, M.S., Instructor in Animal Industry
Rena Campbell, B.S., Instructor in Home Economics
MYRON FRANCIS BABB, B.S., Instructor in Horticulture
Fay Hyland, B.S., Instructor in Botany
Beulah Elizabeth Osgood, B.S., Instructor in Home Economics
HAIG DEYIRMENJIAN (DERMEN), M.S., Instructor in Botany
George Wallis Woodbury, B.S., Instructor in Horticulture
GLADYS M. Gould, B.S., Part Time Instructor in Home Economics in Charge of Student Teaching

GENERAL INFORMATION

The College of Agriculture comprises the departments of Agricultural Economics and Farm Management, Agricultural Education, Agronomy, Animal Industry, Biological and Agricultural Chemistry, Biology, Forestry, Home Economics, Horticulture, Veterinary Science and Bacteriology, and Extension Service. This college offers to young men and women an opportunity to secure a broad education and thoro training in the sciences and technics relating to the major course of study they may elect to pursue. It aims to prepare them for a life of usefulness as citizens of the State and for effective service in their chosen vocations or professions.

More specific and detailed information concerning the purposes of each major course of study offered by the college will be found in the description of the various curricula.

Each four-year curriculum in the College of Agriculture embraces 147 credit hours with the exception of the Home Economics curricula, for each of which 140 credit hours are required. When one of these curricula is satisfactorily completed the student will receive the degree of Bachelor of Science (B.S.).

On entering either a four-year curriculum in agriculture or the twoyears' agricultural course a student is required to fill out a practical experience blank. Those who have not had experience in general farming are required to work during at least one summer vacation on some farm approved by the faculty of the college. Before receiving their degrees or certificates candidates must satisfy the faculty that they are familiar with the methods of conducting operations incident to general farming. This does not apply to students who major in Biology, Forestry, or Home Economics.

Physical training is required in each semester of the first two years. No credit toward a degree is allowed for this work. Physical training is not required in the two-year agricultural curriculum.

Students in agriculture who contemplate entering experiment station chemical work should elect the courses offered by the Department of Biological and Agricultural Chemistry covering the qualitative and quantitative chemical analysis of feeds, fertilizers, and dairy products. They should also elect a preparatory course in quantitative chemical analysis.

Students desiring to specialize in the biological aspects of Forestry may offer freshman and sophomore courses in Forestry as equivalent to the first two years' work in Agriculture and register in the curriculum in Biology during the junior and senior years.

A star (*) before the time designated for a course indicates that three or sometimes more hours of actual work are required to obtain credit for one hour; a dagger (†) indicates that two hours of actual work are required to obtain one credit hour.

REGULAR CURRICULA AND COURSES OF INSTRUCTION

The courses of instruction are organized as follows:

1. Four-year agricultural curricula:

Agricultural Education, Agronomy, Animal Husbandry, Biology. Dairy Husbandry, Horticulture, and Poultry Husbandry.

- 2. Four-Year Forestry curriculum.
- 3. Four-Year Home Economics curricula: Home Economics Home Economics Education

- The Two-Year Course in Agriculture. 4.
- Short Courses: 5.

The short winter courses in General Agriculture, Dairying, Horticulture, and Poultry Management.

- Farm and Home Week. 6.
- 7. Agricultural Extension Courses:

Lecture Courses. Extension Schools.

The Four-Year Agricultural Curricula

The four-year agricultural curricula are designed for those who wish to engage in the business of farming; for those contemplating the special fields of animal husbandry, dairy husbandry, poultry husbandry, horticulture, and biology; for those desiring to enter federal or state agricultural research work; for those planning to prepare themselves for the teaching

of agriculture and the allied sciences in secondary schools and colleges; and for those seeking to fit themselves to become agricultural extension agents or specialists in any of the various phases of agriculture. In addition to the specific fields mentioned above there are many other opportunities open to the college trained man in the agricultural and associated industries.

Certain studies are fundamental to all work in agricultural lines, and for this reason as many of these subjects as possible are offered in the first two years, during which the student is necessarily given no choice of subjects. At the beginning of the junior year each student must decide whether he is to specialize in Agricultural Education, Agronomy, Animal Husbandry, Dairy Husbandry, Poultry Husbandry, Horticulture, or Biology. In order to specialize in any one of these lines the student must take during his junior and senior years subjects listed in the curriculum chosen.

It will be noted that each major curriculum allows a student a number of elective hours. These elective subjects are selected with the advice of the major instructor. In view of the fact that the economic aspects of the agricultural industry are becoming more important each year, it is suggested that the student elect subjects in the field of agricultural economics in addition to those which may be required in his major curriculum; particularly is it suggested that he obtain as much information as he possibly can on the marketing of agricultural products.

Honor Course in Agriculture

Any student who has obtained an average grade of at least 3.25 in the courses offered by his major department during the first three years of his college course may register for honor courses in his major department or in an allied department during his senior year providing his average grade in such allied department is at least 3.25 in all subjects taken in that department. Such courses may be substituted for any elective course, the total number of credit hours not to exceed four. Such honor courses shall be designed especially to promote initiative and organizing ability in the student. The scope of such courses shall constitute a broad survey in the field selected for study and shall in no way be substituted for a thesis. The general plan shall be worked out by the head of the department in which the course is taken, and must be approved by the head of the student's major department.

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Curriculum for the First Two Years for All Students Taking Four-Year Curricula in Agriculture

FRESHMAN YEAR

Fall Semester

Subject	Hours
Agronomy 11, 2 †2	. 3
Chemistry 1 or 3, 2 †4	. 4
Drawing 9, *3	. 1
English 1	. 3
Military 1, †3	. 11/2
Poultry Husbandry 1, 2 †2	. 3
Zoology 1, 2 †4	. 4
Physical Training 1	•

Spring Semester	
Subject Hour	S
Animal Industry 2 2	
Animal Industry 4, †2 1	
Botany 2, 2 †4 4	
Chemistry 2 or 4, 2 †4 4	
Drawing 10, *3 1	
English 2 3	
Military 2, $\ddagger 3$ $1\frac{1}{2}$	
Poultry Husbandry 2, 1 †2 2	
Physical Training 2	

Chuing Compositor

19¹/₂

18¹/₂

SOPHOMORE YEAR

Agronomy 1, 2 *3	3	Agronomy 12, †4	2
Animal Industry 3	2	Biochemistry 2	3
Animal Industry 5, †2	1	Biochemistry 4, †4	2
Biochemistry 1	2	Biology 20, 2 †4	4
Biochemistry 9, 2 †2	3	Horticulture 2, 2 *3	
Intro. Agr. Economics 49	2	Mathematics 12	2
Mathematics 11	3	Military 4, *3	2
Military 3, *3	2	Options:	
Options :		Agricultural Chemistry 6	2
Animal Industry 7, 2 †4	4	or	
or		Horticulture 20, 2 †2	3
Horticulture 1, 2 †2	3	Physical Training 4	
Physical Training 3			

21 or 22

20 or 21

Curriculum for Students Specializing in Agricultural Education

In recent years there has grown a need in this State and a majority of the other States for young men especially trained to conduct agricultural courses in secondary schools. The federal government, recognizing the im-

portance of teaching agriculture in secondary schools, has thru the Smith-Hughes Act made it possible for school boards to obtain federal aid in this work. In order to receive this aid the teacher employed must be trained at an agricultural college following a specific agricultural education curriculum or teacher-training course, as it is called. There are two such teacher-training courses in the College of Agriculture. When these requirements have been met the graduate may become a candidate for appointment under the Smith-Hughes provisions as a teacher of agricultural subjects. It is a wise policy in any event for a student contemplating a career of teaching to follow the major agricultural teacher-training curriculum given below. For those students wishing to specialize in some other major curriculum but at the same time elect enough of the teacher-training curriculum to render themselves eligible to Smith-Hughes teaching positions, the following electives must be taken provided they are not required in their major curricula. Education 59, Education 48, Agricultural Education 3, Agricultural Education 6, Horticulture 1. Farm Management 74, Animal Industry 7, and Agronomy 34.

Students who elect either of the teacher-training courses must have had at least two years of practical farm work since their fourteenth birthday. One of these years must include all the year round experience. Experience on the home farm while attending school satisfies the requirement. Those who do not meet this requirement of practical experience will be allowed to take the course only with the understanding that they will be expected to get this experience before they will be allowed to teach.

Fall Semester		Spring Semester	
Subject	Hours	Subject	Hours
Agronomy 33, 2 *3	. 3	Agricultural Chemistry 6	. 2
*Animal Industry 7, 2 †4	. 4	or	
Bacteriology 1, †6	. 3	Horticulture 20, 2 †2	. 3
Bacteriology 3	. 2	Agronomy 72, 2 *3 (Farm	
Education 59	. 3	Machinery)	. 3
English 5	. 2	Animal Industry 6	. 2
Elective	. 2	Education 48	. 3
		Veterinary Science 14	. 3
		Veterinary Science 16	. 1
		Elective	or 3
	19	16	or 17

*If not already taken in the sophomore year. If taken in the sophomore year, the elective hours will be correspondingly increased for this semester.

SENIOR YEAR

Fall Semester Subject Hours 3 Agricultural Education 3, 2 †2 Agricultural Economics 73..... 3 Agronomy 3..... 2 Agronomy 71, 2 *3 (Farm Engineering) 3 Elective 5

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Spring Semester Subject Hours Agricultural Education 4.... 4 Agricultural Education 6.... 2 Farm Management 74, 3 *3... 4 2 Agronomy 34, †4..... Farm Management 52, 1 *6... 3

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Curriculum for Students Specializing in Agronomy

Agronomy in a large sense is a study of the principles underlying modern methods of crop production, plant breeding, adaptation and care of the soil, the source and use of fertilizer materials, the management of the farm, and various phases of agricultural engineering. This curriculum provides a well rounded training in these subjects, but does not neglect the other phases of agriculture such as stock raising, fruit and vegetable growing, biology, etc.

The graduate having followed this curriculum will find numerous fields of activity open to him; the more common of which are farming for himself, farm management positions, agricultural extension work, experiment station investigational work, agricultural teaching and opportunities in the various fertilizer and agricultural machinery industries.

JUNIOR YEAR

Agronomy 15, 1 †2	2
*Animal Industry 7, 2 †4	4
Bacteriology 1, †6	3
Bacteriology 3	2
Biology 31, 2 †4	4
English 5	2
Elective	1

*Agricultural Chemistry 6	2
Agronomy 14, 1 †2	2
Agronomy 16, 1 †2	2
Agronomy 18	2
Animal Industry 6	2
Biology 32, 2 †4	4
Elective	3
	17

*If not already taken in the sophomore year. If taken in the sophomore year, the elective hours will be correspondingly increased for this semester.

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SENIOR YEAR

Fall Semester		Spring Semester	r
Subject	Hours	Subject	Hours
Agronomy 3	2	Agronomy 20, 1 †2	2
Agronomy 71, 2 *3 (Farm	1	Farm Management 52, 1 *	*6 3
Engineering)	3	Agronomy 72, 2 *3 (Farm	1
Elective	12	Machinery)	3
•		Farm Management 74, 3 '	*3 4
		Elective	3

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Curricula for Students Specializing in Animal Industry

ANIMAL HUSBANDRY

The curriculum in Animal Husbandry is so arranged that the student receives a comprehensive training in animal breeding, feeding, and management, consideration being given to the four chief groups of farm animals, cattle, horses, swine, and sheep. Because of the importance of crops to the maintenance of farm animals this curriculum embraces subjects relating to crop production and farm management. The student on completion of this curriculum may engage in the business of animal breeding, furthering the promotion of pure bred livestock utilization; he may enter special phases of animal industry, such as federal extension, control and investigational lines; he may become the superintendent of an animal breeding establishment; he may engage in college or university teaching of animal husbandry; or he may enter into any one of the great allied industries of animal industry, The such as the meat packing business or the commercial feed business. training he has received has furnished him with the necessary fundamental equipment to enable him to succeed.

JUNIOR YEAR

Spring Semester	
Subject H	ours
*Agricultural Chemistry 6	2
Animal Industry 6	2
Animal Industry 52, †2	1
Bacteriology 52, 1 †4	3
Biology 18, 2 †4	4
Veterinary Science 14	3
Veterinary Science 16	1
Elective	2

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*See note on following page.

SENIOR YEAR

Agronomy 3	2
Animal Industry 53	2
Agronomy 71, 2 *3 (Farm	
Engineering)	3
Veterinary Science 15	2
Veterinary Science 17	1
Veterinary Science 19	2

Animal Industry 60	2
Farm Management 52, 1 *6	3
Agronomy 72, 2 *3 (Farm	
Machinery)	3
Elective	7

	-		-			_	_	-	-	-	-	-	-	*	~	-	-	_
Elective				•		•	•	•			•			•			•	5

17

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DAIRY HUSBANDRY

This curriculum is more specialized than that for Animal Husbandry in that it deals more specifically with dairy production and dairy manufactures. The student pursuing this curriculum prepares himself to follow the business of dairy farming from the standpoint of efficient dairy cattle breeding and efficient milk production. The other major phases of the dairy industry are the market milk business, butter manufacturing, cheese manufacturing, condensed and powdered milk industry, and ice cream manufacturing, each of which is constantly adding to its personnel young men who have received training similar to that offered in the Dairy Husbandry curriculum. In addition to the foregoing there are many opportunities to follow special lines of endeavor, federal, state, and commercial, all of which require specialized training in dairy production and dairy manufactures.

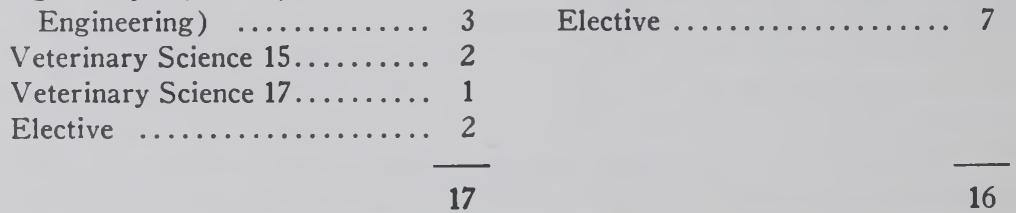
JUNIOR YEAR

Fall Semester		Spring Semester							
Subject	Hours	Subject	Hours						
*Animal Industry 7, 2 †4	4	*Agricultural Chemistry 6	. 2						
Bacteriology 1, †6	3	Animal Industry 6	. 2						
Bacteriology 3	2	Animal Industry 8, 1 *6	. 3						
English 5	2	Bacteriology 52, 1 †4	. 3						
Elective	6	Veterinary Science 14	. 3						
		Veterinary Science 16	. 1						
		Elective	. 3						
	17		17						

*If not already taken in the sophomore year. If taken in the sophomore year, the elective hours will be correspondingly increased for this semester.

SENIOR YEAR

Agronomy 3	2	Bacteriology 54, 1 †4	3
Animal Industry 9, 2 *6	4	Farm Management 52, 1 *6	3
Animal Industry 51	3	Agronomy 72, 2 *3 (Farm	
Agronomy 71, 2 *3 (Farm		Machinery)	3



POULTRY HUSBANDRY

The poultry industry of the United States has come to be recognized as one of the highest ranking agricultural industries and while it relies for its vastness on the widespread farm flock, nevertheless it offers abundant opportunities to men possessing special training in poultry breeding, feeding, and management. Commercial poultry raising calls for a specialized training in poultry husbandry and is becoming a business of large proportions. Many openings also occur in poultry extension work, either federal or state,

and also in the poultry supplies business. The curriculum in Poultry Husbandry furnishes the necessary training for the student contemplating entrance into the fast growing poultry industry.

JUNIOR YEAR

Fall Semester		Spring Semester	
Subject	Hours	Subject	Hours
*Animal Industry 7, 2 †4	4	*Agricultural Chemistry 6	. 2
Bacteriology 1, †6	3	Animal Industry 6	. 2
Bacteriology 3	2	Biology 18, 2 †4	. 4
Biology 15, 2 †4	4	Poultry Husbandry 4	. 2
English 5	2	Elective	. 7
Poultry Husbandry 3, 1 †2	2		
	17		17

*If not already taken in the sophomore year. If taken in the sophomore year, the elective hours will be correspondingly increased for this semester.

SENIOR YEAR

Agronomy 3	2	Farm Management 52, 1 *6	3
Agronomy 71, 2 *3 (Farm		Agronomy 72, 2 *3 (Farm	
Engineering)	3	Machinery)	3
Poultry Husbandry 5	2	Poultry Husbandry 6, 3 †2	4
Poultry Husbandry 7, 2 †3	3	Veterinary Science 12	2
Elective	7	Elective	4
-		-	
	17		16

Curriculum for Students Specializing in Horticulture

The commercial production of fruits, vegetables, and flowers is well established in Maine, each being rather highly specialized in districts where climate, soil, or the convenience of a good market is particularly favorable. The beautification of the home grounds, and the designing, planting, and care of estate grounds, cemeteries, parks, and golf courses are likewise important practical ends toward which college training in horticulture is found to be helpful.

The courses offered are designed to prepare those who pursue them either to engage independently in such occupations as have just been men-

tioned or to fill positions with others who are so engaged. The objectives include handling horticultural products and equipment, market inspection, nursery inspection, teaching agriculture in secondary schools, and agricultural extension work. Those who demonstrate superior capabilities will be encouraged to fit themselves thru graduate study to be college teachers and research workers in horticulture.

For graduation a minimum of twenty-one credit hours must be secured in the field of horticulture, and each student must complete at least one of the following groups as a minimum degree of specialization in pomology, ornamental horticulture, or olericulture: (1) Ht. 1, 2, 3, and 10, and Fm. 74; (2) Ht. 5, 7, 8, and 54; (3) Ht. 20, 21, and 55, and Fm. 74. The department will attempt so to advise the student in the selection of elective courses that such special abilities as are early shown may be developed to the greatest possible extent, but not at the sacrifice of well-rounded development.

JUNIOR YEAR

Fall Semester		Spring Semester	
Subject	Hours	Subject	Hours
Bacteriology 3	2	*Agricultural Chemistry 6.	2
Biology 31, 2 †4	4	Bacteriology 2, †6	3
English 5	2	Biology 36, 2 †4	4
Horticulture 5, 2 †2		*Horticulture 20, 2 †2	3
Elective	7	Elective4	or 6

80

18

17

*If not already taken in the sophomore year. If taken in the sophomore year the elective hours will be correspondingly increased for this semester.

SENIOR YEAR

Agronomy 3	2
Agronomy 71, 2 *3	3
Horticulture 3, 2 †2	3
Horticulture 51	1
Elective	8

Horticulture	50	2
Horticulture	52	1
Elective		12

15

Curriculum in Biology

This curriculum fills the need of those desiring training to fit themselves either to engage in teaching the science of biology or to enter the field of biological research. Biology has rapidly come to the fore as an important science and its many branches, such as botany, zoology, entomology, and genetics, require numbers of trained men and women to carry on the vast amount of experimental work of research character which is in progress. By so shaping his major work in biology the student may prepare himself to be a specialist in some one of the phases of biology mentioned, or he may make his course more general in nature in the event that he should enter the educational field of biology. Trained biologists are in constant demand for public service, particularly in experiment station work all over the United States.

JUNIOR YEAR

Spring Semester

Subject	Hours
Bacteriology 2, †6	. 3
English 10	. 2
Modern Language	. 2
Biology	. 4
Plant Pathology 36, 2 [†] 4)	
or }	4
Elective	
Flective	3

81

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18

8

3 5

16

	17	
:	SENIOR Y	EAR
Biology Thesis or Elective Elective	3	
-	16	

Curriculum in Forestry

Only the four-year undergraduate course is offered in Forestry. The curriculum for this course follows. It is arranged to meet the require-

ments of the National Committee of the Conference of Forest Schools, on standardization of instruction in forestry. Completion of the curriculum leads to the degree of Bachelor of Science in Forestry. It will enable the graduate to qualify for technical and administrative positions in professional forestry work, and will admit to advanced standing in post-graduate schools of forestry of high standing, if further and more advanced work is desired. It will also render a student eligible for the Civil Service examinations for the position of forest assistant in the United States Forest Service. Owing to the wide field covered by the curriculum, it offers an excellent basis for a broad and liberal education.

The first two years are given very largely to fundamental and auxiliary subjects, which are basic for a proper understanding of the more highly specialized work in technical forestry in the last two years.

Instruction in the department consists of lectures, recitations, laboratory and field work, the latter consuming a considerable portion of the scheduled time during the junior and senior years.

A camp course of eight weeks' practical experience is required of all seniors in the second half of the fall semester. This is given in the woods in cooperation with woods operations of the Great Northern Paper Company.

FRESHMAN YEAR

Fall Semester		Spring Semester	
Subject	Hours	Subject	Hours
Chemistry 1 or 3, 2 †4	. 4	Botany 2, 2 †4	. 4
Drawing 1, †4	. 2	Chemistry 2 or 4, 2 †4	4
English 1	. 3	Drawing 2, †4	2
Forestry 1	. 2	English 2	
Mathematics 9	. 2	Mathematics 2	2
Military 1, *3	$. 1\frac{1}{2}$	Mathematics 10	
Zoology 1, 2 †4	. 4	Military 2, *3	
Physical Training 1	•	Physical Training 2	• •

82

18½

181/2

SOPHOMORE YEAR

Fall Semester

Subject	Hours
Agronomy 1, 2 *3	. 3
Biology 33, 2 †4	. 4
Civil Engineering 1	. 2
Civil Engineering 3	. 11/2
Economics 1b	. 2
English 5	. 2
Military 3, *3	. 2
Elective	. 3
Physical Training 3	•

Spring Semester		
Subject	Hou	rs
Biology 22, 2 †4	. 4	
Biology 34, 2 †4		
Civil Engineering 2	. 11/2	2
Civil Engineering 4		
Economics 2b	. 2	
English 10	. 2	
Forestry 4	. 1	
Forestry 10	. 1	
Military 4, *3	. 2	
Physical Training 4	•	

191⁄2

181/2

JUNIOR YEAR

Biology 35, 2 †4	4
Civil Engineering 21, *3	1
Civil Engineering 23, *3	1
Civil Engineering 27	1
Forestry 11	2
Forestry 13, *6	2
Geology 5	3

Biology 32, 2 †4	4
Civil Engineering 22	1
Civil Engineering 24	1
Forestry 6	2
Forestry 8, *6	2
Physics 10	3
Flective	6

Horticulture 5, 2 †2	3	Elective	0
-	17		19

SENIOR YEAR

Fall Semester

Subject	Hours
First Half Semester :	
Forestry 3	2
Forestry 5	1
Forestry 9	1
Forestry 15	1
Forestry 17, *6	1
Forestry 19	1
Forestry 21, *6	1
Second Half Semester	
(In Camp)	
Forestry 31	3
Forestry 33	3
Forestry 35	

Spring Semester	
Subject	Hours
Biology 42, 2 †4	. 4
Forestry 12	. 2
*Forestry 14, †8	. 2
Forestry 16	. 2
Forestry 18, *6	. 2
Forestry 20	. 2
Forestry 22	. 2
Forestry 30	. 2
Elective	

19

17

*Last nine weeks.

CURRICULA IN HOME ECONOMICS

The Department of Home Economics offers two curricula leading to a Bachelor of Science degree. They are identical in their requirements in general subjects, such as English and psychology, in sciences, and in home economics courses. They differ in that the Home Economics Education curriculum adds to these requirements the twelve hours of education necessary for the Professional Secondary Certificate granted by the State Department of Education, and thus also fulfills the requirements for Smith-Hughes vocational Home Economics teaching. This course prepares for teaching home economics in junior and senior high school. The general curriculum is planned for the woman who desires a broad education, with especial training for home economics positions in extension service, research, dietetics, journalism and business or for homemaking. The larger number of elective hours provide the opportunity for more courses in other departments of the University than are possible in the Home Economics Education course.

In addition to its preparation of major students, the Department of Home Economics offers to students in other colleges elective courses empha-

sizing the functions of the home. Courses 25 and 26 comprise a unified year's work, considering the home in its various aspects. Other courses of a more technical nature are open to students who offer the proper prerequisites or, in special cases, on consultation with the head of the department.

Curriculum for the First Two Years for All Students Majoring in Home Economics

FRESHMAN YEAR

Fall Semester		Spring Semester	
Subject	Hours	Subject	Hour
Chemistry 1, 2 †4	4	Chemistry 2, 2 †4	. 4
English 1	3	English 2	. 3
Home Economics 1, 2 †4	4	Home Economics 2, 2 †4	. 4
Home Economics 3, 1 †2	2	Home Economics 4, †4	. 2
Elective	5	Elective	. 5
Physical Education 1	• •	Physical Education 2	•
	18		18
	SUPHUMURE	YEAK	
Biochemistry 9, 2 +2.	3	Biochemistry 8 3 +4	5
S Biochemistry 9, 2 † 2	SOPHOMORE	YEAR Biochemistry 8, 3 †4	. 5

'S

19

English 3	3
Home Economics 5, 2 †4	4
Psychology 1	3
Zoology 1, 2 †4	4
Elective	1
Physical Education 3	

English 4	3
Home Economics 6, 2 †4	4
Biology 12, 2 †4	4
Psychology 2	3
Physical Education 4	

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General Home Economics

SENIOR YEAR

Fall Semester

Spring Semester

JUNIOR YEAR

Subject	Hours	Subject	Hours
Bacteriology 1, †6. Bacteriology 3. Biochemistry 7, †6. or Biochemistry 13, †4. Elective, one hour Home Economics 51, 2 †4. Sociology 41.	··· 2 · 3 · 4 · 3	Home Economics 52, †6 Home Economics 54, 3 †4. Home Economics 14 Sociology 42 Elective	5 3 3
	18		17
Economics 1b Home Economics 17, 1 †4 *Home Economics 21, *9 Home Economics 9 Elective	3 3 3	Home Economics 12 Home Economics 18, 1 †4. Elective	3
	16		16

*Home Economics 22 may be taken instead of Home Economics 21.

Home Economics Education

JUNIOR YEAR

18

Home Economics 52, †6	3
Home Economics 54, 3 †4	5
Home Economics 14	3
Sociology 42	3
Elective or Education 48	3

SENIOR YEAR

Economics 1b	2
Education 71	3
Home Economics 17, 1 †4	3
Home Economics 21, *9)	
or	3
Home Economics 71	
Home Economics 9	3
Elective	2
-	
	16

Home Economics 72)	
or	3
Home Economics 22, *9	
Home Economics 12	4
Home Economics 56	3
Home Economics 18, 1 †4	3
Elective	3

16

*Either Education 47 or 48 to be taken.

Special Courses in Agriculture

The Special Courses in Agriculture are designed for young men who cannot well spend four years in preparation, but who desire to secure special training in one of these lines. No fixed schedule of studies is prescribed, but students may elect along the line of horticulture, dairying, poultry management, farm management, and general agriculture.

Persons not candidates for a degree who desire to take special studies may be permitted to do so, if, upon examination, they give satisfactory evidence that they are prepared to pursue them. This privilege is intended only for students of unusual maturity or previous advancement in particular subjects, and not for those who are incompetent to pursue a regular course. If they subsequently desire to become candidates for a degree, they will be required to meet all the entrance requirements.

The annual expenses for courses of one year or more are the same as those for students in the four-year curricula.

Two-Year Course in Agriculture

This is a course designed to train young men and women who wish to become practical farmers, farm superintendents, dairymen, poultrymen, fruit-growers, or gardeners, but who cannot devote time to high school or college training.

The same equipment is used as in the four-year curricula, but the work is more elementary in nature. Most of the classes are separate and distinct from the four-year classes.

There are no entrance examinations required of those who desire to enter the Two-Year Course. Students over fifteen years of age who are prepared for advanced grammar or high school work are eligible for registration.

The practical side of this work is strongly emphasized, and since students are expected to be able to do work and handle men, those taking this course are required to spend the summer vacation between the first and second years in work either at the college or on some farm approved by the faculty.

On completion of the course a certificate is awarded those who have satisfactorily done the work.

Curriculum for Two-Year Course in Agriculture

FIRST YEAR

Subject

Fall Semester

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Subject	-	Ho	ours
Animal Husbandry, 2 †2.		• •	3
Business Arithmetic		• •	2
English		• •	3
Farm Crops, 3 *3			4
Forge Work, *3		• •	1
Fruit Handling, 2 *3		• •	3
Poultry Husbandry, 2 †2			3

Spring Semester Hours

Carpentry, †4	2
Dairy Husbandry, 3 *3	4
English	3
Farm Botany, 1 †2	2
Fruit Growing, 2 *3	3
Poultry Husbandry, 2 †2	3
Soils and Fertilizers, 3 *3	4

SECOND YEAR

Animal Husbandry, 2 †2	3
English	2
Farm Chemistry	3
Farm Engineering and	
Mechanics, 2 *3	3
Farm Management, 2 *3	3
*Poultry Husbandry 2	
Vegetable Growing, 2 *3	3
Veterinary Science	3

Animal Husbandry, 3 †2	4
English	2
Farm Crops	2
Farm Machinery, 2 *3	3
Forestry	2
Farm Insects, 1 †2	2
*Poultry Husbandry 2	
Small Fruit Culture and	
Plant Propagation, 2 *3	3
Veterinary Science	3

20

21

*Poultry Husbandry elective in second year.

DESCRIPTION OF SUBJECTS

Two-Year Course in Agriculture

The significance of a star (*) or a dagger (†) in the description of a course is explained on page 71.

FIRST YEAR-FALL SEMESTER

ANIMAL HUSBANDRY—DAIRY PRODUCTION.—A general survey of the field of dairy production and the economic reasons for the growth of the dairy industry. Also a study of the breeds of dairy cattle. Lectures and recitations on the care, feed, and management of dairy cattle. Class room, two hours a week; laboratory, †two hours a week. MR. HALL

BUSINESS ARITHMETIC.—A course in arithmetic based on the problems confronting the farmer in his business. Two hours a week. MR. SWIFT

ENGLISH.—Part of the time is devoted to a review of grammar and to the principles of effective writing, with attention also to spelling and punctuation. Weekly papers, chiefly expository, are required. During part of the year the third hour is devoted to the reading of two standard English novels. Three hours a week. ENGLISH DEPARTMENT

FARM CROPS.—A general course in the study of the practices in growing crops under field conditions. Class room, three hours a week; laboratory, *three hours a week. MR. SNYDER

FORGE WORK.—Forging; welding; tool steel work. *Three hours a week. MR. DAVEE

FRUIT HANDLING.—A study of the picking, packing, grading, storing, shipping, and marketing of fruits, particularly of the apple. A survey is made of the principal apple producing regions and of the general status of the industry. A small amount of systematic study of fruits and some fruit judging are included. Class room, two hours a week; laboratory, *three hours a week. MR. BABB

POULTRY HUSBANDRY.—Lecures and recitations on the origin and development of the types, breeds, and varieties of poultry; care, feed, and management; housing and house construction; breeding, incubation, and brooding; marketing poultry products. Laboratory practice in judging poultry for exhibition and egg production. Judging, candling, grading, and packing eggs. Killing, picking, and packing poultry. Class room, two hours a week; laboratory, †two hours a week. MR. GARDNER

FIRST YEAR-SPRING SEMESTER

CARPENTRY-Graded exercises in woodworking designed to familiarize

the student with tools used in modern woodworking practice and to give him experience in working from dimensioned drawings. *†Four hours a week*.

MR. SIMMONS, MR. SWIFT

DAIRY HUSBANDRY—GENERAL DAIRYING.—A course comprising the study of milk composition and secretion; the testing of milk and milk products; the sanitary production and handling of milk from farm to consumer; cream separation; and buttermaking. Class room, three hours a week; laboratory, *three hours a week. MR. DORSEY

ENGLISH.—A continuation of the work of the fall. Three hours a week. ENGLISH DEPARTMENT

FARM BOTANY.—Plant structure and tissues in their relation to plant growth and development and to agricultural practices. Class room, one hour a week; laboratory, †two hours a week. MR. STEINMETZ

FRUIT GROWING.—This course, emphasizing the apple, is designed to acquaint the student with the essential principles and practices which should be followed in the choosing of an orchard site, and in the subsequent planting, culture, pest control, and other care leading to the production of profitable crops. Class room, two hours a week; laboratory, *three hours a week.

Mr. Babb

POULTRY HUSBANDRY.—A continuation of the course offered in the fall semester. Class room, two hours a week; laboratory, †two hours a week. MR. GARDNER

SOILS AND FERTILIZERS.—A study of the properties, the management and fertilization of soils in relation to fitting them for the production of crops. Class room, three hours a week; laboratory, *three hours a week. MR. SwIFT

SECOND YEAR-FALL SEMESTER

ANIMAL HUSBANDRY—GENERAL ANIMAL HUSBANDRY.—Lectures and recitations on the breeds and care, feed, and management of horses, beef cattle, sheep, and swine. Laboratory work in judging horses, sheep, and swine. Class room, two hours a week; laboratory, †two hours a week.

MR. HALL

ENGLISH.—Instruction in practical uses of English, including business correspondence, with as much review of grammar as seems necessary. Two hours a week. ENGLISH DEPARTMENT

FARM CHEMISTRY.—A review of general chemistry; chemistry of plant and animal life as particularly related to agriculture; and a brief consideration of soil chemistry. *Three hours a week*. MR. SMITH FARM ENGINEERING AND MECHANICS.—A course designed to aid in running farm lines, laying out drainage systems, and planning farm buildings and conveniences. Class room, two hours a week; laboratory, *three hours o week. MR. SIMMONS, MR. SWIFT

FARM MANAGEMENT.—A study of those factors that affect the profitable operation of the farm as a business unit including size of business; labor efficiency; crop rotations; farm layout; production costs. Individual farming systems are studied. Class room, two hours a week; laboratory, *three hours a week. MR. JONES

*POULTRY HUSBANDRY—POULTRY MANAGEMENT.—A general consideration of poultry management with especial reference to sanitation and disease. Two hours a week. MR. HALL

VEGETABLE GROWING.—A course in vegetable production, emphasizing the production of vegetables for home use and the more important commercial vegetables of New England. The handling of forcers, the growing of seedlings, marketing, and other topics are included in as much detail as time will permit. Class room, two hours a week; laboratory, *three hours a week.

Mr. Babb

VETERINARY SCIENCE.—A lecture course illustrated by models, prepared specimens, and living animals. Designed to increase the student's knowledge of the anatomy and physiology of our domestic animals. Three hours a week. MR. RUSSELL

SECOND YEAR-SPRING SEMESTER

ANIMAL HUSBANDRY—FEEDING LIVESTOCK.—Lectures and recitations on the general principles underlying the feeding of livestock; the composition and characteristics of feed stuffs; calculating rations; and the best practices in feeding farm animals. Class room, three hours a week; laboratory, †two hours a week. MR. HALL

ENGLISH.—A continuation, including reports, abstracts, and oral composition based on agricultural material. Two hours a week.

ENGLISH DEPARTMENT

FARM CROPS.—Study of grass and forage plants with their culture and uses. Two hours a week. MR. SNYDER

FARM MACHINERY.—A course given to acquaint the student with the machinery adapted to farm use. Class room, two hours a week; laboratory, *three hours a week. MR. SIMMONS, MR. SWIFT

*Poultry Husbandry is elective in second year.

FORESTRY.—The general principles of forestry with special reference and application to the farm woodlands, particularly in this region. Lectures and textbook work in elementary systems of cutting, estimating, protection, and reforestation. Two hours a week. MR. CHAPMAN

FARM INSECTS.—A practical study of insects in their economic relationships to farm plants and farm animals. Class room, one hour a week; laboratory, †two hours a week. MR. DIRKS

*POULTRY ·HUSBANDRY—MARKETING POULTRY.—Common practices in the handling, shipping, and marketing of poultry and poultry products. Two hours a week. MR. HALL.

SMALL FRUIT CULTURE AND PLANT PROPAGATION.—A study of strawberries, raspberries, blackberries, blueberries, cranberries, grapes, and some other fruits of minor importance in the State. Production and disposal of the crops are considered. Instruction is given in the general propagation of plants. Class room, two hours a week; laboratory, *three hours a week. MR. WOODBURY

VETERINARY SCIENCE.—A study of the common diseases of farm animals supplemented by lectures and practical experience in caring for sick animals. The prevention and early recognition of disease and nursing of sick animals is given particular consideration. *Three hours a week*. MR. RUSSELL

Short Winter Courses in General Agriculture, Dairying, Horticulture, and Poultry Management

Owing to the lack of proper housing facilities, it has been found necessary to suspend these courses. It is hoped that conditions will soon permit a resumption of the work.

Farm and Home Week

There are a large number of people who cannot come to the college for a great length of time, but who desire a few days of practical instruction. To reach and accommodate these, "Farm and Home Week" is held. Lectures on practical agricultural subjects are given morning, afternoon, and evening. Practical demonstrations occupy a part of each afternoon. Besides the practical subjects discussed, one or more sessions are given up to problems of rural betterment. Considerable emphasis is placed on agricultural marketing problems peculiar to Maine. A section is arranged where home

^{*}Poultry Husbandry in second year is elective.

economics for farmers' wives is taught. Dates and programs may be secured each year by addressing the College of Agriculture.

Department of Agricultural Extension

This department offers lecture courses, practical demonstration work, cooperative tests, and extension schools in agriculture.

This work is intended to give direct help to those on the farm and in the home; to aid those who desire definite instructions in practical agriculture, animal and dairy husbandry, poultry husbandry, home economics, forestry, and horticulture. It supplements the teaching and experimenting of the College of Agriculture and the Agricultural Experiment Station. It is professedly a popular work because it endeavors to aid the farmer to solve the practical problems of the farm, to quicken agricultural work, and to inspire greater interest in country life.

Lecture Courses

Lectures in these courses are given under the auspices of granges, clubs, societies, and other gatherings by the members of the agricultural faculty.

A complete list of the lectures will be forwarded on request.

Extension Schools in Agriculture

To extend the advantages of agricultural instruction to persons ac-

tively engaged in agriculture, the Extension Department will conduct a limited number of three-day schools in various parts of the State.

CORRESPONDENCE SERVICE

It is recognized that a letter is a poor substitute for a personal conference in dealing with perplexing problems with which people are constantly confronted in the vocations of agriculture, forestry, and home economics, but the teachers in all departments of the college are always ready to furnish information dealing with these problems and thus render the greatest possible service to the people of the State. The College of Agriculture, therefore, welcomes inquiries on practical agricultural, forestry, and home economics topics. Extension bulletins dealing with different phases of these subjects are published at frequent intervals thruout the year and will be sent without cost to persons applying for them. A list of bulletins and circulars available for distribution will be forwarded on request.

Departments of Instruction

NOTE.—A star (*) before the time designated for a course indicates that three or sometimes more hours of actual work are required to obtain credit for one hour; a dagger (†) indicates that two hours are required to obtain this credit.

If the student so elects, he may prepare a thesis upon some subject related to his major work. The subject should be selected and approved by the head of the department before the close of the junior year.

Courses designated by an odd number are given in the fall semester; those designated by an even number, in the spring semester.

Courses numbered 1-50 are for undergraduates only; courses numbered 51-100 are for graduates and undergraduates; courses numbered above 100 are primarily for graduates.

AGRICULTURAL ECONOMICS AND FARM MANAGE-MENT

PROFESSOR MERCHANT; PROFESSOR JONES

49. INTRODUCTORY AGRICULTURAL ECONOMICS.—A general introductory course taking up the principles of economics as applied to agriculture. The

following topics will be considered: our land supply in relation to our population; centers of production of agricultural products, reasons for their present locations and the possible expansion or the probable contraction of these areas; origin and development of agricultural trade; domestic and foreign trade in agricultural commodities; structure of our present agriculture. Agricultural possibilities of the State. *Two hours a week*.

MR. JONES

52. FARM ACCOUNTING.—A study of all forms of farm records; farm inventories, cash accounts, single-enterprise cost accounts, complete farm cost accounting system, miscellaneous records. Special emphasis will be given to the interpretation of results and their practical application in the management of farms. Class room, one hour a week; laboratory, *six hours a week. MR. JONES

73. ADVANCED AGRICULTURAL ECONOMICS.—An advanced course taking up the more important economic problems in agriculture, such as farm

labor; farm equipment, and machinery; land ownership; land tenure; rent and systems of renting; taxation; risk; price fluctuations; speculation; insurance; transportation and distribution problems; general problems in agricultural credit; general problems in storage; protective tariff; foreign competition; county agent and farm bureau; state and federal aid. Prerequisite, Course 49. Three hours a week. MR. JONES

74. FARM MANAGEMENT.—Study of types of farming; farming as a business; size of business; balance; production rates; labor efficiency; crop rotations; machinery; farm layout; building arrangement; farm credit and its uses; choosing and buying a farm; ways of starting to farm; study of farm organization and management of specific farms in the vicinity. Class room, three hours a week; laboratory, *three hours a week. MR. JONES

75. AGRICULTURAL STATISTICS.—Study of the principles involved in the collection, analysis, and interpretation of agricultural statistics. Class room, one hour a week; laboratory, *three hours a week. MR. MERCHANT

76. AGRICULTURAL MARKETING.—A study of the present marketing structure, giving emphasis to agriculture. Detailed study of the marketing of some of the more important agricultural products. *Three hours a week*. MR. MERCHANT

77. AGRICULTURAL FINANCE.—Study of the farmers' credit problems including short time, intermediate, and long time credit. Two hours a week. MR. MERCHANT

79. AGRICULTURAL COOPERATION.—A study of principles involved in agricultural cooperative organizations. The case method will be employed. *Two hours a week*. Mr. MERCHANT

81, 82. CURRENT ECONOMIC PROBLEMS.—Study of our more important current economic problems in agriculture. One hour a week.

MR. MERCHANT

101. PRODUCTION COSTS AND FARM PRICES.—A study of the cost of producing important farm commodities in this state and in competing areas; relation of cost to price; efficiency of production under varying economic conditions. Prerequisite, Course 52. Time and hours to be arranged.

MR. JONES

102. ADVANCED AGRICULTURAL STATISTICS.—This course is a continuation of Course 75 giving special attention to the methods and practical application of correlation analysis involving two or more variables; multiple correlation; and linear and curvilinear relationships. Prerequisite, Course 75. *Time and hours to be arranged*. Given in alternate years; not given in 1929-30. MR. MERCHANT

103. ADVANCED FARM MANAGEMENT.—A continuation of Course 74 with special emphasis on the organization and management of specified types of farms under certain economic conditions, farm prices, and labor-efficiency. The student will be given an opportunity for study along some line in which he has a special interest. Prerequisite, Course 74. *Time and hours to be arranged.* MR. JONES

104. ADVANCED AGRICULTURAL MARKETING.—This course gives a student an opportunity to pursue advance work in the marketing of a specific agricultural commodity. Special emphasis will be given to the marketing of potatoes, apples, poultry, eggs, milk, butter, and cheese. Prerequisites, Courses 73, 76, and 79. *Time and hours to be arranged*. Given in alternate years; not given in 1928-29. MR. MERCHANT

AGRICULTURAL EDUCATION

PROFESSOR HILL

3. SPECIAL METHODS IN TEACHING AGRICULTURE.—The following topics are given consideration: The Smith-Hughes Act; the agricultural curriculum; seasonal sequence of topics; lesson plans; supervised study; laboratory work; field trips; room and equipment; supervised practical work; records. Class room, two hours a week; laboratory, †two hours a week.

4. PRACTICE TEACHING.—During the first six weeks of the spring semester the seniors will be expected to do directed teaching in an approved school. They will hand in daily lesson plans and will report on how these work out. While engaged in this work, they will be given an allowance to pay for their traveling expenses and board. Four hours credit.

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6. PRINCIPLES OF AGRICULTURAL EDUCATION.—This course deals with the history of agricultural education; a study of the purposes of agricultural education; types of schools; the rural school; consolidation of schools; the agricultural college; the extension service; prevocational agriculture, etc. *Two hours a week*.

AGRONOMY

PROFESSOR SIMMONS; ASSISTANT PROFESSOR SWIFT; ASSISTANT PROFESSOR SNYDER

Soils and Fertilizers

1. Soils.—Lectures and recitations on the origin, types, physical properties, moisture content, and distribution of soils, and their relation to

crop production. The fundamental principles underlying soil management for soil conservation and improvement will be studied. Class room, two hours a week; laboratory, *three hours a week. MR. SWIFT

3. SOIL FERTILITY.—This course deals with stable manures, green manures, commercial fertilizers, and soil amendments; also a study of soil organisms as affecting the plant food in the soil. *Two hours a week*.

MR. SWIFT

51. SOIL SURVEYING AND MAPPING.—A study is made of soil types, the principles of correlation, and methods of soil surveying and mapping. Lecture, two hours a week; laboratory, *three hours a week. MR. SWIFT

54. SOIL FERTILITY.—Soil improvement investigation. A review of the experimental work in this country and abroad. The application of these results to soil improvement and crop production problems. Prerequisites, Courses 1 and 3. Two hours a week. MR. SwIFT

Agricultural Engineering

32. FARM MECHANICS.—A study of the simpler laws of mechanics as applied to farm implements, farm machinery, heating, lighting, and water supply. Class room, two hours a week; laboratory, *three hours a week.

MR. SIMMONS, MR. SWIFT

33. FARM STRUCTURES.—The location, planning, designing, and construction of farm buildings; water systems, sewerage disposal, and concrete construction on the farm. Class room, two hours a week; laboratory, *three hours a week. MR. SIMMONS, MR. SWIFT

34. FARM SHOP.—Training in the use of the tools and equipment used in the ordinary construction and repair work found necessary on the farm. Laboratory, †four hours a week. Mr. SIMMONS, Mr. SWIFT

71. FARM ENGINEERING.—Farm surveying and leveling; the plotting of farms and measurements of land; a study of drainage; estimating the investment and returns for a system of drainage; the making of roads; and road materials. Class room, two hours a week; laboratory, *three hours a week. MR. SIMMONS, MR. SWIFT

72. FARM MACHINERY.—A study of machines for the farm, their operation, efficiency, and adjustment. Demonstrations and tests are made with various machines and implements. Class room, two hours a week; laboratory, *three hours a week. MR. SIMMONS, MR. SWIFT

74. FARM POWER.—A course dealing with the application of power to farm operations. The aim is to enable the student to understand the operation and care of the various forms of motors used for agricultural

purposes. Animal as well as other motor power will be studied. The gas engine will be studied in the laboratory. Class room, two hours a week; laboratory, *three hours a week. MR. SIMMONS, MR. SWIFT

81, 82. PROBLEMS IN AGRICULTURAL ENGINEERING.—Credit to be arranged. Mr. SIMMONS

Crops

11. FIELD CROPS.—A general course including a study of the most important cereal, grass, forage, and root crops, and their adaptation to systems of rotation, culture, and uses, with special reference to New England conditions. Class room, two hours a week; laboratory, †two hours a week. MR. SNYDER

12. FIELD CROPS.—A laboratory course in seed and grain identification, improvement by grading, testing, selecting, and preparing seed for planting. A collection of weeds and their seeds will be required. *‡Four* hours a week. MR. SNYDER

14. FIELD CROPS. CORN.—A course dealing with the production of corn and the care and marketing of the crop. Types and varieties of both field and sweet corn will be considered in this course. Class room, one hour a week; laboratory, †two hours a week. MR. SNYDER

15. FIELD CROPS. TUBERS.—A course dealing with the production, storage, and marketing of potatoes. Class room, one hour a week; laboratory, †two hours a week. MR. SNYDER

16. FIELD CROPS. FORAGE CROPS.—Lecture and laboratory work dealing with forage plants, roots, grasses, soiling crops, and hay crop production and grading for market. Special consideration is given to their adaptation to local conditions. Class room, one hour a week; laboratory, †two hours a week. MR. SNYDER

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17. GENETICS.—A study of the underlying causes of variations; the inheritance and transmission of these variations from one generation to the next; the development of the theories and laws of inheritance; and the relation of these theories and laws to present day practices in plant and animal breeding. Lecture, two hours a week; laboratory, †two hours a week.

MR. SNYDER

18. FIELD CROPS. CROP IMPROVEMENT.—A study of the principles and methods involved in field crop improvement. The work of experiment stations in this country and abroad is reviewed. Prerequisites, Courses 11 and 12. Two hours a week. MR. SNYDER

20. FIELD CROPS. POTATO DISEASES.—This course deals with the identification of all of the important potato diseases, their effect upon the

yield, and the method of their prevention. Given for students who have completed Course 15. Lecture, one hour a week; laboratory, †two hours a week. MR. SNYDER

62, 63. ADVANCED FIELD CROPS.—A course designed for advanced or graduate students preparing for experimental work, teaching, or plant breeding. Prerequisite, adequate training in botany and field crops. Time must be arranged with the instructor not later than the middle of the junior year. *Two or more hours a week.* MR. SNYDER

65, 66. SEMINAR.—A study of recent literature, problems, and experiments pertaining to agronomy and agricultural engineering. One hour a week. Mr. SIMMONS, Mr. SWIFT, Mr. SNYDER

67, 68. THESIS.—Three hours a week.

ANIMAL INDUSTRY

PROFESSOR CORBETT; ASSOCIATE PROFESSOR DORSEY; ASSISTANT PROFESSOR GARDNER; MR. HALL

Animal and Dairy Husbandry

2. TYPES AND BREEDS OF FARM ANIMALS.—A study of the types and breeds of farm animals. A course covering the history, development, and characteristics of farm animals. *Two hours a week*. MR. CORBETT

3. CARE, FEED, AND MANAGEMENT OF LIVE STOCK.—A course dealing with the selection, breeding, growing, and maintenance of horses, cattle,

sheep, and swine. Prerequisites, Courses 2 and 4. Two hours a week.

MR. CORBETT

4. LIVE STOCK JUDGING.—This course is designed to acquaint the students with the types and breed characteristics of farm animals, by use of the score card, comparative judging, and the selection of breeding stock. To be taken in connection with Course 2. Two hours a week. MR. HALL

5. LIVE STOCK JUDGING.—A continuation of Course 4. †Two hours a week. MR. HALL

6. LIVE STOCK FEEDING.—A study of the general principles of nutrition as applied to live stock, composition of feed stuffs, comparison and use of feeding standards, calculating rations, methods of feeding for economic production. Prerequisites, Course 3, Biochemistry 1 and 2. Two hours a week. MR. CORBETT

7. GENERAL DAIRYING.—Given by lectures, assigned reading, recitations, and laboratory practice. Milk; its secretion, composition, properties, pasteurization, separation; dairy practices in handling milk and cream, dairy equipment, use of common dairy machinery; test of dairy products for fat (Babcock method), acidity, total solids, common adulterations, and preservatives. Class room, two hours a week; laboratory, †four hours a week.

MR. DORSEY

8. BUTTER MAKING.—Lectures and laboratory practice in starter making, cream ripening, churning, and preparing butter for market. Prerequisite, Course 7. Class room, one hour a week; laboratory, *six hours MR. DORSEY a week.

9. CHEESE MAKING.—Lectures, recitations, and laboratory practice in the manufacture and curing of various types of cheese, including cheddar and soft cheeses adapted to the New England trade. The laboratory work requires six consecutive hours. Prerequisite, Course 7. Class room, two hours a week; laboratory, *six hours a week. MR. DORSEY

10. CONDENSED MILK.—A study of the manufacture of unsweetened and sweetened condensed milk and milk powder. Consideration is given to sanitary control of milk supply, factory methods, defects in products, and economic phases of the business. Prerequisite, Course 7. Two hours a MR. DORSEY week.

11. MARKET MILK.—A study of the market milk business from the standpoints of production, supply, sanitary control, transportation, processing, delivery, organization, and economic aspects. Prerequisite, Course 7. Two hours a week. MR. DORSEY

13. JUDGING MILK AND MILK PRODUCTS.—Study and practice of methods employed in scoring and judging milk and milk products. Prerequisite, Course 7. Laboratory, †two hours a week. MR. DORSEY

51. DAIRY TECHNOLOGY.—An advanced study of milk products and by-products, methods of manufacture and processing, scrutiny of recent literature relating to advances in dairy technique. Given by lectures, recitations, assigned readings, and round table conferences. Prerequisite, Course 7. Three hours a week. MR. DORSEY

52. Advanced Live Stock Judging and Management.—A laboratory course in which the individual student gets experience in handling live stock and preparation of stock for the show ring and market. As far as possible, visits will be made to live stock farms. Two hours a week.

MR. CORBETT, MR. HALL

53. Advanced Live Stock Feeding and Management.---Nutrition and feeding experiments, as well as the methods and practices of the most successful feeders in the production of milk, meat, and the rearing of horses are studied. Prerequisite, Course 6. Two hours a week. MR. CORBETT

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54. Advanced Live Stock Feeding.—A continuation of Course 53. Two hours a week. Mr. Corbett

55, 56. THESIS.—Three hours a week.

58. ICE CREAM MAKING.—Lectures on the manufacture of ice cream and ices. Laboratory practice in the manufacture of ice cream and ices. Prerequisite, Course 51. Class room, one hour a week; laboratory, *three hours a week. MR. DORSEY

60. ADVANCED ANIMAL BREEDING.—Principles and theories of breeding as applied to the live stock industry; study of pedigrees and records by the use of the different herd books; an economic study of the generative systems of domestic animals. Prerequisites, Course 3, and Veterinary Science 15. Three hours a week. MR. CORBETT, MR. HALL

61. ADVANCED ANIMAL INDUSTRY.—A consideration of market classes and types, pasture and feed lot management, farm and packing house methods of preparing animal products for the market. Prerequisite, Course 6. *Two hours a week*. MR. CORBETT

63, 64. ADVANCED DAIRY PRODUCTS TESTING.—The work in this course comprises the study of various methods for testing dairy products and the study of the practical application of such new tests as may be developed in the future. Special attention is given to instruction in the Mojonnier test and the modernized Gerber test. Prerequisite, Course 51. Open to senior major students in the Department of Animal Industry and to graduate students in that department. Laboratory, lectures, and assigned reading. Laboratory, †two hours a week. MR. DORSEY

66. DAIRY MACHINERY.—Milk and milk products machinery, acces-

sory machinery, and plant layout. Prerequisite, Course 51. Laboratory, †two hours a week. MR. DORSEY

Poultry Husbandry

1. TYPES, BREEDS, AND MANAGEMENT OF POULTRY.—Lectures and recitations on the origin and development of the types, breeds, and varieties of fowl, ducks, geese, and turkeys; the general care, feed, and management of farm poultry; and the marketing of poultry products. Laboratory exercises include practice in poultry management, poultry judging, and the preparation of poultry products for market. Class room, two hours a week; laboratory, †two hours a week. MR. GARDNER

2. Types, Breeds, and Management of Poultry.—A continuation of Course 1. Class room, one hour a week; laboratory, †two hours a week. Mr. Gardner

3. COMMERCIAL POULTRY FARMING.—Lectures and recitations on the business of poultry farming; the systems and operations in use on large poultry farms; the planning of specialized poultry farms. In so far as possible, visits will be made to poultry farms. Class room, one hour a week; laboratory, †two hours a week. MR. GARDNER

4. POULTRY FEEDING.—Lectures and recitations on the general principles of nutrition as applied to poultry; poultry feeds; calculating rations; estimating cost of feeds and feeding, and methods of feeding for economical production. Prerequisites, Courses 1 and 2. Class room, two hours a week. MR. GARDNER

5. POULTRY LITERATURE.—A study of experimental data on poultry management. Prerequisites, Courses 1, 2, and 4. Two hours a week.

MR. GARDNER

6. INCUBATION AND BROODING.—Lectures and recitations on the principles of incubation and brooding. Laboratory practice in incubator and brooder management. Prerequisites, Courses 1 and 2. Class room, three hours a week; laboratory, †two hours a week. MR. GARDNER

7. POULTRY BREEDING.—Lectures and recitations on the principles of breeding as applied to poultry; the inheritance of egg productivity; systems of breeding; mating of utility and exhibition poultry and care of breeding stock. Prerequisites, Courses 1, 2, and 4. Class room, two hours a week; laboratory, †two hours a week. MR. GARDNER

51, 52. THESIS.—Three hours a week.

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BACTERIOLOGY AND VETERINARY SCIENCE

PROFESSOR RUSSELL; ASSOCIATE PROFESSOR HITCHNER

1. BACTERIOLOGY.—A laboratory course in general bacteriology. Open to all students. The work includes the preparation of the usual culture media and the study of the morphological and biological characteristics of typical bacteria. Some outside reading will be required. Required of students taking major work in Agriculture. Course 3 must be taken in conjunction. *†Six hours a week*. MR. RUSSELL, MR. HITCHNER

2. BACTERIOLOGY.—Similar to Course 1. Offered for students in the College of Technology and others who may elect it. Required for juniors in Horticulture. Special emphasis will be placed upon bacteriology of water and sewage. Prerequisite, Course 3. *†Six hours a week.*

MR. RUSSELL, MR. HITCHNER

3. BACTERIOLOGY.—A lecture course open to all students. It should be elected by students taking Course 1 as well as by students not taking a laboratory course. Subjects considered will include the history of bacteriology; classification and biological characteristics of bacteria, bacteria in air, water, soil, and dairy products; the relation of bacteria to health and disease; immunity. *Two hours a week*. Mr. HITCHNER

4. ELEMENTARY SANITARY BACTERIOLOGY.—A laboratory course open to students majoring in sanitary engineering. The course will include work in general bacteriological technique with special emphasis upon the microbiology of water and sewage. Laboratory, †*four hours a week*.

MR. HITCHNER

12. VETERINARY SCIENCE.—This course deals with the anatomy, physiology, and diseases of poultry. Two hours a week. MR. RUSSELL

14. VETERINARY SCIENCE.—A combined lecture and laboratory course dealing with the anatomy and physiology of our domestic animals, and their treatment to preserve and restore health. *Three hours a week*.

MR. RUSSELL

15. VETERINARY SCIENCE.—A continuation of Course 14. Prerequisite, Course 14. Two hours a week. MR. RUSSELL

16, 17. VETERINARY SCIENCE.—A clinic open to all students studying veterinary science. One hour a week. MR. RUSSELL

19. VETERINARY SCIENCE.—Veterinary materia medica and pharmacy. Two hours a week. MR. RUSSELL

20. VETERINARY SCIENCE.—Physiology of domestic animals. Two hours a week. MR. RUSSELL

52. BACTERIOLOGY.—A detailed study of the physiological, morphological, biochemical, and serological activities of bacteria; isolation and identification of pathogens together with animal inoculation and serological tests. Prerequisites, Courses 1 or 2 and 3. Class room, one hour a week; laboratory, †four hours a week. MR. HITCHNER

53. BACTERIOLOGY.—A study of the physiology of bacteria; bacteriological analysis of water; and a study of soil bacteria. Prerequisites, Courses 1 or 2 and 3. Class room, one hour a week; laboratory, †four hours a week. MR. HITCHNER

54. BACTERIOLOGY.—A course which will consider such dairy experiments as the effect of pasteurization on milk bacteria; quantitative bacterial determination of butter and cheese; study of typical milk bacteria; use of special biochemic tests for quality of milk; study of effect of separators, clarifiers, coolers, etc., on the bacterial content of milk and cream. Prerequisite, Course 52. Class room, one hour a week; laboratory, †four hours a week. MR. HITCHNER 55. BACTERIOLOGY.—An experimental consideration of ammonification, nitrification, and denitrification in the soil; study of relation of bacteria to soil fertility; symbiosis. Prerequisite, Course 52. *Four to six hours a week*. MR. HITCHNER

57. BACTERIOLOGY.—Lectures and reference work upon various problems relating to bacteria and soil fertility; discussion of ammonification, nitrification, and denitrification in the soil; a consideration of symbiosis. Open only to students taking Course 55. Prerequisite, Course 53. Two hours a week. MR. HITCHNER

101, 102. BACTERIOLOGY.—This is a laboratory course for students who desire to pursue some particular line of bacteriological investigation. Open only to students who have done considerable work in bacteriology. The kind of work and the time will be arranged to suit individual students.

MR. HITCHNER

BIOLOGICAL AND AGRICULTURAL CHEMISTRY

PROFESSOR MERRILL; ASSISTANT PROFESSOR SMITH

1. BIOCHEMISTRY.—Lectures and recitations on the composition of the plant; the source, nature, and assimilation of plant food; fermentation, its nature, effects, and control. Two hours a week. MR. MERRILL

2. BIOCHEMISTRY.—A continuation of Course 1. The composition of the animal body and of food materials; the adaptation of food to animal requirements; the chemical changes involved in the digestion and assimilation of foods; respiration; absorption and liberation of energy. *Three hours a week*. MR. MERRILL

3. ECONOMIC GEOLOGY.—A course in applied geology, including a general survey of our mineral resources, with special reference to the mineral fuels; the distribution and manner of occurrence of the more useful metals; the economically important nonmetallic minerals; and a study of the rocks and their uses as building stone, as road material, and as sources of lime and cement. *Two hours a week*. MR. MERRILL

4. BIOCHEMISTRY.—A laboratory course to accompany Course 2, and open only to those students taking that course. Laboratory, †four hours a week. Mr. SMITH

5. GEOLOGY.—A study of the earth's history and development, with especial attention to dynamical, structural, and physiographical geology. Three hours a week. MR. MERRILL

6. AGRICULTURAL CHEMISTRY.—This course includes a study of the origin and composition of soils; the source and composition of fertilizing materials; the fixation of atmospheric nitrogen; the composition of insecticides and fungicides; the chemistry of milk and other dairy products. Prerequisite, Course 1. Two hours a week. MR. MERRILL

7. FOOD ANALYSIS.—A brief introduction to quantitative analysis, with laboratory practice in the analysis of foods; lectures on food adulteration and methods for its detection. Laboratory, $\dagger six$ hours a week.

MR. MERRILL, MR. SMITH

MR. MERRILL, MR. SMITH

8. BIOCHEMISTRY.—An abridged course, including a study of the protein, fats, and carbohydrates, the digestive enzymes and processes, the tissues and secretions of the body. For Home Economics students only. Class room, three hours a week; laboratory, †four hours a week.

9. ORGANIC CHEMISTRY.—A brief course designed for students in Agriculture and Home Economics. Class room, two hours a week; laboratory, †two hours a week. MR. SMITH

11. AGRICULTURAL ANALYSIS.—A brief laboratory course designed to give the student a working knowledge of the methods employed in the quantitative analysis of fertilizers, and the more common agricultural products. Open only to juniors and seniors in Agriculture. Prerequisites, Courses 1, 2, 6, and 9. Laboratory, †four hours a week. MR. SMITH

12. AGRICULTURAL ANALYSIS.—A continuation of Course 11, dealing with special analytical work with butter, oleo, ice cream, condensed and evaporated milk, milk powder, and cheese. Special problems in these products may be assigned to each student. Prerequisite, Course 11. †Fourhours a week. MR. SMITH

13. TEXTILE CHEMISTRY.—A laboratory course dealing with the study of composition and properties of textile fibers, methods of scouring, bleaching, dyeing, and finishing of fibers; qualitative analysis of finishing materials; and methods of testing composition of fabrics. Prerequisite, Course 9. †Four hours a week. MR. SMITH

51. BIOCHEMISTRY.—Lectures and recitations on the composition of the plant; the source, nature, and assimilation of plant food; the composition of the animal body and of food materials; the adaptation of food to the animal requirements; the chemical changes involved in the digestion and assimilation of foods; respiration; absorption and liberation of energy; general metabolism; the chemical processes and methods of investigation by which these subjects are studied. Prerequisites, Chemistry 51 and 52. Three hours a week. MR. MERRILL

52. LABORATORY BIOCHEMISTRY.—A study of the carbohydrates, fats, and protein bodies; the digestive enzymes; the blood, muscles, bones, and other tissues of the body; milk, bile, and other secretions. A continuation of the preceding course. †Four hours a week. MR. SMITH

60. ADVANCED BIOCHEMICAL METHODS.—A course in the quantitative analysis of fodders, fertilizers, milk, butter, and other dairy products. The course is designed for students desiring to take up experiment station and inspection work. Prerequisites, Chemistry 51, 52, and 61. *†Eight hours a week*. MR. SMITH

BIOLOGY

The courses in this department are described under the College of Arts and Sciences.

FORESTRY

PROFESSOR BRISCOE; ASSISTANT PROFESSOR CHAPMAN; ASSISTANT PROFESSOR STEWART

1. ECONOMICS OF FORESTRY.—The importance and scope of the subject; the influence of forests on the conservation and distribution of water; influence on soils, topography, and public health; the relation to agriculture, stock raising, mining, railroads, manufactures, and industries in general; the character, extent, and distribution of forest resources, national, state, and private. Required of all freshmen majoring in Forestry, and open to all students. *Two hours a wcek*. MR. BRISCOE

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2. WOODLOT FORESTRY.—The general principles of forestry, with special reference and application to the farm woodlands, particularly in this region. Lectures and text book work in elementary systems of cutting, estimating, protection, and reforestation. Especially for agricultural students. Open to all students. *Two hours a week*. MR. CHAPMAN

3. LUMBER INDUSTRY.—A course for seniors in Forestry, dealing with milling and marketing problems of the lumber industry in America. First half of semester. Four hours a week. MR. STEWART

4. WOOD PRESERVATION.—The durability and seasoning of native woods; preservatives in commercial use; methods of operation and equip-

ment of preserving plants. Special attention given to posts, ties, poles, paving-blocks, and structural timbers. Prerequisites, Biology 2, 33, and 34. First half of semester. Two hours a week. MR. CHAPMAN

5. HISTORY OF FORESTRY.—The development of forestry in European countries and in the United States. First half of semester. Two hours a MR. BRISCOE week.

6. FOREST MENSURATION.-A continuation of Course 11, taking up the study of age, growth, taper, form-factors, yield and volume tables. Mr. Chapman Two hours a week.

8. FOREST MENSURATION FIELD WORK.—To be taken in connection with Course 6. Collection of data for making a map of an assigned tract; studies of age, growth, and yield under different conditions and in various types; determination of form-factors; construction of volume tables. *Six hours a week. MR. CHAPMAN

9. FOREST PRODUCTS.—Dealing with forest products other than logs and lumber, such as pulp-wood, veneers, shingles, lath, tight and slack cooperage, hoops and headings, excelsior, vehicle woods, spool stock, turpentine, tannin, gums, syrups, dye-woods, and charcoal. Methods of utilization, markets, and values. First half of semester. Two hours a week.

MR. BRISCOE

10. FOREST PROTECTION.—Systems of fire protection practiced by the federal and state governments, and by individuals and associations; protection against other natural enemies of the forest such as insects, fungi, wind, animals, and weed growth. Last half of semester. Two hours a week. Mr. Chapman

11. FOREST MENSURATION.-Lectures and recitations. Instruction in the theory and application of forest measurements. Calculation and computations from data obtained in the field work. Course 13 to accompany this course. Two hours a week. MR. CHAPMAN

12. PRACTICE OF FORESTRY.-Applied systems of silviculture and management considered in relation to the commercially important species and types of forest in the United States; discussions of management as practiced in Europe, and of the application of such systems to forest conditions in this country. Forestry seniors only. Two hours a week. MR. BRISCOE

13. FOREST MENSURATION FIELD WORK.—Practical field work to be taken in connection with Course 11. The use of instruments, scaling, and estimating. *Six hours a week. MR. CHAPMAN

14. ADVANCED NURSERY PRACTICE.—Additional field work in nursery and actual forest planting operations. For those who are taking Forestry 18, and show special adaptability for the work. Second half semester. *†Eight hours a week.* MR. BRISCOE 15. SILVICULTURE.—A study of silvics, the life factors determining the character and form of forest vegetation. The development of forest types and the silvical characteristics of stands. Cultural measures in the forest; the forest regions of the United States. Prerequisites, Biology 33 and 34. First half of semester. Two hours a week. MR. BRISCOE

16. SILVICULTURE.—A continuation of Course 15, with special attention to the silvicultural systems of management; the application of thinnings; methods of reproduction both natural and artificial. *Two hours a week.* MR. BRISCOE

17. SILVICULTURE FIELD WORK.—Assigned problems in connection with Course 15. Studies of tolerance. Special studies and practical work in the forest; the preparation of a type map and detailed silvicultural report. First half of semester. *Six hours a week. MR. BRISCOE

18. NURSERY PRACTICE.—To be taken in connection with Course 16. Tests of the germinating qualities of seeds of forest trees, and a study of seeds and seedlings. Planting and transplanting in the State Forest Nursery (a minimum of 72 hours actual time regardless of schedule changes on account of weather); practice in field planting. *Six hours a week.

MR. BRISCOE

19. LUMBERING.—The lumber industry in the United States considered from the economic standpoint; an account of the methods of logging in different regions. Text book and lectures. Forestry seniors only. First half of semester. Two hours a week. MR. STEWART

20. FOREST FINANCE.—Business principles applied to forest management. Forest valuation; the theory of the normal forest; calculations for sustained yield and continuous revenue from forest resources; forms for accounts and cost keeping; preparation of reports for federal income tax on timber lands. Forestry seniors only. *Two hours a week*. MR. BRISCOE

21. LUMBERING FIELD WORK.—To be taken in connection with Course 19. Inspection of the operation and layout of pulp mills, saw mills, box factories, novelty mills and others, with detailed study, charts, and reports on the methods of handling, storage, and transportation of logs, pulpwood, and raw materials. First half of semester. *Six hours a week. MR. STEWART

22. POLICY AND LAWS.—National and State forestry policy and administration; relation of government, corporations, and individuals in regard to forestry policies and applied forest management; laws of the federal government and of the several states concerning forests and forestry. Forestry seniors only. *Two hours a week*. MR. BRISCOE

23, 24. CURRENT FORESTRY LITERATURE.—Reviews of periodicals, book, and current forestry literature; preparation of a card index under subject

and author headings. Forestry seniors only. One hour a week. MR. BRISCOE

25, 26. THESIS.—Credits of from two to six hours will be allowed students desiring to elect thesis work in forestry. Work on original problems and investigations may be undertaken with the approval of the department. *Time to be arranged*.

30. WOOD IDENTIFICATION AND USES.—The identification and classification of the economic woods of the United States, based on simple lens inspection; the technical qualities of various species and their uses in the arts and trades; their commercial production. Prerequisites, Biology 2, 33, and 34. Two hours a week. MR. STEWART

32. FOREST MANAGEMENT.—Applied forest finance; appraisal of timber and forest soil; appraisal of damages; regulation of timber cut; forest working plans. Two hours a week. MR. STEWART

34. PREPARATION AND DRAFTING OF MAPS.—A course designed primarily for sophomore students in forestry. Instruction is given in the correct drafting, preparation, and coloring of maps. The student is taught to use the accepted conventional signs and symbols of mapping, and to prepare maps for reports and summaries of field surveys. Prerequisites, Drawing 1 and 2. *Three hours a week. MR. STEWART

Courses in Camp

31. LOGGING ENGINEERING.—A course in practical logging as applied to a typical spruce pulp-wood operation in Maine. *Sixteen hours a week, second half semester. MR. STEWART

33. FOREST MANAGEMENT.—Business principles involved in the management of a forest area, including organization, regulation, and administration, leading to the preparation of a complete working-plan for the area. *Sixteen hours a week, second half semester. MR. STEWART

35. CRUISING AND MAPPING.—The making of topographic maps and detailed estimates of standing timber. Methods of locating trails, high-ways, bridges, telegraph lines, ranger and lookout stations, and fire-lines. Special emphasis is placed on methods producing practical results of sufficient accuracy, at a minimum cost. *Sixteen hours a week, second half semester. MR. STEWART

HOME ECONOMICS

PROFESSOR GREENE; ASSISTANT PROFESSOR BANCROFT; ASSISTANT PROFESSOR SWEETMAN; MISS CAMPBELL; MISS OSGOOD; MISS GOULD

1, 2. TEXTILES AND CLOTHING.—A study of fibers and fabrics and the hygienic, economic, and social problems involved in the selection of ready made clothing. The laboratory work consists of the making of plain garments, involving drafting and design, and selection of materials. Recitation, two hours a week; laboratory, †four hours a week.

MISS BANCROFT, MISS OSGOOD

3. DESIGN.—A first course in art expression. Lecture and recitation on the principles of design as they may be applied to house decoration, costume design, advertising, and related subjects. Some technique in the use of color, line, balance, rhythm, emphasis, and proportion is acquired in the laboratory. Recitation, one hour a week; laboratory, †two hours a week.

MISS BANCROFT

4. DESIGN.—A continuation of Course 3. Laboratory, †*four hours* a week. Miss Bancroft

5, 6. FOODS.—A study of the nutritive value, principles of preparation and buying of foods. The laboratory work consists in the preparation of the various types of foods, marketing studies, and the planning and serving of meals. Prerequisites, Chemistry 1 and 2. Recitation, two hours a week; laboratory, †four hours a week. Mrs. Sweetman, Miss Oscood

9. SANITATION AND PUBLIC HEALTH.—A study of the health of the

individual in relation to the community's responsibility. Includes housing problems such as ventilation, plumbing, water supply, sewage disposal, zoning; school health problems; recreational needs of adults and children; conditions in industry; and a study of communicable diseases with emphasis on the methods of control. *Three hours a week*. MISS GREENE

12. HOUSEHOLD MANAGEMENT.—Homemaking as a profession, brief history of the family, economic and social principles of the household, standards of living, budgets, schedules, and equipment. Four hours a week. MISS CAMPBELL

13. APPLIED DESIGN.—The application of design principles to problems of industrial art, hand weaving, and embroidery. Laboratory, †*four hours a week*. MISS BANCROFT

14. CHILD CARE AND CHILD WELFARE.—A study of the physical, mental, and social needs of the child, including prenatal care, postnatal care,

COLLEGE OF AGRICULTURE

preschool age, personal hygiene, adolescent period, some problems of education in the home, the responsibility of the family and community to the child. *Three hours a week.* MISS CAMPBELL

15. MILLINERY.—The principles of design and color are applied to millinery. The work consists of a consideration of materials, the use of straw braids, the covering of frames, and the making and application of trimmings. Open only to juniors and seniors. Laboratory, *ftwo hours a week*. MISS BANCROFT

17, 18. HOUSE CONSTRUCTION AND FURNISHING.—The evolution of the house, a study of house furnishings, their color, design, and cost, and practical problems in interior decoration. The laboratory work consists in the planning of the house, making plans and estimates for house furnishings, and refinishing furniture. Field trips. Recitation, one hour a week; laboratory, †four hours a week. MISS CAMPBELL

21, 22. HOUSEHOLD ADMINISTRATION.—A laboratory course in which the students organize and carry on the activities of the Practice House in which they reside. The care of an infant; the financial management of the house, and the keeping of household accounts; the planning, buying, preparing, and serving of meals; and the care of the house are included. Three credit hours. MISS CAMPBELL

25. ECONOMICS OF THE HOUSEHOLD.—A consideration of the family as a unit for consumption including the principles of selection of food, clothing, shelter, and the use of the budget. Open to Arts and Sciences students, above freshman rank, only. *Three hours a week*. Mrs. Sweetman

26. The Contemporary Home.—A study of the functions of the home as an environment for human development, the factors involved in successful homemaking, the child in the home, his development and welfare. Open to Arts and Sciences students, above freshman rank, only. Three hours a week. Mrs. Sweetman

51. ADVANCED CLOTHING.—Economics, history, design, and color are studied in relation to dress. In the laboratory designing by modeling on the dress form, alteration and adaptation of commercial patterns, and the selection of materials suitable for the individual are studied with the technique of making and fitting silk and wool dresses, tailoring of coats, and the construction of children's clothing. Prerequisites, Courses 1, 2, 3, 4. Recitation, two hours a week; laboratory, †four hours a week. MISS BANCROFT

52. ADVANCED CLOTHING AND COSTUME DESIGN.—A continuation of Course 51. Two hours a week are used in the study of the special application of design principles of line, color, dark and light, and texture to the costumes of the individual. Laboratory, †six hours a week. MISS BANCROFT

53. ADVANCED FOODS.—A study of the application of biochemical methods in the development of principles of food preparation. Prerequisites, Courses 5 and 6, Biochemistry 8. Credit as arranged, two or three hours.

MRS. SWEETMAN

54. NUTRITION AND DIETETICS.—A study of the principles involved in normal human nutrition at all ages. Calculation and preparation of dietaries in the laboratory. Prerequisites, Courses 5 and 6, and Biochemistry 7. Recitation, three hours a week; laboratory, †four hours a week.

MRS. SWEETMAN, MISS OSGOOD

56. HOME ECONOMICS EDUCATION.—The principles of teaching as applied to Junior and Senior High School Home Economics. A study of aims, selection of subject matter, and choice of method as exemplified in current literature, courses of study, and text books. Organization problems, equipment, budget, laboratory and classroom management are studied. A survey of the history and scope of the home economics movement is included. Open to seniors. *Three hours a week*. MISS GREENE

57, 58. THESIS.—Different phases of home economics such as experimental foods, nutrition, clothing, or household management. Two to four hours a week. MISS GREENE, MRS. SWEETMAN

59, 60. SPECIAL PROBLEMS.—Individual or class problems in the various fields of home economics affording students the opportunity to pursue lines of special interest. As the content of the course varies from year to year it may be taken more than once.

MEMBERS OF THE DEPARTMENTAL STAFF

71, 72. SUPERVISED TEACHING.-A course in directed teaching in

home economics. Students teach classes in the upper grades and high school at Brewer. Miss Gould

102. ADVANCED NUTRITION.—A study of methods of research in nutrition and of recent advances in the field. Prerequisite, Course 54. Credit as arranged, two or three hours. Mrs. Sweetman

HORTICULTURE

PROFESSOR WARING; MR. BABB; MR. WOODBURY

1. COMMERCIAL POMOLOGY.—The commercial apple industry and its methods in Maine and competing regions, with minor attention to other tree fruits. Laboratory exercises include grading and packing and visits to commercial-scale orchards, packing houses, and storage plants. Class room, two hours a week; laboratory, †two hours a week. MR. WARING

COLLEGE OF AGRICULTURE

2. TREE FRUIT PRODUCTION.—A study of the underlying principles and practical methods involved in the planting and subsequent care of the orchard fruits of our region, leading to the production of profitable crops. Class room, two hours a week; laboratory, *three hours a week.

MR. WARING

3. Systematic Pomology.—A study of the pomologically important groups of tree and small fruits, together with practice in the identification and judging of varieties. Prerequisite, Biology 31. Class room, two hours a week; laboratory, †two hours a week. MR. WARING

5. LANDSCAPE GARDENING.—A study of the principles of landscape art and the methods and plant materials used in executing landscape plans. Special attention is given to the improvement of the home grounds. Class room, two hours a week; laboratory, †two hours a week. MR. WOODBURY

7. GENERAL FLORICULTURE.—A study of the culture and uses of flowers for commercial purposes. Methods of shipping and marketing will be considered. Class room, two hours a week; laboratory, †two hours a week. MR. WOODBURY

8. DECORATIVE FLORICULTURE.—A continuation of Course 7 designed to give a knowledge of the culture and uses of bedding and other garden plants and of floral design. Greenhouse types and their heating and construction will also be considered. Class room, two hours a week; laboratory, †two hours a week. MR. WOODBURY

10. SMALL FRUIT PRODUCTION.—Selection of varieties, and methods recommended for the commercial production and handling of such fruits as strawberries, grapes, raspberries, blackberries, and blueberries. Class room, two hours a week; laboratory, †two hours a week. MR. BABB

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11, 12. THESIS.—Three hours a week.

20. VEGETABLE GARDENING.—A course dealing with the best commercial practices and the results of recent experimentation as applied to vegetable gardening. Class room, two hours a week; laboratory, †two hours a week. MR. BABB

21. COMMERCIAL OLERICULTURE.—This course is designed to include harvesting, marketing, and systematic study of types and varieties of vegetables; also storage and care of vegetables for seed production. Prerequisite, Course 20. Class room, two hours a week; laboratory, †two hours a week. MR. BABB

50. PLANT IMPROVEMENT.—Principles of genetics and related theories applied to the creation and improvement of horticultural varieties, with experimental technique. Prerequisite, Course 3. Two hours a week.

Mr. Waring

51, 52. SEMINAR.—Preparation of papers, followed by class room presentation and discussion, dealing with a wide range of topics related to horticulture. One hour a week. MR. WARING, MR. BABB, MR. WOODBURY

54. LANDSCAPE GARDENING.—A detailed study of the application of landscape principles to estates, parks, subdivisions, cemeteries, and golf courses, and the care of these. Office management, fees, and other phases of the profession will also be considered. Prerequisite, Course 5. Class room, two hours a week; laboratory, *three hours a week. MR. WOODBURY

55. VEGETABLE FORCING.—The culture of vegetables under glass. Attention is given to types of greenhouses for the purpose, soil sterilization, fumigation, and special fertility problems, and to marketing. Prerequisite, Course 20. Class room, two hours a week; laboratory, *three hours a week. MR. BABB

56. PLANT PEST CONTROL.—A study of the principal diseases of horticultural plants, together with the selection and use of spraying and dusting equipment and materials in disease and insect control. Prerequisite, Course 1 or 2. Class room, one hour a week; laboratory, †two hours a week.

MR. WARING

61, 62. CURRENT TRENDS IN HORTICULTURE.—The objects will be, thru a critical examination of current literature, to establish a viewpoint and bring the knowledge of the student up to date on recent developments in horticultural theory and practice. Open to seniors and graduate students. One or two hours a week by arrangement. MR. WARING

101, 102. HORTICULTURAL INVESTIGATIONS.—Credit and hours arranged. MR. WARING

103, 104. RESEARCH METHODS.—Instruction in the application of scientific method and equipment to the attack and solution of horticultural problems, and in the preparation of manuscript for publication. Credit and hours arranged. Mr. WARING

College of Arts and Sciences

FACULTY OF INSTRUCTION

JAMES STACY STEVENS, LL.D., Litt.D., Dean and Professor of Physics LUCIUS HERBERT MERRILL, Sc.D., Professor of Biological and Agricuitural Chemistry

JAMES NORRIS HART, C.E., Sc.D., Ph.D., Professor of Mathematics and Astronomy

JOHN HOMER HUDDILSTON, Ph.D., Professor of the Greek Language and Literature and Lecturer on Art History

GEORGE DAVIS CHASE, Ph.D., LL.D., Professor of Latin CAROLINE COLVIN, Ph.D., LL.D., Professor of History and Government Roy MERLE PETERSON, Ph.D., Professor of Spanish and Italian ROBERT RUTHERFORD DRUMMOND, Ph.D., Professor of German HARLEY RICHARD WILLARD, Ph.D., Professor of Mathematics JOHN H ASHWORTH, Ph.D., Professor of Economics and Sociology CHARLES ANDREW BRAUTLECHT, Ph.D., Professor of Chemistry HAROLD MILTON ELLIS, Ph.D., Professor of English ALBERT LEWIS FITCH, Ph.D., Professor of Physics FRANÇOIS JOSEPH KUENY, L. es L., Professor of French JOHN WILLIAM DRAPER, Ph.D., Professor of English MARK BAILEY, M.A., Professor of Public Speaking CHARLES ALEXIUS DICKINSON, Ph.D., Professor of Psychology OLIN SILAS LUTES, Ph.D., Professor of Education RONALD BARTLETT LEVINSON. Ph.D., Professor of Philosophy FERDINAND HENRY STEINMETZ, Ph.D., Professor of Botany DONNELL BROOKS YOUNG, Ph.D., Professor of Zoology BERTRAND FRENCH BRANN, M.S., Associate Professor of Chemistry AVA HARRIET CHADBOURNE, Ph.D., Associate Professor of Education ALBERT AMES WHITMORE, M.A., Associate Professor of History and Government

NOAH ROSENBERGER BRYAN, Ph.D., Associate Professor of Mathematics ALBERT MORTON TURNER, Ph.D., Associate Professor of English ADELBERT WELLS SPRAGUE, M.A., Director of Music MAYNARD FRED JORDAN, M.A., Associate Professor of Mathematics and Astronomy

HARRY CURTIS MITCHELL, B.D., Ph.D., Associate Professor of History and Government

KENNETH STILLMAN RICE, Ph.D., Associate Professor of Zoology CLIFFORD STETSON PARKER, Ph.D., Associate Professor of French HARRY WOODBURY SMITH, M.S., Assistant Professor of Biological and

Agricultural Chemistry

WARREN STANHOPE LUCAS, M.A., Assistant Professor of Mathematics WALTER FRENCH, Ph.D., Assistant Professor of German

EVELYN BUCHAN, M.A., Assistant Professor of Economics and Sociology

FRANCES ELIZABETH ARNOLD, M.A., Assistant Professor of Spanish and Italian

MARION STEPHANIE BUZZELL, M.A., Assistant Professor of French *Irving Trefethen Richards, M.A., Assistant Professor of English WALTER WHITMORE CHADBOURNE, M.B.A., Assistant Professor of Economics

and Sociology

CHARLES BURTON CROFUTT, Ph.D., Assistant Professor of Physics ANNA JEAN MILL, Ph.D., Assistant Professor of English Achsa Mabel Bean, M.A., Assistant Professor of Zoology Donald Stover Piston, B.S., Assistant Professor of Physics CHARLES ORVILLE DIRKS, M.S., Assistant Professor of Entomology †WILLIAM FRANCIS SCAMMAN, B.A., Assistant Professor of English Richard George Wood, M.A., Assistant Professor of History and

Government

FREDERICK SHAW YOUNGS, B.S., B.A., Lecturer in Economics
LYLE CLAYTON JENNESS, M.S., Instructor in Chemistry
HERMAN SAMUEL SILVERMAN, M.A., Instructor in Mathematics
EARL MAYNARD DUNHAM, M.A., Instructor in Physics
FAY HYLAND, B.S., Instructor in Botany
HAIG DEYIRMENJIAN (DERMEN), M.S., Instructor in Botany
ADA COHEN, B.A., Instructor in German
FREDERICK GARDINER FASSETT, JR., M.A., Instructor in English
CECIL GLADSTONE GARLAND, M.A., Instructor in Economics and Sociology
ZAIDEE EUDORA GREEN, LL.M., B.A., Instructor in English
ALICE LOUISE HART, Ed.M., Instructor in Education
HERSCHEL LEONARD BRICKER, B.A., Instructor in Public Speaking
EDWARD NEWCOMB BRUSH, M.A., Instructor in Psychology
LOUIS CABRERA, B.A., Instructor in Spanish
GORDON MACKENZIE FERGUSON, M.A., Instructor in History and Government

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*On leave of absence, spring semester, 1929. †Granted leave of absence for 1929-30.

MAURICE WILLYLE KELLEY, B.A., Instructor in English GRANT GARNSEY LAVERY, B.S., Instructor in Mathematics NANCY HARPER MCCREARY, M.A., Instructor in English JOHN EMMONS STEWART, M.A., Instructor in Mathematics WALTER REGINALD WHITNEY, B.S., Instructor in English MARY PAULINE AIKEN, B.A., Graduate Fellow in Latin KATHRYN SCHANLEY WOODBURY, B.A., Graduate Fellow in French LESTER LYLE SCHMITTER, B.A., Graduate Fellow in Economics and Sociology ELSIE FURBUSH BRICKETT, B.A., Graduate Fellow in English CARL HAVELOCK WEDELL, B.Ph., Graduate Fellow in Psychology LAURA GREEN PEDDER, B.A., Graduate Scholar in English KARL DAVIS LARSON, Graduate Scholar in Physics

GENERAL INFORMATION

The College of Arts and Sciences offers a course of liberal training equivalent to that of the standard New England college. It designs particularly to meet the needs of three classes of students:

- 1. Men and women who desire to pursue a cultural college course.
- 2. Men and women who desire to enter professional schools.

3. Men and women who plan to fit themselves for the profession of teachers in secondary schools, or for school superintendents.

ADMISSION

The requirements for admission are given in full elsewhere in the catalog. They are practically the same as for other New England colleges and may be met by a four-year preparatory course in a good high school or academy. Graduates of Maine normal schools who are also graduates of an approved high school will receive sophomore standing.

The regular admission requirements will be applied to all students who enter with advanced standing. Students must make up all entrance requirements before registering as juniors. Those who transfer from other colleges must make them up within a year.

FRESHMAN STUDIES

The character of the work of the first year is conditioned somewhat upon the subjects offered for admission. It is to a large extent prescribed. Besides the studies printed on the freshman registration blank the only courses open to freshmen are Music, English 18 (Literature for Freshmen), and Military 11 (Band).

GRADUATION REQUIREMENTS

Every candidate for the Bachelor of Arts degree is required to complete the following work in college: (a) ten hours in Group 1, of which six are prescribed in English 1, 2, and the remainder may be elected from any of the courses included in the group; (b) ten hours in Group 2; (c) ten hours in Group 3; (d) ten hours in Group 4; (e) seven hours in Group 5 (for men students); (f) two years' work without credit in Group 6.

Thirty hours must be completed in the major subject, and 125 hours for graduation. Ninety-five of the hours required must be completed with a grade of C or above. If a student transfers from another institution three-fourths of all work done after transferring must be passed with a grade of C or better. Grades below C are not accepted from other institutions.

1. ENGLISH GROUP.—This comprises the courses offered in the Departments of English and Public Speaking, and the courses in Biblical Literature and Bibliography.

2. FOREIGN LANGUAGE GROUP.—This comprises the courses in language and literature offered in the Departments of French, German, Greek, Latin, and Spanish and Italian. No credit is given for less than one year's work in a beginning language. This rule applies to German 1, 2; Greek 5, 6; Italian 1, 2; Latin 1, 2; Spanish 1, 2; 1a, 2a.

3. SCIENCE AND MATHEMATICS GROUP.—This comprises the courses offered in mathematics and the biological and physical sciences, and includes the courses offered by the Departments of Biology, Chemistry, Mathematics, and Physics. These requirements may be satisfied by electing Biology 1, 2, or 3, 4; Chemistry 1, 2, or 3, 4; Mathematics 1, 3, 6, or 1, 2, 3, or 17, 18, 19, 20, or Course 1 in mathematics, and Courses 15, 16 in astronomy; Physics 1, 2, 3, 4, or 5, 6, 3, 4. In case the requirements listed do not equal ten hours the remaining hours may be selected from any course in mathematics or science.

4. SOCIAL SCIENCE GROUP.—This comprises the courses offered in the Departments of Economics and Sociology, Education, History and Government, Philosophy, and Psychology, and the courses in history, archeology, fine arts, and music offered in other departments and not included in Group 1.

5. MILITARY SCIENCE AND TACTICS (for men), two years' work giving seven semester hours' credit.

6. PHYSICAL TRAINING, two years' work without credit. Women students also take Biology 5 in the freshman year for which two credits are given. These courses may not be counted toward the science requirements. Students are expected to complete all the required work listed above by the end of their sophomore year.

Students are not allowed to take work in courses outside of the curriculum of the College of Arts and Sciences amounting to more than eight semester hours of the number required for graduation except upon the recommendation of the major instructor and the approval of the dean of this college.

MAJOR SUBJECT

Beginning with the sophomore year each student must select some one department in the college in which he is to pursue his major work. Any one of the following subjects may be chosen: Biology (including Zoology, Botany, Physiology, and Entomology), Chemistry, Economics and Sociology, Education, English, French, German, History and Government, Latin, Mathematics and Astronomy, Philosophy, Physics, Public Speaking, Psychology, Spanish and Italian.

The head of the department in which the student has chosen his major subject becomes his major instructor, who is also the representative of the student before the faculty.

The major subject must include courses counting not less than thirty nor more than fifty hours. In the case of departments in which less work is offered than amounts to thirty hours, this must be made up from such other departments as the major instructor may prescribe. Major students in certain departments may also be required to select a minor subject in which a minimum of eighteen semester hours' work is to be done. remainder of the courses are selected among the different departments of the University, subject to the approval of the major instructor. Students transferring from the Colleges of Technology and Agriculture to the College of Arts and Sciences will be required to do two full years' work in the College of Arts and Sciences before receiving the bachelor's degree, with the exception that students from the College of Technology may transfer after the junior year and be graduated in Arts after one year's work as major students in the Departments of Physics, Chemistry, or Mathematics; and students from the College of Agriculture may similarly transfer and be graduated as majors in the Department of Biology. No grades below C are accepted from other Colleges of Arts and Sciences.

Seniors shall be required to continue work in their major subject thru their senior year.

GENERAL LECTURE COURSE

A course of weekly lectures is given in the College of Arts and Sciences each semester. Attendance is open to all. Students expecting credit are required to pass in satisfactory notes on the lectures. One absence will be allowed without loss of credit. If a student is absent a second time, he may obtain credit by doing a certain amount of supplementary reading assigned him by the head of the department giving the lecture and making a satisfactory report on the same. A student absent more than twice will be reported as not passed. As a rank in the course the terms "passed" and "not passed" are employed. Work taken in this course does not count toward the major subject.

PROGRAM FOR SECONDARY SCHOOL TEACHERS LEADING TO A STATE CERTIFICATE

The College of Arts and Sciences has arranged a program for the professional training of secondary school teachers, which will entitle those who complete it to a professional state certificate for secondary school teachers. The program has been arranged in conference with the State Commissioner of Education and has his endorsement.

In addition to fulfilling the general requirements leading to the degree of Bachelor of Arts, the student is expected to complete six hours in Psychology 1, 2, twelve hours in Education in the junior and senior years, thirty approved hours in a major subject, and from fifteen to twenty approved hours in a minor field. The work in the minor field must have the approval of the heads of the departments in which this work falls as well as the head of the Department of Education before the student will be recommended for certification in this field.

The prescribed work in Education includes three hours in the History of Education, three hours in Methods of Teaching, two hours in Educational Measurements. and four hours to be elected. As much as three hours in special methods courses given by other departments may be counted as part of the twelve hours required in Education.

The selection of major and minor subjects is designed to equip the student for teaching two or more subjects which are commonly taught together in the high school. Usual combinations are mathematics and science, French and Latin, English and history, English and French, history and Latin, English and Latin, and French and history. For the completion of this program a high standard of scholarship is required. All the prescribed work, including major and minor subjects, must be of C grade or above. Upon completing this work the student will be recommended to the State Department of Education for a Professional Secondary Certificate, which will designate the major and minor subjects which he has pursued.

BACHELOR OF ARTS CURRICULA

The work in the College of Arts and Sciences leads to the degree of Bachelor of Arts (B.A.). The curricula demand 125 hours and are regularly completed in four years, but a student of exceptional preparation and application may complete the requirements in three years by attending one or more summer sessions. Students fitting themselves for professional or technical schools are often encouraged to do this, but prospective teachers are recommended to spend four years in college.

No outlines of the curricula in the College of Arts and Sciences are given in the catalog, but students may have an outline presented to them by applying to the professor in charge of the department in which they are interested. Groups of studies are made up which would be desirable for students intending to prepare for teaching, or to enter upon the study of law, medicine, or theology.

COMBINED ARTS AND MEDICAL CURRICULA

The marked increase in the number of pre-medical students in attendance at the University has led to the establishment of definite programs of work for such students. The three-year course has been arranged in connection with an agreement with certain medical schools, which provides that a stu-

dent who completes three years at this institution may enter the medical school, and receive his bachelor's degree here at the completion of his first year at the medical school. A four-year course is arranged to meet the need of students who wish a broader academic training before beginning their distinctly medical studies. Four years of academic work are strongly recommended to the prospective student. It is important that each pre-medical student consult with his major professor in regard to his curriculum in order to make sure that all of the requirements are met for the particular school which he intends to enter.

Three-Year Course

FIRST YEAR

Fall Semester

Subject	Hours
General Biology	. 4
or	
Animal Biology	. 4
General Chemistry	. 4
English	. 3
Modern Language	. 5
Military	. 11/2
Physical Training	

Spring Semester	
Subject	Hours
General Biology	. 4
or	
Animal Biology	. 4
General Chemistry	. 4
English	3
Modern Language	5
Military	172
Physical Training	

171/2

171/2

SECOND YEAR

Vertebrate Zoology	4
Qualitative Analysis	5
General Physics	3
Laboratory Physics	1
Modern Language	3
Military	2

Vertebrate Embryology	4
Elementary Quantitative	
Analysis	5
General Physics	3
Laboratory Physics	1
Modern Language	3
Military	2

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THIRD YEAR

Advanced General P	hysics 3
or	
Physiology	4
English	
Psychology	
Genetics	
Organic Chemistry.	

Advanced General Physics	3
or	
Physiology	4
English	3
Psychology	3
Scientific German	2
Organic Chemistry	5

17 or 18

17 or 18

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Four-Year Course

Students taking the four-year course, take first three years as above. They are advised to take Advanced General Physics rather than Physiology in their third year.

FOURTH YEAR

Fall Semester		Spring Semester	p
Subject	Hours	Subject	Hours
Histology or Physiology	4	Physiology	4
or		Advanced General Physics	s 3
Advanced General Physics	3	Social Pathology	3
Sociology	3	Elective	4 to 12
Elective4	to 12		

The following courses are advised for fourth year pre-medical students: Biology 16, 39, 40, 45; Chemistry 71, 72; Philosophy 3; Bacteriology 1, 3; Biochemistry 1, 2; Psychology 81, 82.

PRE-DENTAL CURRICULUM

The standard dental schools now require for admission one year of college work, including biology, chemistry, and English. The following

curriculum will enable pre-dental students to meet the new requirements:

General	Biology	4
General	Chemistry	4
English 1	• • • • • • • • • • • • • • • • • • • •	3
Modern	Language	5
Military	1	11/2
Physical	Training	

General Biology		4
General Chemistr	у	4
English 2		3
Modern Language	e	5
Military 2		11/2
Physical Training		

171/2

171/2

Students planning to enter a dental school should be careful to elect a year's work in physics during their high school course. In some schools a second year of chemistry is called for, therefore it is essential that the student consult his major instructor in order to be certain that his curriculum will meet all of the requirements of the school which he is going to attend.

BANGOR THEOLOGICAL SEMINARY

Students in the College of Arts and Sciences have the privilege of registering for courses in Bangor Theological Seminary not to exceed five credit hours per semester, without payment of tuition charges, and a like privilege is extended by the College to students in the Seminary. The courses for which students may register must be approved by the Dean of the College, the President of the Seminary, and the instructors in the subject concerned in both institutions. Such work may be counted toward graduation; but in order to avoid duplication of credits it is understood that all courses at the University of Maine which have been used by Seminary students for graduation credit at the Seminary, shall be cancelled at the University in case the student is admitted to junior standing as a candidate for the Bachelor of Arts degree.



Departments of Instruction

NOTE: A star (*) before the time designated for a course indicates that three hours of actual work are required to obtain credit for one hour; a dagger (†) indicates that two hours are required to obtain this credit.

Courses designated by an odd number are given in the fall semester; those designated by an even number, in the spring semester.

Courses numbered 1-50 are for undergraduates only; courses numbered 51-100 are for graduates and undergraduates; courses numbered above 100 are primarily for graduates.

When a course is offered in the first semester and also repeated in the second, it is designated by two numbers, the second of which is in parenthesis.

ART HISTORY

PROFESSOR HUDDILSTON

1, 2. MASTERPIECES OF ART.—A general course covering the most distinctive values of art in the great periods, with special regard to architecture as a key to the spirit of the ages. Lectures and interpretations from

photographs. Not open to students who have taken Course 3 or 4. Two hours a week.

3. ANCIENT ART.—A course on the understanding and enjoyment of architecture and sculpture as developed by the ancients, and as perfected by the Greeks. Fundamental for art appreciation. Given in alternate years. *Three hours a week*.

4. RENAISSANCE ART.—Mainly a study of the Italian masters of the fifteenth and sixteenth centuries. This course should be taken as a sequel to the preceding. Given in alternate years. *Three hours a week*.

5. ART IDEALS IN AMERICA.—A course of lectures on the relation of the fine arts to national culture and spirit. Designed to throw light on the history of the United States and to stimulate a broader interest in art appreciation particularly as affecting the public mind and reflecting national spirit. Open to all students except freshmen. Given in 1928-29. Three hours a week.

ASTRONOMY

PROFESSOR HART; ASSOCIATE PROFESSOR JORDAN

10. DESCRIPTIVE ASTRONOMY.—An elementary course. The text book is supplemented by informal lectures, illustrated by lantern slides, drawings of celestial objects, and work in the observatory. Open to all students. Three hours a week. MR. JORDAN

11. PRACTICAL ASTRONOMY.—A course arranged to meet the needs on engineering students, and consisting mainly of problems in the conversion of time, the determination of terrestial latitudes, and the establishment of meridian lines. Open to students who have taken Mathematics 1, 3, and Astronomy 10. Two hours a week with additional hours for observation. MR. JORDAN

15, 16. GENERAL ASTRONOMY.—Designed for students in mathematics and physics and others wishing a more complete treatment of the subject than Course 10. Recitations, lectures, solutions of problems, observations with instruments in the observatory. Open to sophomores, juniors, and seniors who have had Mathematics 1. Given in 1929-30 and alternate years. Three hours a week. MR. JORDAN

59, 60. PRACTICAL ASTRONOMY.—The theory and use of the astronomical transit, zenith telescope, and equatorial; accurate determination of time and latitude. Open to students who have taken Mathematics 6, 7, 8, and Astronomy 10 or 15. Given in 1930-31 and alternate years. Three hours a week. MR. JORDAN

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BIBLICAL LITERATURE

DEAN STEVENS

1, 2. THE ENGLISH BIBLE.—A study of the English Bible as a masterpiece of literature, with the main object of familiarizing the student with the content of the Bible itself, and with the use made of it by the great masters of English literature. Two hours a week.

BIBLIOGRAPHY

MR. IBBOTSON; MISS KANE

1, (2). Use of the LIBRARY.—A practical study of the use of a library: catalog, reference books. bibliographies, with special emphasis laid

upon major subjects or interests of individual students. Designed for students who intend to teach or pursue graduate study. Prerequisite, permission of Mr. Ibbotson. One hour a week.

BIOLOGY

PROFESSOR YOUNG, Chairman

Students majoring in Biology may concentrate in either Botany, Entomology, Physiology, or Zoology, and will in each case be under the direct guidance of the instructor in that particular field of work. A split minor in Physics and Chemistry may be required.

Division of Zoology

PROFESSOR YOUNG, (Head of the Division of Zoology); ASSISTANT PROFESSOR BEAN; ASSOCIATE PROFESSOR RICE

1. GENERAL ZOOLOGY.—An introductory course in the fundamentals of zoology illustrated by studies of typical forms from the various groups of the animal kingdom; application of biological principles to daily life. Required of all students in the College of Agriculture. Class room, two hours a week; laboratory, †four hours a week. MR. YOUNG and Assistants

3, 4. ANIMAL BIOLOGY.—In this course an attempt is made to give a

broad view of the principles of life as applied to the animal kingdom. Emphasis is placed upon the application of biology to human welfare. Class room, two hours a week; laboratory, †four hours a week.

MR. YOUNG and Assistants

5. ELEMENTARY PHYSIOLOGY AND HYGIENE.--Required of all first year women except those in the Department of Home Economics. The principles of anatomy, physiology, and hygiene applied especially to human well-being. This course does not count for major credit nor as a science requirement. Class room, two hours a week. MISS BEAN

12. HUMAN PHYSIOLOGY.-The anatomy, physiology, and hygiene of higher animals, especially related to man. Required of all students in the Department of Home Economics. Class room, two hours a week: laboracory, *four hours a week*. MISS BEAN

15. VERTEBRATE ZOOLOGY.-A study of the structure, origin, and history of the vertebrate organ systems. Prerequisites, Courses 1 and 2. Class room, two hours a week; laboratory, †four hours a week. MR. YOUNG

16. INVERTEBRATE ZOOLOGY .- A systematic study of the invertebrate animals. Prerequisites, Courses 1 and 2, or 3 and 4. Class room, two hours a MR. YOUNG week; laboratory, †four hours a week.

18. VERTEBRATE EMBRYOLOGY.-A study of the development, and formation of tissues, organs, and systems in vertebrates. Prerequisite, Course 15. Class room, two hours a week; laboratory, †four hours a week. MR. YOUNG

37, 38. GENERAL PHYSIOLOGY.—A study of the physico-chemical forces of the vital processes of plants and animals: the more special phenomena in higher animals with their bearing on human physiology. Prerequisites, two years of chemistry, Biology 1 and 2. A year of physics is recommended. Class room, two hours a week; laboratory, †four hours a week. MR. RICE

39, 40. MAMMALIAN PHYSIOLOGY.—A study of respiration, nutrition, circulation, excretion, and the propagation of the nerve impulse as coordinating mechanisms in the mammalian organization. Prerequisites, Biology 16 and a year of chemistry. Class room, two hours a week; laboratory, MR. RICE tfour hours a week.

41. HISTOLOGICAL TECHNIQUE.—A course in the methods of preparing microscopic slides of plant and animal material. Admission by arrangement with the instructor. Prerequisites, two years of biology. Class room, one hour a week; laboratory, *six hours a week. MR. YOUNG

44. BIOLOGICAL THEORIES.—A discussion of the more important generalizations of the biological sciences. Designed to portray the growth and development of biological knowledge as a phase of intellectual culture, and to indicate the value of such knowledge to human welfare. Prerequisite, one year of biology. Class room, two hours a week. MR. RICE

54. GENERAL CYTOLOGY.—Study of cell phenomena. Admission by written consent of the instructor. Prerequisites, Courses 1, 2, and 45. Class room, two hours a week; laboratory and demonstration, †two hours a week. MR. YOUNG

Division of Botany and Entomology

PROFESSOR STEINMETZ (Head of the Division of Botany); ASSISTANT PROFESSOR DIRKS; MR. HYLAND; MR. DEVIRMENJIAN (DERMEN)

2. GENERAL BOTANY.—The fundamental principles of plant life, with special emphasis on life processes. Required of all students in the College of Agriculture excepting those registered in home economics. Class room, two hours a week; laboratory, †four hours a week.

MR. STEINMETZ and Assistants

20. GENERAL ENTOMOLOGY.—A study of the structure, life histories, habits, and classification of insects, and the principles of control. Illustrated by the common insect pests of the field, garden, orchard, and domestic animals. Prerequisite, one year of biology. Class room, two hours a week; laboratory, †four hours a week. MR. DIRKS

22. FOREST ENTOMOLOGY.—The fundamental principles of insect life with special reference to forest insects; the structure, bionomics, classification, and principles of control. Prerequisite, one year of biology. Class room, two hours a week; laboratory, *four hours a week*. MR. DIRKS

31. PLANT PHYSIOLOGY.—Class room and laboratory work on the physiology of plants. Prerequisites, Course 2, and one year of chemistry. Class room, two hours a week; laboratory, *four hours a week*.

MR. STEINMETZ, MR. DIRKS

32. PLANT PHYSIOLOGY.—For students in forestry. Prerequisites, Course 2, and one year of chemistry. Class room, two hours a week; laboratory, *four hours a week*. Mr. Steinmetz and Assistants

33. FOREST BOTANY (DENDROLOGY).—Lectures, laboratory, and field work on the characteristics, habits, classification, and relationships of trees and native shrubs of North America. Prerequisite, Course 2. Class room, two hours a week; laboratory, †four hours a week. MR. HYLAND

34. FOREST BOTANY (PHYSIOGRAPHY).—A systematic study of the trees of North America; a comprehensive study of the range, distribution, soil requirements, and commercial importance of the timber trees of the United States; a survey of the forest areas of the world. Prerequisite, Course 33. Class room, two hours a week; laboratory, †four hours a week.

MR. HYLAND

35. PLANT ANATOMY.—The tissues of leaves, roots, and stems of herbaceous and woody plants. Prerequisite, Course 2. Class room, two hours a week; laboratory, †four hours a week. MR. DERMEN, MR. HYLAND

36. PLANT PATHOLOGY.—The principles of plant diseases; their nature and causes; basis for control. Prerequisite, Course 2. Class room, two hours a week; laboratory, †four hours a week. MR. STEINMETZ and Assistants

42. FOREST PATHOLOGY.—The principles of plant diseases, as applied to seedlings, nursery stock, and forest trees; destruction of timber by fungi; methods of combating plant diseases and preserving wood products. Required of seniors in forestry. Class room, two hours a week; laboratory, †four hours a week. MR. STEINMETZ, MR. HYLAND

43. WOOD IDENTIFICATION.—The identification of commercial woods with the unaided eye, lens, and microscope. Open to students in chemical

engineering, and to others by permission. Laboratory, *three hours a week. MR. HYLAND

45. GENERAL GENETICS.—The principles of genetics. Prerequisite, one year of biology. Open to juniors and seniors. Class room, two hours a week; laboratory, †two hours a week. MR. STEINMETZ

46. GENETICS LABORATORY.—Experiments and problems on the kinds, causes, measurements, and inheritance of variations in plants and animals. Prerequisite, Course 45. Laboratory, *four hours a week*. MR. STEINMETZ

48. APICULTURE.—A practical course in the care of bees in relation to general farming and horticulture. A study of the honeybee, its activities and habits; races of bees; diseases and enemies; production and marketing of honey. Laboratory exercises include manipulation of bees and the making of hive equipment. Class room, one hour a week; laboratory, *three hours a week. MR. DIRKS

49. ECONOMIC ENTOMOLOGY.—An intensive study of the specific insect pests of farm, garden, and orchard; principles of their control; consideration of insecticides and their uses. Prerequisite, Courses 20 or 22. Class room, two hours a week; laboratory, †four hours a week. MR. DIRKS

51. MORPHOLOGY OF INSECTS.—An introduction to the principles of insect morphology. The factors determining form and adaptations of typical insects. Prerequisite, Courses 20 or 22. Laboratory, *†eight hours a week*.

MR. DIRKS

52. TAXONOMY OF INSECTS.—The principles of insect classification; the origin, history, distribution, and relationship of the order; practice in the use of keys for the identification of insects. Prerequisite, Course 51. Lab-

oratory, †eight hours a week. MR. DIRKS

57. TAXONOMY OF PLANTS.—The characteristics, identification, classification, habits, and systematic position of representative species of flowering plants. Prerequisites, Biology 2, and the consent of the instructor. Class room, two hours a week; laboratory, and field, *four hours a week*.

MR. STEINMETZ

58. GENERAL CRYPTOGAMIC BOTANY.—The orders of spore bearing plants, their structure, development, and economic importance. Prerequisites, Biology 2 and the consent of the instructor. Class room, two hours a week; laboratory and field, *four hours a week*.

General Courses

47, 48. PROBLEMS IN BIOLOGY.—Open to juniors and seniors who may have special interest, and special qualification, in some phase of biology. The

approval of the Staff in Biology and the written consent of the instructor concerned, must be obtained before registering for this work. Credit to be arranged in each case. Not to count toward graduate credit. The STAFF

55, 56. BIOLOGICAL SEMINAR.—A consideration of the current and historical literature which expresses the trends of thought in this subject. Required of all senior majors and graduates majoring in Biology. Class room, one hour a week. THE STAFF

Opportunity is given for special and advanced work in the various phases of biology under the direction of the members of the department. Students with adequate preparation may register by special written permission for the following courses.

103, 104. PROBLEMS IN GENETICS.

105, 106. PROBLEMS IN ZOOLOGY.

107, 108. PROBLEMS IN ENTOMOLOGY.

109, 110. PROBLEMS IN BOTANY.

111, 112. PROBLEMS IN PHYSIOLOGY.

113. HISTORY OF BIOLOGY.—A chronological study of the development of biological knowledge. Designed to provide an adequate perspective. Class room, two hours a week. MR. RICE

CHEMISTRY

The courses in this department are described under the College of Technology.

The science requirement in the College of Arts and Sciences may be met by completing Courses 1, 2, (or 3, 4), 37, and 42.

Students taking chemistry as a major subject in the College of Arts and Sciences must complete satisfactorily Courses 1, 2, (or 3, 4), and not less than thirty hours in chemistry, including 31, 40, 51, 52, 71b, and 72b. Biology 1, 2 is required, also some mathematics and physics.

The following work in chemistry is now required for many medical colleges of the first class:

Three years' preparation in chemistry, including at least 240 hours of class room work and 500 hours of laboratory work. The former must include 60 hours in organic chemistry and a short course in physical chemistry, while the latter must include one year's work in analytical chemistry and 120 hours in organic chemistry.

Students are advised to study carefully the chemistry requirements of the medical college they desire to enter before the beginning of the freshman year, and in any case not later than the beginning of the sophomore year.

ECONOMICS AND SOCIOLOGY

PROFESSOR ASHWORTH; ASSISTANT PROFESSOR BUCHAN; ASSISTANT PROFESSOR CHADBOURNE; MR. GARLAND; MR. YOUNGS; MR. SCHMITTER

Economics 1a, 2a, 9, and 10 are open to all upper class students. Those making economics their major subject are required to take these courses in their sophomore year.

Students who have passed Economics 1b and 2b and who transfer to the Department of Economics and Sociology will lose their credit in these courses, unless permission to the contrary is granted by the head of the department.

All students in the department are required to take General Sociology 41, 42 in their junior year except those who make sociology their chief interest. The latter are expected to take these courses in their sophomore year.

Major students in the department who so desire may make sociology their main interest. However, such students are expected to take twelve hours in economics proper. Courses 1a and 2a are to be included in the twelve hours.

Major students in Economics are required to take a minor of eighteen hours. This should be selected primarily with reference to the possibility of teaching.

After graduation students from this department go, mainly, into the following fields: business, teaching, and law. Those who wish to study law will be directed to those courses which give the best preparation for the work. A student whose departmental requirements are completed may, at the end of his junior year, go to one of several law schools and receive his B.A. degree here on the successful completion of one year in the law school.

I. Economics

1a, 2a. PRINCIPLES OF ECONOMICS.—These are introductory courses dealing with the development, the principles, and problems of our economic life. It is the purpose in these courses to give those students, who may not pursue the study of economics further, a broad knowledge and understanding of the economic world of to-day and to others a foundation for their further study of economics and allied subjects. *Three hours a week*.

MR. ASHWORTH, MR. GARLAND

Ib, 2b.PRINCIPLES OF ECONOMICS.—Similar to courses la and 2a.These are short courses for the technical and agricultural students. Twohours a week.MR. GARLAND, MR. SCHMITTER

9, 10. ACCOUNTING.—These courses aim to give the student that general knowledge of the principles of accounting which every business person should possess. Since they do not presume any knowledge of double entry bookkeeping a considerable part of the first semester's work is devoted to fundamental principles. Balance sheets and income statements, depreciation. reserves, sinking funds, partnership, and corporation problems are the principal topics of the second semester. Three hours a week. MR. CHADBOURNE

11, 12. COST ACCOUNTING.—Open to those who have passed Courses 9 and 10 with a grade of C or better. Two hours a week. MR. YOUNGS

16. BUSINESS LAW .- The legal principles of modern business: contracts, agencies, partnerships, corporations, negotiable instruments, mortgages, guaranty, and suretyship. For technical and agricultural students. Three hours a week. MR. GARLAND

51. CORPORATION FINANCE.—The promotion, financing, incorporation, and capitalization of industrial corporations in the United States; the relations of stockholders and directors; stock speculation; receiverships and reorganizations. Juniors and seniors only. Three hours a week. MR. GARLAND

MARKETING.—The marketing functions; the marketing of farm 52. products, raw materials, manufactured products; wholesaling and retailing; market risk, competition, price; a critical study of market organizations. Juniors and seniors only. Three hours a week. MR. GARLAND

53. MONEY AND BANKING.—The monetary and banking systems of the United States and other countries; special emphasis on the relation of banking to business. Juniors and seniors only. Three hours a week.

MR. CHADBOURNE

54. ADVANCED BANKING .- Credit analysis, foreign exchange, investments, and investment banking. Three hours a week. MR. CHADBOURNE

55, 56. BUSINESS LAW.-The legal principles of modern business: contracts, agencies, partnerships, corporations, negotiable instruments, mortgages, guaranty, and suretyship. Seniors only. Three hours a week.

MR. CHADBOURNE

71. PUBLIC FINANCE.-Government activities and expenditures; tax systems and reform measures; budget systems and current tax problems. Juniors and seniors only. Three hours a week. MR. ASHWORTH

72. LABOR PROBLEMS.—The industrial revolution and the development of the modern conflict between labor and capital; history, aims, policies, and methods of trade unions; agencies of industrial peace; child labor, hours of labor, wages, and industrial insurance. Juniors and seniors only. Three hours a week. MR. ASHWORTH

75. TRANSPORTATION.—The historical development of transportation in the United States; railway organization and combination; financing and rate making; federal and state regulation; government ownership and operation; railway policies of European countries. Seniors only. Three hours a week. MR. GARLAND

101,	102.	SEMINAR.—Public Finance.
103,	104.	SEMINAR.—Public Utilities.
105,	106.	SEMINAR.—Banking.

Mr. Ashworth Mr. Garland Mr. Chadbourne

II. Sociology

41, 42. GENERAL SOCIOLOGY.—An introductory course analyzing such processes of group life as communication, social contact, social isolation, conflict, crowd formation, with the purpose of formulating principles of social behavior. Suggestions for the interpretation of the natural history of institutions such as family and law, and of concrete problems such as crime, immigration, growth of cities, and war, as embodying the principles formulated. Open to sophomores. Three hours a week. MISS BUCHAN

44. RURAL SOCIOLOGY.—Application of the laws of social behavior to rural problems, such as isolation, movement of people to the city, tenancy, cooperation, roads and transportation, with particular reference to Maine. Open to students of the College of Agriculture without the usual prerequisite. Two hours a week. MISS BUCHAN

61. SOCIAL PATHOLOGY: DEPENDENCY AND DEFECT.—A study of the

poor. vagrants, and physical and mental defectives in their relations with other members of society. The history of the development of methods of controlling them. Prerequisites, Courses 41, 42. Three hours a week.

MISS BUCHAN

62. SOCIAL PATHOLOGY: CRIME.—A consideration of juvenile and adult delinquents as deviates from the mores. The relation of physical and mental defect, disease, and other inadequacy to contacts with society in the development of non-conforming personality patterns. Methods of social control. Field trips for scientific observation of these phenomena. Prerequisites, Courses 41, 42. Three hours a week. MISS BUCHAN

81, 82. THE FAMILY.—Analysis of the natural history and the fundamental mechanisms of the family as a group of interacting personalities; consideration of its institutional nature and its pathological aspects. Prerequisites, Courses 41, 42. Six hours of biology recommended. Two hours a week. MISS BUCHAN 87. IMMIGRATION.—An investigation of immigrant heritages, ideals, and attitudes, as shown in the immigration of the United States; agencies and methods of assimilating the immigrant. Prerequisites, Courses 41, 42, or permission of the instructor. Three hours a week. MISS BUCHAN

88. SOCIAL CONTROL.—A study of the social mechanisms involved in the control of people and groups, by facial and vocal gestures, force, custom, legal compulsion, political discussion, public opinion, and war; certain conscious programs for control in the form of socialism, communism, government ownership, single tax, etc. Seniors only. *Three hours a week*.

MISS BUCHAN

107, 108. Sociology Seminar.—Special work for those fitted for it. Miss Buchan

EDUCATION

PROFESSOR LUTES; ASSOCIATE PROFESSOR CHADBOURNE; MISS HART

In addition to the courses listed below, students who are preparing to teach will find highly valuable the courses in Educational Psychology, Abnormal Psychology, and Mental Hygiene listed under the Department of Psychology. Psychology 1 and 2 are required for students who wish to qualify for the Professional Secondary Certificate in the State of Maine.

29, 30. PRACTICE TEACHING.—A course in practice teaching in academic subjects. Open to a limited number of seniors on recommendation of

major instructors and by permission of the head of the Department of Education. *Five hours a week for a six weeks' period*.

47, (48). METHODS OF TEACHING IN SECONDARY SCHOOLS.—A general methods course for prospective high-school teachers, dealing with problems of classroom teaching. This course is prescribed for those desiring a professional state certificate. Students electing Education 47 or 48 should arrange their morning programs so they will be able to make at least ten visits to high schools in neighboring towns. For seniors. Open by permission. *Three hours a week*. Miss HART

51. HISTORY OF EDUCATION IN THE UNITED STATES.—Evolution of education, educational institutions, school systems and practices of the American people. Open to juniors. *Three hours a week*. MISS CHADBOURNE

52. HISTORY OF EDUCATION IN MAINE.—A study of the evolution of the educational system in the state from its earliest period to the present time. Open to juniors and seniors. *Three hours a week*. MISS CHADBOURNE

53. FOUNDATIONS OF MODERN EDUCATION.—Historical analysis and interpretation of the more important elements in modern education derived from the Hebrews, Greeks, Romans, Middle Ages, and Renaissance. Open to juniors. Three hours a week. Miss CHADBOURNE

54. HISTORY OF MODERN EDUCATION.—Evolution of present day educational theory; institutions and practices of modern civilizations from the time of the Reformation up to the present. Open to juniors. Three hours a week. MISS CHADBOURNE

55, 56. EDUCATIONAL SOCIOLOGY.—A study of the school as a social institution. Problems centering around the curriculum, individual differences, educational and vocational guidance, educational control and support, and educational objectives will be treated. Non-school educational agencies also will be discussed. Open to sophomores. *Two hours a week*. MISS HART

59, 60. PRINCIPLES OF SECONDARY EDUCATION.—A course in the application of the principles of education with special reference to the problem of high school teaching. The aims of secondary education in a democracy in terms of skills, knowledges, tastes, and ideals which are demanded in modern life. Primarily for juniors and seniors. Open to sophomores by permission. Three hours a week. MISS CHADBOURNE

61. SCHOOL ADMINISTRATION.—The general problems of school organization and administration in the United States. Primarily for seniors. Open by permission. Three hours a week. MR. LUTES

62. SECONDARY SCHOOL ADMINISTRATION AND SUPERVISION.—A practical course for those who are looking forward to positions as high school principals or supervisors. Problems of organization, teacher selection and rating, improvement of teachers in service, salary schedules, extra-curricular activities, testing programs, and techniques of supervision will be emphasized. Primarily for seniors. Open by permission. Three hours a week. MR. LUTES

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65, (66). EDUCATIONAL MEASUREMENT.—The fundamentals of modern methods of measurement, statistical methods, and standard tests, which every teacher needs to know. Open to juniors and seniors. Beginning with the graduating class of 1930, this course will be required for the Professional State Certificate. Two hours a week. MR. LUTES

71. PSYCHOLOGY OF SECONDARY EDUCATION.—A study of the adolescent age and its characteristics. Psychological principles which determine the scope and character of secondary education. Open to students who have passed Psychology 1, 2 with a grade of C; to others by permission. Three hours a week. MR. DICKINSON, MR. LUTES

95, 96. PHILOSOPHY OF EDUCATION.—A course for seniors and graduate students designed primarily for the reading and discussion of conflicting factors in education with a view to their criticism and coordination. Two hours a week. MISS CHADBOURNE

97, 98. CURRENT PROBLEMS IN EDUCATION.—Each student is assigned special problems in the field of education. One semester is required of majors in education. Open by permission to others. Seniors only. Two hours a week. MR. LUTES

ENGLISH

PROFESSOR ELLIS; PROFESSOR DRAPER; ASSOCIATE PROFESSOR TURNER; *Assistant Professor Richards; Assistant Professor Mill; †Assistant Professor Scamman; Mr. Fassett; Miss Green; Miss McCreary; Mr. Whitney; Mr. Kelley; Miss Brickett; Mrs. Pedder; Miss Aiken

Eh 1, Freshman Composition, is required of all freshmen, unless excused, in the fall semester; and Eh 1a, Eh 2, or Eh 18 in the spring semester. A grammar review course, Eh 0, is provided for those who. in the Freshman Week English tests, show themselves unqualified for taking Eh 1. Students showing special proficiency in the Freshman Week tests may be admitted to Eh 3, 4 or a course in advanced composition, and excused from taking Eh 1, 2.

Eh 3, 4, the foundation course in English literature, is recommended for all sophomores in Arts and Sciences and is required of sophomores in Home Economics.

Eh 5, (6), Technical Composition, is required of Technology students in the senior or junior year. Forestry sophomores, and juniors in the Agriculture curricula.

Eh 9, (10), Modern Literature, is required of juniors in Technology unless Public Speaking 3, 4 is elected instead, and is required of Forestry sophomores and of juniors in the Biology curriculum.

English major students are required to elect thirty hours in English beyond the freshman year, including Eh 3, 4 and 67, a year's work in advanced composition, and the equivalent of one full course in each of the following groups: (1) Eh 57, 58 or 61, 62; (2) 43, 44; 55, 56; 59, 60; or 81, 82; (3) Eh 51, 52; 53, 54; 63, 64; 65, 66; or 71, 72. Substitutions for stu-

*On leave of absence, spring semester, 1929. †Granted leave of absence for 1929-30.

dents desiring to specialize in public speaking, dramatics, or creative writing must have the approval of the major instructor. Extra-departmental requisites are History 17, 18 and an elementary knowledge of German. A major examination covering the student's courses in English is held in the spring semester of the senior year.

A minor of eighteen hours is also selected in some department related to English. This is most frequently History, Latin, French, or German.

An approved English minor, for major students in other departments, is Eh 3, 4; 7, 8 (or 19, 20); 57, 58; and 21 (22) when given. No student will be approved by the department to teach English in secondary schools who has not satisfactorily completed the equivalent of these courses.

1. FRESHMAN COMPOSITION.—An intensive course in expository writing, differentiated in method to suit the needs of the several collegiate groups. The fundamental principles of good usage in writing. Frequent themes and conferences. Required of all freshmen not excused by the department. *Three hours a week*.

> MR. TURNER (Chairman), MR. RICHARDS, MISS MILL, MR. FASSETT, MISS GREEN, MISS MCCREARY, MR. WHITNEY, MR. KELLEY, MISS BRICKETT

0. GRAMMAR REVIEW.—A drill course in the fundamentals of grammar, sentence structure, punctuation, and good usage in the choice of words, with practice in writing, required of freshmen whose preparation in English is found to be defective. *Two hours a week*, first nine weeks and second nine weeks of the fall semester. No credit. MRS. PEDDER, MISS BRICKETT

1a. FRESHMAN COMPOSITION.—A continuation course, required of freshmen who have failed to pass Course 1 with a satisfactory grade. Three hours a week, spring semester. To be given in 1930.

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MR. TURNER (Chairman) and Department

2. DESCRIPTIVE AND NARRATIVE COMPOSITION.—Practice in writing and study of descriptive and short-story literature. Elective for freshmen who have passed Course 1 with a grade of C or better. Three hours a week. MR. TURNER (Chairman) and Department

3, 4. HISTORY OF ENGLISH LITERATURE.—A survey of English literature to the nineteenth century. Prerequisite for all advanced courses in English literature. *Three hours a week*.

MR. RICHARDS (Chairman), MR. ELLIS, MR. DRAPER, MR. TURNER, MISS MILL

5, (6). TECHNICAL COMPOSITION.—Business correspondence, reports, and summaries of investigation, and preparation of manuscript for theses and technical journals. Required of students in the Colleges of Agriculture and Technology as above indicated. Not open to students in Arts and Sciences. Two hours a week, fall or spring semester.

MR. SCAMMAN (Chairman), MR. FASSETT, MR. KELLEY 7, 8. SECOND-YEAR COMPOSITION.—A course in exposition and narration, for students who have passed Courses 1, 2 and desire further work in general composition. Two hours a week.

MR. ELLIS, MISS GREEN, MR. WHITNEY

9, (10). MODERN LITERATURE.—A study of representative short stories, novels, essays, poetry, and plays, with the design of cultivating the appreciation and enjoyment of good literature. Since the subject matter of the course is changed each time it is offered, it may be repeated several times for credit. Not open to students in Arts and Sciences or in Home Economics. Two hours a week, fall or spring semester. MR. SCAMMAN, MR. FASSETT

15, (16). BUSINESS CORRESPONDENCE.—A course primarily for major students in Economics. The main object of the course is to acquaint students with the use of correct and forceful English for business purposes. Two hours a week, fall or spring semester. Mr. Scamman

18. LITERATURE FOR FRESHMEN.—Elective for freshmen who have passed Course 1 with a grade of C or better. After 1929 the course will be a survey of Nineteenth Century English literature. Three hours a week. MR. ELLIS

19, 20. PROSE STYLE.—A study of the technique of prose style, with analysis of passages from selected writers and exercises in imitation of their style and illustrative of various brief forms of prose. For students who have passed Courses 1, 2 with satisfactory grades and are especially interested in more advanced writing or in prose literature. Two hours a week.

MR. DRAPER

21, (22). TEACHING OF ENGLISH IN THE HIGH SCHOOL.—Discussion of topics and practice teaching in high-school literature and composition, oral and written. Practice in composition and theme correcting. Planning a well-ordered sequence of high-school classics. Two hours a week.

23, 24. NEWS WRITING .- Training in the fundamentals of newspaper work thru theory and practice. Regular correspondence for an assigned newspaper required. Two hours a week. MR. FASSETT

25, 26. HISTORY OF THE AMERICAN NEWSPAPER.-Origin and development of journalism in the United States. Notable personalities in American journalism and the expansion and influence of the press. Two hours a week. MR. FASSETT

27. MECHANICS OF EDITING.—Copy reading, headline writing, and page make-up, with a study of news values. Textbook and lectures. Two hours a week. MR. FASSETT

28. THE NEWSPAPER AND THE STATE.—Seminar, the purpose of which is to consider the political and social implications of the newspaper. Texts, lectures, discussion, readings, assigned papers. Prerequisite, Courses 25 and 26. Two hours a week. MR. FASSETT

31, 32. THE EIGHTEENTH AND NINETEENTH CENTURY ESSAY.—Addison, Steele, Swift, Johnson, Goldsmith, and Burke; Lamb, De Quincey, Macaulay, Carlyle, Ruskin, Arnold, and Stevenson. Two hours a week.

MISS GREEN

35, 36. CONTEMPORARY POETRY.—A study of present-day tendencies of poetry in America and England and its relation to earlier periods, with special attention to the more prominent living poets. Two hours a week. Not given in 1928-29. MR. ELLIS

43, 44. AMERICAN LITERATURE.—A survey course, based upon the study of the chief works of American poets and prose writers. Lectures, recitations, assigned reading, and written reports. Three hours a week.

MISS MCCREARY

49, 50. CONTEMPORARY DRAMA.—A study of representative plays of the last thirty years, with discussion of the chief tendencies of the drama during the period. *Two hours a week*. Given in the spring semester, 1929. MR. DRAPER

For the courses which follow, Eh 3, 4, History of English Literature, is prerequisite.

51. ANGLO-SAXON.—A study of Anglo-Saxon grammar and reading of easy prose and poetry. Lectures on the literature of the Anglo-Saxon period. This course is recommended for those intending to teach English or to proceed to graduate study in the subject. Three hours a week. MISS MILL

52. BEOWULF.—This course supplements Course 51 with a study of the earliest English epic. Attention is given to metrical, literary, and linguistic qualities and to the historical background. Three hours a week. Miss Mill

53, 54. CHAUCER.—A study of the Canterbury Tales and the chief minor poems, stressing the reading of Chaucer as poetry, his literary range and qualities, and the picture of his time given in his works. Three hours a week. Miss Mill 55, 56. NINETEENTH CENTURY POETRY.—In the first half the poetry of the English Romantic Movement is chiefly considered; in the second, the poetry of the Victorian Age and the later period. *Three hours a week*. Omitted in spring semester, 1929. MR. TURNER

57, 58. SHARESPEARE.—A brief consideration of the English drama prior to Shakespeare, followed by a careful study of several of his most important plays and the reading of others. Some attention is given to Elizabethan stage conditions and the dramatic work of his contemporaries. *Three hours a week*. MR. DRAPER, MR. ELLIS

59. ENGLISH LITERATURE FROM 1790 TO 1830.—A study of the literature of the romantic and revolutionary movements, the early realistic reaction, the rise of periodical literature, and the social and political influences which affected the writers of the first quarter of the nineteenth century. Three hours a week. Not offered in 1928-29. MR. TURNER

60. ENGLISH LITERATURE FROM 1830 TO 1870.—The literary and scientific movement of the era, the Victorian novelists, tractarianism, pre-Raphaelitism, the greater poets, imperialism, and the later realists and romancers. Three hours a week. Not offered in 1928-29. MR. TURNER

61, 62. HISTORY OF THE ENGLISH DRAMA.—The development of the drama in England from the miracle and mystery plays thru the Elizabethan period, and the later tendencies in the Restoration drama, the eighteenth century, the nineteenth century closet drama, and the revival of the acting play in England, Ireland, and America. *Three hours a week*. Given in fall semester, 1928-29. MR. RICHARDS

63. SIXTEENTH CENTURY LITERATURE.—Non-dramatic poetry and prose

of the period, with particular attention to the poetry of Spenser. Three hours a week. Given in the spring semester, 1929, as an Honors Course. MR. DRAPER

64. SEVENTEENTH CENTURY LITERATURE.—The non-dramatic poetry and prose of the century, with particular attention to Milton. Three hours a week. Not given in 1928-29. MR. DRAPER

65, 66. EIGHTEENTH CENTURY LITERATURE.—A study of the evolution of Neo-classicism as it merges into the early Romantic Movement, with special attention to the poetry of the period and supplementary lectures on the evolution toward romanticism of fiction and drama, and analogous developments in music, painting, architecture, and gardening. *Three hours a week*.

67. OUTLINE HISTORY OF THE ENGLISH LANGUAGE.—The descent and relationships of the English language; the successive periods of foreign influence; the sources and character of the English dialects. Recommended

for prospective teachers of English. Two hours a week. Miss MILL

71 (72). ADVANCED AMERICAN LITERATURE.—A study of some special field or period of American literature. For the fall semester, 1928-29, the topic is American Literature, 1783-1812. Three hours a week. MR. ELLIS

77, 78. CREATIVE WRITING.—An advanced course for students who have shown exceptional interest and ability in some special field of writing. The type used will vary in successive years. For courses in the short story and the essay, English 19, 20 is a prerequisite. *Two hours a week*.

77a, 78a. THE SHORT STORY.—Given in 1928-29. MR. WHITNEY
77b, 78b. THE FAMILIAR ESSAY. MR. RICHARDS
77c, 78c. VERSE WRITING. MR. ELLIS
77d, 78d. PLAY WRITING. MR. DRAPER

81, 82. THE ENGLISH NOVEL.—Beginning with a few lectures on English fiction before Richardson, this course traces in the first semester the history of the English novel in the eighteenth century and the early nineteenth century till the death of Scott. The second semester treats the Victorian novel, thru Hardy and Stevenson. Three hours a week. MR. TURNER

87, 88. MIDDLE ENGLISH.—A study of English Literature from 1200 to 1500, exclusive of Chaucer. Prerequisite, Anglo-Saxon or Chaucer. Three hours a week. Not given in 1929-30. MISS MILL

101, 102. GRADUATE SEMINAR.—The subject is determined by the needs of the students in attendance.

FRENCH

PROFESSOR KUENY; ASSOCIATE PROFESSOR PARKER; ASSISTANT PROFESSOR BUZZELL; MRS. WOODBURY

French major students are required to elect thirty hours in French beyond Advanced French (Courses 5 and 6). In order to secure the department's approval for the teaching of French in secondary schools they must have satisfactorily completed Courses 7, 8, 9, 10; 57, 58 (59, 60), and 62.

Students electing French as a minor with a view to teaching it in secondary schools will be approved only if they have satisfactorily completed eighteen hours beyond Advanced French (Courses 5 and 6), and these eighteen hours must include Courses 7, 8, 9, 10, and 62.

3, 4. INTERMEDIATE FRENCH.—A review of the elements of grammar, pronunciation and composition, combined with the reading of easy texts. Open to students who have offered two units of French as entrance requirements. Three hours a week. MRS. WOODBURY

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5, 6. ADVANCED FRENCH.—Rapid reading of modern prose and poetry. Open to students who have offered three units of French as entrance requirements, and other students with the same preparation. *Three hours a week*.

MR. KUENY, MR. PARKER, MISS BUZZELL, MRS. WOODBURY

7, 8. ELEMENTARY CONVERSATION AND COMPOSITION.—Open to students who have offered two units of French as entrance requirements. Two hours a week. MR. KUENY, MISS BUZZELL, MRS. WOODBURY

9, 10. ADVANCED CONVERSATION AND COMPOSITION.—Open to students who have completed Courses 7 and 8, or an equivalent. *Two hours a week*.

MR. KUENY, MISS BUZZELL

53. THE NOVEL IN THE NINETEENTH CENTURY, 1800-1850.—Lectures on the fiction of the Romantic school, with especial emphasis on the historical novel, and on the work of Balzac. Students are required to prepare oral and written reports on assigned reading. Open to students who have passed Course 6. Two hours a week. MR. PARKER

54. THE NOVEL IN THE NINETEENTH CENTURY, 1850-1900.—The fiction of the principal realistic and naturalistic writers will be studied, with some attention to the novels of Loti, Anatole France, and Bourget. Conducted in the same way as Course 53. Open to students who have passed Course 6. *Two hours a week*. Courses 53 and 54 together are intended to prepare students for the intelligent reading of modern French novels. MR. PARKER

55. THE DRAMA IN THE NINETEENTH CENTURY, 1800-1850.—The important plays of Hugo, Dumas pere, Vigny, Musset, and Scribe will be either studied in class or assigned for outside reading. Lectures, recitations, themes. Open to students who have passed Course 6. Two hours a

week. MR. PARKER

56. THE DRAMA IN THE NINETEENTH CENTURY, 1850-1900.—A survey of the principal dramatic productions of the second half of the century. Lectures, recitations, oral and written reports. Open to students who have passed Course 6. Two hours a week. MR. PARKER

57, 58. ADVANCED FRENCH GRAMMAR.—Lectures, recitations, practical exercises. The student is trained in making his own grammar thru the study of representative works. Open to students who have passed Courses 9 and 10, or an equivalent. Given in 1928-29 and alternate years. Three hours a week. MR. KUENY

59, 60. How to WRITE FRENCH.—An advanced course in composition. Open to students who have completed Courses 9 and 10, or an equivalent. Those registered for the course are required to take at the same time a course in French literature. Given in 1929-30 and alternate years. Three hours a WR. KUENY

62. THE ROMANTIC POETS.—A survey of the period of French romantic poetry with especial emphasis on Lamartine, Vigny, Hugo, and Musset. Open to upper-class students. Given in 1928-29 and alternate years. Two hours a week.

63 (Formerly 105). THE SEVENTEENTH CENTURY. 1600-1660.—A study, thru lectures and assigned reading, of the formation of classicism. Careful reading of the chief plays of Corneille. Open to students who have passed Course 6, Two hours a week. MR. PARKER

64 (Formerly 106). THE SEVENTEENTH CENTURY. 1660-1700.—The age of classicism. Especial attention will be paid to the plays of Moliere and Racine. Open to students who have passed Course 63. Two hours a week. Courses 63 and 64 should give students a first hand acquaintance with the masterpieces of French literature in the seventeenth century and an appreciation of French culture in the age of Louis XIV. MR. PARKER

73 (Formerly 109). THE EIGHTEENTH CENTURY. 1700-1750.—A survey of the literature and ideas of the first half of the century, with especial study of the work of Voltaire. Lectures, recitations, oral and written reports. Open to students who have taken two courses in French literature. After 1929-30, this course will be open only to students who have taken Courses 63 and 64 (formerly 105, 106). Two hours a week. MR. PARKER

74 (Formerly 110). THE EIGHTEENTH CENTURY. 1750-1800.—A survey of the literature that anticipated the French Revolution, with emphasis on the work and influence of Rousseau, Diderot, and Beaumarchais. Open to students who have taken Course 73. Two hours a week. MR. PARKER

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101, 102. THE MIDDLE AGES.—The historic development of the French language and literature from the origins to the Renaissance. A careful study of the text of the Chanson de Roland and of the chroniclers, with the reading of other texts. Open to students who have completed two courses in French literature. Given in 1929-30 and alternate years. Two hours a week. MR. KUENY

103. THE SIXTEENTH CENTURY.—A survey course combined with a somewhat intensive study of selections from Marot, Rabelais, Ronsard, and Montaigne. Open to students who have taken two courses in French literature. Given in 1928-29 and alternate years. *Two hours a week*. MR. KUENY

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GENERAL COURSES

Gc 1, 2. GENERAL LECTURES.—The College of Arts and Sciences has arranged a series of weekly lectures of a popular nature, along the lines of work connected with the departments in that college.

Courses of lectures have been scheduled as follows:

1928-29 German and Romance Languages; Biology.

1929-30 History and Economics; Physics and Mathematics.

1930-31 Greek and Latin; Chemistry.

1931-32 English; Education, Psychology, and Philosophy.

These courses will be repeated in the same order.

Registration for this course is open to all students in the University and proper credit is given for its completion. The lectures are open to the public and are without charge. For additional details see page 120.

Oc 2, 1. OUTLINE OF CIVILIZATION.—This is a course for selected juniors in the College of Technology. It begins in the spring semester and comprises topics in anthropology, history, religion, art, and literature; and in the following fall semester it continues literature and includes philology, science, and philosophy. *Two hours a week*, spring and fall semesters.

GEOLOGY

The courses in this department are described under the College of Agriculture.

GERMAN

PROFESSOR DRUMMOND; ASSISTANT PROFESSOR FRENCH; MISS COHEN

1, 2. FIRST YEAR GERMAN.—A course for beginners. Grammar, composition, translation, conversation. *Five hours a week*.

MR. DRUMMOND, MR. FRENCH, MISS COHEN

3, 4. SECOND YEAR GERMAN.—For students who have had Courses 1, 2 or equivalent. Translation, composition, grammar review. Three hours a week. MR. DRUMMOND

5, 6. THIRD YEAR GERMAN.—For students who have had Courses 3, 4 or equivalent. A course in German literature including the reading of texts of the eighteenth and nineteenth centuries and lectures. Three hours a week. MR. DRUMMOND

7, 8. FOURTH YEAR GERMAN.—For students who have had Courses 5, 6 or equivalent. Critical reading of standard works, principally from the nineteenth century literature; lectures; essays. Three hours a week.

MR. DRUMMOND

9. TEACHERS' COURSE.—For those who intend to teach German. Discussion of methods of teaching, the value of different texts, preparation of the lesson, class-room work, pronunciation, word-derivation, historical grammar. Two hours a week. MR. FRENCH

13, 14. ELEMENTARY GERMAN COMPOSITION AND CONVERSATION.— For students who have had Courses 1, 2 or equivalent. Two hours a week. Mr. French

15, 16. SCIENTIFIC GERMAN.—Open only to students whose previous study of German will enable them to read scientific German with profit. *Two hours a week.* MR. DRUMMOND, MR. FRENCH

17, 18. ADVANCED GERMAN CONVERSATION AND COMPOSITION.—For students who have had Courses 13, 14. Two hours a week.

MR. DRUMMOND, MR. FRENCH

The following courses are given when there is sufficient demand.

51, 52. STUDIES IN EIGHTEENTH CENTURY LITERATURE.—Special attention is given to the life and works of Klopstock, Lessing, Wieland, Goethe, Schiller. Critical study of different works, lectures, discussions. Two hours a week. MR. DRUMMOND

53, 54. GOETHE.—Lectures on the life and work of Goethe, with a critical study of Faust. Two hours a week. MR. DRUMMOND

55, 56. STUDIES IN NINETEENTH CENTURY LITERATURE.-The vari-

ous literary movements of the nineteenth century, lectures, discussions, outside reading. Two hours a week. MR. FRENCH

57, 58. SEMINAR.—A study of some special topic in German literature. Two hours a week. MR. DRUMMOND, MR. FRENCH

60. HISTORY OF GERMAN LITERATURE.—An outline sketch of the history of German literature in German. Recitations, outside reading, lectures. Three hours a week. MR. FRENCH

62, 63. EARLY NEW HIGH GERMAN.—A study of the most important literary movements from the early religious drama to Opitz and his contemporaries; lectures, discussions, outside readings. Two hours a week. MR. FRENCH

101, 102. GOTHIC: INTRODUCTION TO THE STUDY OF GERMANIC PHIL-OLOGY.—Historical grammar, word-derivation, translation. Two hours a week. Mr. Drummond 103, 104. OLD HIGH GERMAN.—A study of the grammar and translation from the different dialects of this period; word development in relation to present-day language; discussion of sound changes. Two hours a week. MR. DRUMMOND

105, 106. MIDDLE HIGH GERMAN.—A study of the grammar and its relation to modern German grammar; reading of such texts as Nibelungenlied, Walther von der Vogelweide, Hartmann von Aue; lectures on the literature of this period. *Two hours a week*. MR. DRUMMON'J

All students with a major in German are expected to be present at the meetings of the Journal Club, which are held monthly for the discussion of current magazine articles relating to Germanics. Other advanced students may be admitted to the meetings.

GREEK LANGUAGE AND LITERATURE

PROFESSOR HUDDILSTON

The Department of Greek is arranged with the idea of presenting several phases of ancient culture. Such courses are offered as will prove serviceable to the student of average interests, who not having studied the ancient languages in the fitting school, may desire to include in his college course some work bearing on the permanent contributions of early peoples to the civilization of ancient and modern times.

1, 2. ANCIENT CIVILIZATION.—This course has to do with the achieve-

ments of the Greeks and Romans in laying the foundations of much that is the basis of Western life and thought. Some examination is made of Egyptian and Eastern civilization as the background of classical life and action. An important part of the course lies in the emphasis that is given to the Greek thought and Roman rule in the midst of which Christianity sprang up. Instruction is by lectures and each student is required to keep a notebook. *Three hours a week*.

3. GREEK LIFE AND CULTURE.—A brief examination of some of the important features of the Greek legacy in art, literature, religion, and life. *Two hours a week*.

4. EARLY RELIGIONS.—A study of the religious conceptions of the ancient Egyptians, Babylonians, Persians, and Greeks; largely in relation to art and literature; and with chief emphasis on the Greek; lectures and assigned reading; investigation of special topics by members of the class. Two hours a week.

5. BEGINNING GREEK.—Grammar and elementary work, followed in the second part of the semester by reading in the New Testament Greek Four hours a week.

6. CONTINUATION OF COURSE 5.—Homer; selections from the Iliad. Four hours a week.

51. GREEK LITERATURE.—A general survey which does not presuppose any knowledge of the Greek language. While the course includes prose literature as well as poetry, the main attention is given to Homer and writers of the drama; considerable reading is done in English translation and some time is given to the influence of the Greek masterpieces upon Latin and later European literatures. Not given in 1929-1930. Three hours a week.

HISTORY AND GOVERNMENT

PROFESSOR COLVIN; ASSOCIATE PROFESSOR WHITMORE; ASSOCIATE PROFESSOR MITCHELL; ASSISTANT PROFESSOR WOOD; MR. FERGUSON

History

1, 2. UNITED STATES HISTORY AND GOVERNMENT.—This course begins with the close of the Revolution. It is open to freshmen only. Three hours a week. MR. WHITMORE, MR. FERGUSON

9. HISTORY OF THE UNITED STATES.—The period from 1783 to 1865. This course is for upper class students who have not had Courses 1 and 2. Two hours a week. MR. WHITMORE

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10. HISTORY OF THE UNITED STATES.—A continuation of Course 9, from 1865 to the present time. Two hours a week. MR. WHITMORE

11. MEDIEVAL HISTORY.—A general survey course covering the period from the third century to 1500. Not open to freshmen. Primarily for sophomores. Three hours a week. Miss Colvin

12. MODERN HISTORY.—Continuation of Course 11 to 1789. Three hours a week. Miss Colvin

17. HISTORY OF ENGLAND.—From early times to the beginning of the Stuart period. Not open to freshmen. Three hours a week.

MR. WOOD

18. HISTORY OF ENGLAND.—Continuation of Course 17. From the beginning of the Stuart period to the present. Not open to freshmen. Three hours a week. MR. Wood 21. RECENT HISTORY.—This course is a general view of world history from 1870. It is open to students from the Colleges of Technology and Agriculture only. *Two hours a week*.

53, 54. MODERN EUROPE.—From the background of the French Revolution to the present. Open to students who have taken Courses 1 and 2 or 3 and 4. Two hours a week. MR. WOOD

57, 58. UNITED STATES HISTORY.—Studies of special periods, or of special phases of the development of American civilization. Open to juniors and seniors who have had Courses 1 and 2 or 9 and 10. Two hours a week.

MR. WHITMORE

59. SOCIAL AND INDUSTRIAL HISTORY OF ENGLAND.—This course begins with the medieval manor and comes down to the present time. Two hours a week. MR. FERGUSON

60. SOCIAL AND INDUSTRIAL HISTORY OF THE UNITED STATES.—This course begins with early colonial history. Two hours a week. MR. FERGUSON

63. STUART ENGLAND.—A detailed survey of the Stuart era in English life, with particular emphasis on the political and social factors of the Restoration period. *Three hours a week*. Prerequisites: Courses 17 and 18.

MR. WOOD

64. CANADIAN HISTORY.—Beginning with the period of early French colonization, and stressing the consideration of the French background in Canadian life, the political and economic development of Canada is traced to the present. Prerequisite: One course in American history and government, or permission of instructor. *Three hours a week.* MR. Wood

79. THE RENAISSANCE.—This course takes up the Renaissance as an

intellectual and social movement in Italy, and its expansion into France, England, and Germany. For seniors only. *Three hours a week*.

MISS COLVIN

80. THE REFORMATION.—This course follows Course 79 and the two are always given the same year. For seniors only. Three hours a week. MISS COLVIN

91, 92. EUROPEAN EXPANSION INTO ASIA AND AFRICA.—Conditions in Asia and Africa prior to European contacts with the peoples of those regions. The development of European interests in Asia and Africa and the mutual results of such influences. *Two hours a week*. MR. MITCHELL

93, 94. THE NEAR EAST.—Historical bases of the Near East problem. Present-day conditions in the Balkan states, the eastern Mediterranean, and the old Ottoman dominion. Mohammedanism. Two hours a week.

MR. MITCHELL

97, 98. STUDY OF HISTORICAL MATERIAL.—Open only to students taking history as their major subject. Two hours a week. MISS COLVIN

Government

31. AMERICAN GOVERNMENT.—The principles and interpretation of the federal government; emphasis on present day political problems which relate to fundamental principles of the American government. Prerequisite to other courses in political science. Not open to freshmen. Three hours a week. MR. MITCHELL, MR. FERGUSON

32. STATE AND LOCAL GOVERNMENTS.—Powers, rights, and obligations of the states in the federal union; formation and admission of states; development of the state constitutions; organization of state and local governments; brief survey of the newer problems connected with state governments. Three hours a week. MR. MITCHELL, MR. FERGUSON

71. FOREIGN GOVERNMENTS.—The political institutions of England; party development and current problems national and local; the government of the overseas dominions; a comparative study. Two hours a week.

MR. MITCHELL

72. FOREIGN GOVERNMENTS.—A comparative study of the political institutions of France, Italy, Germany, and Switzerland; party development and current problems national and local. *Two hours a week*. MR. MITCHELL

87. INTERNATIONAL LAW.—Development, nature, source, and present status; development of internationalism. Juniors and seniors only. Three hours a week. MR. MITCHELL

88. INTERNATIONAL RELATIONS.—An analysis of outstanding post-war problems of the political world and the colonial interests of European states. Emphasis on economic interests and racial differences. Three hours a week. MR. MITCHELL

Courses 65 and 66, Latin-American History, are listed under the Department of Spanish and Italian.

LATIN

PROFESSOR CHASE; MISS AIKEN

1, 2. BEGINNING LATIN.—Equivalent to the first two years of high school study. Four hours a week. Miss Aiken

3. CICERO.—Speeches against Catiline, for the Manilian Law, and Archias. Open to students who have completed two years' study of Latin in high school. Four hours a week. MISS AIKEN

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4. VERGIL.—Aeneid, books i-vi. Open to students who have had less than four years of high school training. Four hours a week.

MISS AIKEN

5. LIVY.-Selections from Livy, History of Rome. Three hours a week. MR. CHASE

6. CICERO AND HORACE.—Cicero, De Senectute; Horace, Odes and Epodes. Three hours a week. MR. CHASE

7, 8. LATIN COMPOSITION, WITH REVIEW OF LATIN SYNTAX.—One MR. CHASE hour a week.

9. TACITUS.—Reading and discussion of the Agricola and Germania. Three hours a week. MR. CHASE

10. TERENCE AND PLAUTUS.—The Phormio of Terence; the Captivi and Trinummus of Plautus; study of early Latin and the development of MR. PETERSON Roman comedy. Three hours a week.

20. TEACHERS' COURSE.—Discussions of topics connected with the teaching of Latin in secondary schools. Study of selected passages of Cæsar, Cicero, and Vergil. Two hours a week. MR. CHASE

21. LATIN COMPOSITION.—Practice in writing Latin; study of Latin syntax. One hour a week. MR. CHASE

22. LATIN COMPOSITION.—Practice in writing Latin; study of Latin rhetoric. One hour a week. MR. CHASE

23. THE YOUNGER PLINY.—Reading of selected letters of Pliny; the Roman Empire. Three hours a week. MR. PETERSON

24. HORACE AND JUVENAL.-Reading of selections from the great satirists; study of Roman satire and social life. Three hours a week.

MR. CHASE

57, 58. ROMAN PHILOSOPHY.-Reading from Cicero's philosophical writings and from Lucretius; discussion of the leading schools of ancient philosophy. Given in alternate years. Three hours a week. MR. LEVINSON

59, 60. ROMAN RHETORIC AND ORATORY.-Quintilian (selections from the Institutio Oratoria); Tacitus (Dialogus de Oratoribus); Cicero (selections from the Brutus, De Oratore, and Orator). Open to students who have taken Courses 1-4. Given in alternate years. Three hours a week. MR. CHASE

107. SANSKRIT.—An elementary course in the classical language of India, with especial reference to the light it throws upon the history and grammar of the languages of Europe. Given when asked for by a sufficient number of students. Two hours a week. MR. CHASE

MATHEMATICS

PROFESSOR HART; PROFESSOR WILLARD; ASSOCIATE PROFESSOR BRYAN; Associate Professor Jordan; Assistant Professor Lucas; Mr. Silverman; Mr. Stewart; Mr. Lavery

Students whose major subject is mathematics are required to take Courses 1, 2 (unless offered for admission), 3, 5, 6, 7, 8, and to elect other courses to a total of forty hours. At least twelve of the forty hours must be chosen from Courses 51, 52, 53, 54, 56, 61, 63, 64 and Astronomy 15, 16, 59 and 60. Mechanics 51 and 52 may be substituted for ten hours of the above group. Astronomy 11 may be taken as mathematics elective. Students majoring in mathematics who intend to teach are advised to elect Courses 26, 63, and 64 as well as several courses in Physics.

1. TRIGONOMETRY.—The trigonometric functions; radian measure; functions of two or more angles; logarithms; solution of right and oblique triangles; trigonometric equations; inverse functions. Three hours a week. MR. HART, MR. WILLARD, MR. BRYAN, MR. SILVERMAN, MR. STEWART, MR. LAVERY

2. SOLID GEOMETRY.—Solid and spherical geometry, including original demonstrations and the solution of numerical problems. Open to all freshmen who did not offer solid geometry for admission. Two hours a week.

3. COLLEGE ALGEBRA.—A brief review of radicals, the theory of exponents, quadratic equations, and the binomial theorem; determinants;

theory of equations. Two hours a week.

MR. HART, MR. WILLARD, MR. BRYAN, MR. SILVERMAN, MR. STEWART, MR. LAVERY

4. SPHERICAL TRIGONOMETRY.—The elements of this subject with problems and applications to spherical astronomy. Given in 1929-30 and alternate years. Two hours a week. MR. SILVERMAN

5. ADVANCED ALGEBRA.—Topics in college algebra not covered in Course 3. Open to students who have taken Courses 1, 2, and 3, and to freshmen with especially good high school preparation. Three hours a week. MR. LUCAS

6. ANALYTIC GEOMETRY.—The point, line, circle, and conic sections; higher plane curves; elements of solid analytic geometry. Open to students who have had Courses 1 and 3 and the equivalent of Course 2. Four hours a week.

> MR. HART, MR. WILLARD, MR. BRYAN, MR. LUCAS, MR. STEWART, MR. LAVERY

7. CALCULUS.-Differentiation of the elementary forms of algebraic and transcendental functions; successive differentiation; differentials; rates; maxima and minima. Open to students who have taken Courses 1, 2, 3, and 6. Five hours a week.

> MR. WILLARD, MR. BRYAN, MR. JORDAN, MR. LUCAS, MR. SILVERMAN

8. CALCULUS.—A continuation of Course 7. Integration of the elementary forms; integration as a summation; various methods of integration. Applications of differential and integral calculus. Five hours a week.

> MR. WILLARD, MR. BRYAN, MR. JORDAN, MR. LUCAS, MR. SILVERMAN

9. TRIGONOMETRY.—A course equivalent to Course 1, given to freshmen in Forestry. Two hours a week. MR. BRYAN, MR. SILVERMAN

10. APPLICATIONS OF TRIGONOMETRY.—Two hours a week.

MR. JORDAN, MR. SILVERMAN

11. MATHEMATICS FOR AGRICULTURAL STUDENTS.—Three hours a week. MR. LUCAS

12. A CONTINUATION OF COURSE 11.—Two hours a week.

MR. SILVERMAN

17. MATHEMATICAL THEORY OF INVESTMENT.—A study of interest, both simple and compound, present value, discount, and annuities. Thruout the course numerous problems are solved to illustrate the theory and to fix the principles involved. Two hours a week. MR. WILLARD

18. MATHEMATICAL THEORY OF INVESTMENT.—A continuation of Course 17. A study of amortization, the valuation of bonds, sinking funds and depreciation, building and loan associations; also the theory of probability and its application to life annuities and certain problems connected with life insurance. Two hours a week. MR. WILLARD

19, 20. THE THEORY OF STATISTICS — A study of the theory of statistics and the application of statistical methods. Two hours a week.

MR. BRYAN

21. SOLID GEOMETRY.-The equivalent of Course 2 but given in the fall semester. Three hours a week. MR. LAVERY

26. College Geometry.—An elementary course in modern synthetic geometry. The nine-point circle, harmonic section, poles and polars, Ceva's theorem, Menelaus's theorem are among the topics considered. Emphasis is placed on the solution of original exercises. Three hours a week. Not given in 1928-29.

51. ADVANCED ANALYTIC GEOMETRY.—A course for students who have completed Courses 5, 6, 7, and 8. Given in 1928-29 and alternate years. Three hours a week. MR. LUCAS

52. SOLID ANALYTIC GEOMETRY.—Given in 1928-29 and alternate years. Three hours a week. MR. LUCAS

53. ADVANCED CALCULUS.—This course is varied from time to time by using different texts. Open to students who have taken Courses 6, 7, and 8. Three hours a week. MR. LUCAS

54. ADVANCED INTEGRAL CALCULUS.—A continuation of Course 53. Three hours a week. MR. LUCAS

56. DIFFERENTIAL EQUATIONS.—Open to students who have taken Courses 7, 8. Three hours a week. MR. WILLARD

61. HISTORY OF MATHEMATICS.—Lectures and recitations. A course essential to students majoring in mathematics and to prospective teachers of mathematics. Given in 1928-29 and alternate years. Two hours a week. MR. BRYAN

63, 64. TEACHERS' COURSE IN MATHEMATICS.—A critical study of the methods of teaching high school mathematics, an investigation of fundamental principles, and directions for the selection and arrangement of the subject matter of secondary school mathematics in harmony with modern mathematics. Given in 1927-28 and alternate years. Three hours a week. MR. BRYAN

68. THEORY OF NUMBERS.—A study of the elements of the theory of algebraic numbers. The discussions will consider the divisibility of integers, congruences, and quadratic residues in the rational realm. Three hours a week. Not given in 1928-29. MR. BRYAN

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73, 74. ADVANCED STATISTICS.—Derivations of formulas, proofs of propositions, discussions of preferential methods of correlation and of procedure, investigations by individuals and by groups. Three hours a week. Not given in 1928-29.

101. THEORY OF FUNCTIONS OF A COMPLEX VARIABLE.—An elementary course in the treatment of analytic functions. The course includes a consideration of infinite series, both single and double, infinite products, conformal representation, and a brief application of the theory to Fourier's series, the gamma, beta, and Bessel functions, and spherical harmonics. Three hours a week. Not given in 1928-29. MR. WILLARD

102. ELLIPTIC FUNCTIONS.—The Weirstrass and Jacobi functions. A brief treatment of transformation theory, and numerous examples. Three hours a week. Not given in 1928-29. MR. WILLARD

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105. VECTOR ANALYSIS.—The elements of vector algebra and the differential and integral calculus of vectors. Applications to geometry and mechanics. *Three hours a week*. Not given in 1928-29. MR. LUCAS

115. THEORY OF FUNCTIONS OF REAL VARIABLES.—The Cantor theory of real numbers. Elementary point set theory. Limits. Properties of continuous functions. Series. Implicit functions. Cauchy-Reimann theory of integration. Three hours a week. Not given in 1928-29. MR. LUCAS

116. FOURIER'S SERIES.—The formal expansion of a function in a trigonometric series. Theory of convergence of such series. Legendre's polynomials. A study of the degree of accuracy attainable in the approximate representation of a given function by means of polynomials or finite trigonometric sums. *Three hours a week*. Not given in 1928-29. MR. LUCAS

119, 120. DIFFERENTIAL GEOMETRY.—Metric theory of twisted curves and surfaces in space. Lectures and problems. Prerequisite, solid analytical geometry. *Three hours a week*. Not given in 1928-29.

The department is also prepared to give the following courses, which may be offered when there is sufficient demand: 65. Theory of Equations. 66. MODERN PROJECTIVE GEOMETRY. 71, 72. MODERN HIGHER ALGEBRA. 109. CELESTIAL MECHANICS. 110. HYDRODYNAMICS. 117. THEORY OF SUB-STITUTION GROUPS AND OF ALGEBRAIC FIELDS. 118. THEORY OF TRANS-FORMATION GROUPS (LIE THEORY).

MUSIC

DIRECTOR SPRAGUE

3, 4. MUSIC APPRECIATION.—A study of the masterpieces of music from the standpoint of the listener. Analytical rather than historical. The vital forces and personalities in the development of the art noted briefly, but the chief stress laid upon the music itself. The evolution of form traced from the folk-song to the symphony. Lectures, illustrations, prescribed readings, reports. *Two hours a week*.

5, 6. INTRODUCTORY HARMONY.—The grammar of music, basic to an understanding of music structure. The foundation of the art of composition. A study of the conditions under which tones sound together and progress in combination. The invention and harmonization of melodies. A knowledge of notation required. *Two hours a week*.

7, 8. ADVANCED HARMONY.—Supplementary to Courses 5, 6 and designed to apply to the more advanced problems of tone combination the training already obtained. Emphasis placed upon harmonic analysis, melody writing, and composition in the simpler forms. Two hours a week.

9, 10. COUNTERPOINT.—The art of combining melodies. A correlative with Harmony as the material of composition. Freedom and facility of expression in all the forms of music writing developed thru its study and practice. Original work the chief aim of the course. Courses 5, 6 a prerequisite. *Two hours a week*.

11, 12. MUSIC IN THE NINETEENTH CENTURY.—A survey of the rise of Romanticism, including the evolution of the modern orchestra and its attendant art products, the symphonic poem and the music drama. Analysis of masterworks, assigned studies. Courses 3, 4 a prerequisite. Two hours a week.

13, 14. ORCHESTRATION.—A study of the modern symphony orchestra, its instrumental individualities and groupings. Analysis of representative works through score-reading, phonographic records, and attendance at concerts. Assigned readings in history and theory. Practical scoring, with performance of successful class work. Candidates must satisfy the instructor of the proper degree of musicianship. *Two hours a week*.

25, 26. UNIVERSITY CHORUS.—An applied course in the history, development, and interpretation of choral music, designed for ensemble study and public performance of representative compositions. A satisfactory test of musical aptitude and permission of the director of music a prerequisite. Two hours a week.

51. INTERPRETATION AND CONDUCTING.—A consideration of the problems of organizing bodies of singers and players; of time-beating; of program building; and of interpretation as applied to the rehearsal and performance of choral and orchestral music. Membership in the University chorus, orchestra, or band a prerequisite. Open to juniors and seniors of sufficient talent. One hour a week.

PHILOSOPHY

PROFESSOR LEVINSON

This department aims primarily at correlating the student's work in other fields into a unified conception of the methods and ideals of knowledge. See Courses 1, 2; 6; 51, 52.

1, 2. CONTEMPORARY CIVILIZATION.—An orientation course restricted to Arts freshmen. The course aims at assisting the student in an intelligent choice of his major subject and electives by presenting an elementary account of the history and present condition of the subjects treated by the various departments in the College of Arts and Sciences. Given in collaboration with other departments of the college. *Three hours a week*.

COLLEGE OF ARTS AND SCIENCES

3. HISTORY OF ANCIENT PHILOSOPHY.-Greek thought from the beginnings to the Christian era, with especial reference to the philosophy of Plato and Aristotle. Three hours a week.

4. HISTORY OF MEDIEVAL AND MODERN PHILOSOPHY.-Beginning with the philosophy of the Christian church as expounded by St. Thomas Aquinas; sketching the rise of experimental science and the major philosophical systems from Bacon to William James. Three hours a week.

6. THE LOGIC OF SCIENCE.—This course is designed to contribute to a more adequate comprehension of the nature of reflective thinking. An attempt will be made to present a general view of the various divisions of knowledge, with illustrations of the logic and method of procedure in each. Open only to students in the College of Technology. Two hours a week.

51, 52. TOPICS IN PHILOSOPHY.—This course is restricted to a limited number of properly qualified upperclassmen, whose needs in philosophy are not satisfied by any of the other courses offered by the department. Topics associated with the student's major subject will be studied thru tutorial conferences, assigned readings, and reports. No work in philosophy is prerequisite. Two or three hours a week.

A course in Roman Philosophy is listed under the Department of Latin (Latin 57, 58).

PHYSICS

PROFESSOR STEVENS; PROFESSOR FITCH; ASSOCIATE PROFESSOR CROFUTT; ASSISTANT PROFESSOR PISTON; MR. DUNHAM; MR. LARSON

Students electing physics as a major subject are expected to take Courses 1, 2, or 5, 6, and 3, 4, 16, 17, 18, and elect other courses making a total of 30 hours. Courses in mechanics may be taken as physics electives. Students majoring in physics are expected to take several courses in mathematics.

1, 2. GENERAL PHYSICS.—A course covering the fundamental relations in mechanics, sound, heat, light, and electricity. Lectures, recitations, and laboratory. Class room, four hours a week; laboratory, †two hours a week.

MR. FITCH, MR. CROFUTT, MR. PISTON, MR. DUNHAM, MR. LARSON

3, 4. PHYSICS PROBLEMS.—The solution of problems in General Physics. Open to and especially recommended for students in Courses 1 and 2, or 5 and 6. One hour a week. MR. FITCH

5, 6. GENERAL PHYSICS.—A course covering the ground of Courses 1 and 2 with more attention to the experimental and historical aspects and

less to the mathematical. Class room, three hours a week; laboratory, †two hours a week. Under special circumstances the class work may be taken without the laboratory work. MR. PISTON, MR. DUNHAM, MR. LARSON

10. METEOROLOGY.—A course covering the essential principles of the subject including a study of instruments and weather predictions. Three hours a week. MR. PISTON

11. METEOROLOGY.—A continuation of Course 10 dealing with special topics. Laboratory, †four hours a week. Mr. PISTON

16. HISTORY OF PHYSICS.—A textbook course dealing with the lives of those men who have contributed most to the development of physics. Given in 1928-29 and alternate years. *Two hours a week*. Mr. STEVENS

17, 18. Advanced Physics.—A course dealing with certain chosen topics somewhat more in detail than the beginning courses. Two hours a week. Mr. Fitch

51. MECHANICS AND HEAT LABORATORY.—An advanced laboratory course stressing the accuracy of results. *†Four hours a week*. MR. PISTON

52. MECHANICS AND HEAT LABORATORY.—An advanced laboratory course stressing the accuracy of results. *†Four hours a week*.

MR. CROFUTT, MR. PISTON

53. ELECTRICAL MEASUREMENTS.—An advanced laboratory course in the measurement of electrical quantities. Both direct and alternating currents are studied. *†Six hours a week*. MR. CROFUTT

55. ELECTRICITY AND MAGNETISM.—Recitations on the mathematical theory of direct current phenomena. Given in 1928-29 and alternate years. *Two hours a week.* MR. FITCH

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56. ELECTRICITY AND MAGNETISM.—A continuation of Course 55, dealing with alternating current phenomena. Given in 1928-29 and alternate years. Two hours a week. MR. FITCH

58. MATHEMATICAL PHYSICS.—The application of mathematical methods to the treatment of problems in physics. Given in 1929-30 and alternate years. Two hours a week. MR. STEVENS

60. SOUND.—Lectures and recitations. Given in 1928-29 and alternate years. Two hours a week. MR. CROFUTT

61. HEAT.—An advanced course. Given in 1929-30 and alternate years. Three hours a week. MR. FITCH

63. THEORY OF MEASUREMENTS.—This course is based upon the theory of least squares, and covers such topics as adjustment of observations, propagation of errors, empirical formulae, and graphic methods. Given in 1927-28 and alternate years. Two hours a week. MR. STEVENS 65. VACUUM TUBES.—Lectures and recitations covering the theory of the vacuum tube as used in amplifiers, detectors, oscillators, etc. Course 2 and Mathematics 8 are prerequisites. Given in 1929-30 and alternate years. Two hours a week. MR. FITCH

66. VACUUM TUBE LABORATORY.—Laboratory work with vacuum tubes covering the work of Course 65. Given in 1929-30 and alternate years. †Two hours a week. MR. FITCH

69. MODERN PHYSICAL THEORIES.—A course dealing with radioactivity, X-rays, the vacuum tube and other electron phenomena which lead to the theory of matter. Courses 1, 2 or 5, 6 are prerequisites. Given in 1929-1930 and alternate years. *Three hours a week*. MR. CROFUTT

71. THERMODYNAMICS.—A study of the principles of thermodynamics and their application to problems in physics and chemistry. Two hours a week. MR. PISTON

74. OPTICS.—An advanced course in the subject. Lectures; recitations. Mathematics 8 is a prerequisite. Given in 1928-29 and alternate years. Three hours a week. MR. STEVENS

75. Optics LABORATORY.—An advanced laboratory course in light. *†Four hours a week.* Mr. Piston

81, 82. ADVANCED LABORATORY.—An original investigation by the student under the direction of a faculty member. In this course the student learns about research by actually taking data on an original problem. All senior physics students are expected to take this for one semester. $†Two \ or$ more hours a week. MR. STEVENS, MR. FITCH, MR. CROFUTT, MR. PISTON

101, 102. SPECIAL LABORATORY COURSES.—A subject for investigation is assigned or some published research is repeated. Open only to graduate students. †Four or more hours a week.

MR. STEVENS, MR. FITCH, MR. CROFUTT

PSYCHOLOGY

PROFESSOR DICKINSON; MR. BRUSH; MR. WEDELL

1, 2. GENERAL PSYCHOLOGY.—Introductory course presenting facts and laws of mental life. Psychology of elementary mental processes and higher mental processes, supplemented by class demonstrations. Laboratory work required. Three hours a week. MR. BRUSH, MR. WEDELL

61, 62. APPLIED PSYCHOLOGY.—Psychology applied to business, industry, advertising, salesmanship, and other fields. The application of psychological methods and tests in the selection and training of workers. Two one-semes-

ter courses covering the same subject matter. For Technology students only. Three hours a week. MR. DICKINSON

64. ADVERTISING.—A course designed to acquaint the student with the psychological principles involved in advertising. Opportunity for the practical application of these principles will be given in the form of the re-writing of advertisements appearing in newspapers and magazines. For a limited number of students particularly interested in advertising. *Two hours a week*.

65. PSYCHOLOGY OF CHILDHOOD.—A study of the mental growth of the child to six years of age. Native equipment and environmental influences are given adequate consideration. Modern experimental techniques of child study are discussed. Prerequisite, Psychology 1, 2. Three hours a week.

MR. DICKINSON

66. EDUCATIONAL PSYCHOLOGY.—Lectures and discussions, supplemented by laboratory work, with special reference to native equipment, perception, progress in learning, and methods of study. Prerequisite, Psychology 1, 2. Three hours a week. MR. DICKINSON

67, 68. MENTAL MEASUREMENT.—Training in the use of the more commonly used psychometric methods with opportunity for their application to practical or research problems. During the first semester the emphasis will be upon the technical training, during the second semester upon application to problems. The technical training will be supplemented by readings, discussions, or lectures. Open only to a limited number of qualified students. Primarily for seniors and graduate students. Prerequisite, Psychology 1, 2. *Two hours a week.* Mr. Brush

71, 72. QUALITATIVE EXPERIMENTAL PSYCHOLOGY.—A course designed to afford an understanding of scientific methods in observation as applied to mental material and to acquaint the student at first hand with the fundamental laws of the psychological organism. Prerequisite, Psychology 1, 2. *Two hours a week.* MR. BRUSH, MR. WEDELL

81, 82. ABNORMAL PSYCHOLOGY AND MENTAL HYGIENE.—A study of mental abnormalities and of the normal mentality, with a view to a better understanding of educational practice and the problems of human adjustment. Thru the courtesy and cooperation of Dr. C. J. Hedin, superintendent, clinics are conducted at the Bangor State Hospital. Prerequisite, Psychology 1, 2. Three hours a week. MR. DICKINSON

95, 96. PROBLEMS IN PSYCHOLOGY.—Primarily for seniors and graduate students. Hours arranged. MR. DICKINSON, MR. BRUSH

97, 98. SEMINAR IN PSYCHOLOGY.—Advanced work for those interested and fitted for it. Prerequisite, permission of Mr. Dickinson. One or

COLLEGE OF ARTS AND SCIENCES

two hours a week depending upon the subject and group involved. MR. DICKINSON

PUBLIC SPEAKING

PROFESSOR BAILEY; MR. BRICKER

Courses in Speaking

1. PUBLIC SPEAKING .--- This course is primarily for Technology students. It trains the student to organize material and to deliver short speeches from the platform. Extemporaneous speaking on various subjects is especi-MR. BAILEY, MR. BRICKER ally emphasized. Two hours a week.

1a. PUBLIC SPEAKING.—Similar in general character to Course 1 but primarily for students in Arts and Sciences. Two hours a week.

MR. BAILEY, MR. BRICKER

2a. PUBLIC SPEAKING.—Similar to Courses 1 and 1a but designed to meet the needs of all students who may wish to begin Public Speaking the second semester. Two hours a week. MR. BAILEY, MR. BRICKER

3a. ARGUMENTATION AND DEBATE.—This course is primarily for students in Arts and Sciences. The written argument is stressed. Briefs and frequent debates in class are required. Prerequisites, English 1 and Public Speaking 1a or equivalent. Two hours a week. MR. BRICKER

4. DEBATING.—This course is primarily for Technology students and should be taken after Course 1. Public or technical questions are discussed

and debated in class. Extemporaneous speaking is emphasized. Two hours a week. MR. BRICKER

4a. ARGUMENTATION AND DEBATE.—Similar to Course 3a but offered in the spring semester. Two hours a week. MR. BRICKER

6. PERSUASIVE SPEECH.—After Course 1, 1a, or 2a. Persuasion is especially stressed. Review of modern speeches; short original speeches. MR. BAILEY, MR. BRICKER Two hours a week.

11. PARLIAMENTARY ORDER.—This course should be taken by students who desire some knowledge of the rules governing assemblies. The class organizes as a Parliamentary Society, constructing and adopting a constitution and by-laws. The class-room sessions are conducted in parliamentary order, each member having an opportunity to preside as president and to act as secretary. Special reports concerning the sources of common parliamentary law are given by members of the class. Two hours a week.

MR. BRICKER

12. THE SALES TALK.—A course considering the salesman problem in presenting his proposition. Special study of the preparation of the sales talk and of qualities necessary in personality in order to make speech convincing. Practice in presentation. Offered in 1930 and frequent intervals thereafter. *Two hours a week*. MR. BAILEY

13. GREAT ORATORS.—A study of representative orators, English and American. The structure of the oration and the rhetoric of oratory. Longer original speeches. Prerequisite, four hours in public speaking. Two hours a week. MR. BAILEY

14. PARLIAMENTARY PROCEDURE.—A continuation of Course 11. A study is made of the best political and legal speeches. Moot trials, moot League of Nation sessions, etc. are held. *Two hours a week*. MR. BRICKER

20. INTERCOLLEGIATE DEBATING.—The subject of this course is the University debating question of the year. Students who have passed Courses 3a, 4 or 4a or who have shown themselves especially proficient in debate are admitted to this course. *Two hours credit.* MR. BRICKER

54. ADVANCED PUBLIC SPEAKING.—After Course 13 or six hours in speaking. The working out of a public address of at least forty minutes is the major duty of this course. *Two hours a week*. MR. BAILEY

56. SPEECH CORRECTION.—A course designed for teachers and for those who desire to correct defects in their speech. The course consists in class reports, group discussions, and laboratory work. Offered in 1930 and frequent intervals thereafter. *Two hours a week*. MR. BRICKER

Courses in Expression

7, 8. INTERPRETIVE READING.—The reading and rendering of various selections of merit form the basis of this course. It aims to create the expressional and art side of reading and speaking. *Two hours a week*.

MR. BAILEY

14. SHAKESPEAREAN READING.—An oral study of Shakespeare. Expressional reading of a number of great scenes. After Course 7 and 8. Offered in 1929 and alternate years. *Two hours a week*. MR. BAILEY

51, 52. READING SEMINAR.—The working out of an entire play. Open only to advanced students who have shown marked ability in expression and desire to do serious platform work. The consent of the head of the department is necessary for enrollment. *Two hours a week*. MR. BAILEY

Courses in Acting

9. THE ONE-ACT PLAY.—The study and the presentation in class of several one-act plays. One or more public performances. Two hours a week. MR. BAILEY, and Student Assistants

10. THE LONGER PLAY.—The study and presentation of one long and several shorter plays. MR. BAILEY, and Student Assistants

15, 16. PLAY PRODUCTION.—Students interested in play work, who have had Public Speaking 9 or 10 are eligible for this course. Two hours credit. MR. BAILEY

17, 18. PLAY DIRECTION.—The problems of the stage director are considered and practice is given in producing plays. Costuming, make-up, and stage craftsmanship are considered. This course should be taken by students who may put on plays. After Courses 9 and 10. Special permission from the head of the department is required. Two hours a week. MR. BAILEY

SPANISH AND ITALIAN

PROFESSOR PETERSON; ASSISTANT PROFESSOR ARNOLD; MR. CABRERA

Spanish

Majors in this department are required to complete Courses 53, 54, 57, and 58; they are required also to take History 11, 12 or 65, 66. An approved minor in Spanish consists of Courses 3, 4, 5, 6, and one additional course.

1, 2. ELEMENTARY SPANISH.—The basic principles of the grammar are studied, with attention to aural and oral practice and accurate translation. Stress is laid upon the acquirement of the ability to read current publications. Five hours a week. MISS ARNOLD, MR. CABRERA

la, 2a. ELEMENTARY SPANISH.—Similar to the preceding. Designed for upper class students but open to freshmen who are taking concurrently another foreign language. Three hours a week. MR. CABRERA

3, 4. INTERMEDIATE SPANISH.—For second year students. An attempt is made to secure facility in the reading of ordinary prose and to gain some acquaintance with present day literature. Collateral reading, review of grammar, and study of idioms. *Three hours a week*.

Mr. Peterson

5, 6. ELEMENTARY COMPOSITION AND CONVERSATION.—May be taken by properly qualified second-year students who are pursuing at the same

time Courses 3 and 4. Stress is laid upon the acquisition of a practical vocabulary. Review of the grammar, dictation, oral work, and translation into Spanish. *Two hours a week*. MISS ARNOLD, MR. CABRERA

7. COMMERCIAL SPANISH.—The object of this course is to acquaint the student with the forms of private and commercial correspondence and the vocabulary used in the business world. Reading of selections dealing with industrial and commercial life. Given in 1929-30 and alternate years. Three hours a week. MISS ARNOLD

51. THE SPANISH NOVEL.—Selections from representative novelists of the modern period such as Fernan Caballero, Valera, Perez Galdos, Pardo Bazan, and Palacio Valdes form the subject of study. Collateral reading, reports, and lectures on the history of the novel. Given in 1928-29 and alternate years. *Three hours a week*. MISS ARNOLD

52. THE SPANISH DRAMA.—The study of selected plays representing the "Golden Age" and the neo-classic period and the rapid reading of the work of more recent dramatists. Given in 1929-30 and alternate years. *Three hours a week*. MISS ARNOLD

53, 54. ADVANCED COMPOSITION AND CONVERSATION.—A continuation of Courses 5 and 6 for third or fourth year students. Translation from English to Spanish, original compositions on assigned subjects, and oral work of different kinds to secure facility in expression form the basis of this course. Given in 1929-30 and alternate years. *Two hours a week*.

MR. CABRERA

57, 58. HISTORY OF SPANISH LITERATURE.—The study of a textbook on the development of literature in Spain and Spanish-America, and the reading of selections from representative authors of various periods, partly in translation and partly in the original. Given in 1928-29 and alternate years. *Two hours a week*. MR. PETERSON

70. SPANISH CLASSICS.—A study of selections from the work of Cervantes, Lope de Vega, Calderon, and other writers of the sixteenth and seventeenth centuries. Given in 1928-29 and alternate years. Three hours a week. MISS ARNOLD

102. OLD SPANISH.—A study of the laws governing the development of Spanish from popular Latin, and its growth from the beginning to the present day. Reading of selections from early authors. Offered occasionally. Given in 1929-30. Two hours a week. MR. PETERSON

History

65, 66. LATIN-AMERICAN HISTORY AND INSTITUTIONS.—The colonization, formation, and development of the twenty Hispanic-American republics. COLLEGE OF ARTS AND SCIENCES

Emphasis on the salient features of their civilization, problems and possibilities, and relations with the United States. Given in 1929-30 and alternate years. Two hours a week. MR. PETERSON

Italian

1, 2. ELEMENTARY ITALIAN.—A course in Italian grammar, reading, and composition with as much oral practice as time permits. Students will not be permitted to elect Elementary Italian and Elementary Spanish in the same year. Three hours a week. MR. PETERSON

3, 4. MODERN ITALIAN PROSE.—Selections from representative authors are studied in an endeavor to acquire as much facility in reading as possible. Review of the grammar, composition, and collateral reading. Two hours a week. MR. PETERSON

52. DANTE.—Reading of portions of the Inferno and Vita Nuova; study of the life and times of Dante and his influence in literature. Given generally in alternate years. Two hours a week. MR. PETERSON



College of Technology

FACULTY OF INSTRUCTION

PAUL CLOKE, M.S., E.E., Dean of the College of Technology and Director, Technology Experiment Station

CHARLES PARTRIDGE WESTON, C.E., M.A., Professor of Mechanics WILLIAM EDWARD BARROWS, E.E., Professor of Electrical Engineering WILLIAM JORDAN SWEETSER, B.S., Professor of Mechanical Engineering CHARLES ANDREW BRAUTLECHT, Ph.D., Professor of Chemistry EMBERT HIRAM SPRAGUE, B.S., Professor of Civil Engineering BENJAMIN CALVIN KENT, B.S., Professor of Engineering Drafting ARTHUR ST. JOHN HILL, E.E., Professor of Electrical Engineering ALPHEUS CROSBY LYON, B.S., C.E., Associate Professor of Civil Engineering BERTRAND FRENCH BRANN, M.S., Associate Professor of Chemistry HAROLD WALTER LEAVITT, C.E., M.S., Associate Professor of Civil Engineer-

ing and Secretary, Technology Experiment Station

WALTER JOSEPH CREAMER, Jr., E.E., Associate Professor of Electrical Communication

PAUL DECOSTA BRAY, B.S., Ch.E., Associate Professor of Chemistry *WESTON SUMNER EVANS, M.S., Assistant Professor of Civil Engineering HARRY DEXTER WATSON, B.S., Assistant Professor of Mechanical Engineering

HAROLD CHANDLER WHITE, B.S., Ch.E., Assistant Professor of Chemistry CARL EVERETT OTTO, Ph.D., Assistant Professor of Chemistry EVERETT LOUIS ROBERTS, B.S., Assistant Professor of Electrical Engineering IRVING HENRY PRAGEMAN, Ph.B., M.E., Assistant Professor of Mechanical Engineering

EVERETT WILLARD DAVEE, Instructor in Mechanical Engineering EVERETT JOSHUA FELKER, Instructor in Civil Engineering HARRY ROY PERKINS, Instructor in Mechanical Engineering ARTHUR OSGOOD WILLEY, B.S., Instructor in Mechanical Engineering JOHN GEORGE LESLIE CAULFIELD, M.S., Instructor in Chemistry Lyle Clayton Jenness, M.S., Instructor in Chemistry THERON ALONZO SPARROW, B.S., Instructor in Engineering Drafting KENNETH GERARD CRABTREE, B.S., Instructor in Electrical Engineering

*On leave of absence, spring semester 1929

COLLEGE OF TECHNOLOGY

WILLIAM LESTER GILLILAND, Ph.D., Instructor in Chemistry ALVIN SLOANE, B.S., Instructor in Engineering Drafting LAURENCE BRACKETT HOYT, B.S., Assistant Professor of Civil Engineering LAWRENCE LEWIS OSBORN, B.A., M.A., Instructor in Chemistry ROBERT NATHANIEL POLLOCK, B.S., M.S., Instructor in Chemistry DAVID HARVEY STEVENS, Instructor in Civil Engineering HERBERT BURR ABBOTT, Mechanician in Mechanical Engineering LEO EDWARD DAY, Assistant in State Highway Laboratory RALPH FREEMAN BOWDEN, Electrician in Electrical Engineering Department CLAYTON LEONARD SAWYER, Assistant in State Highway Laboratory

GENERAL INFORMATION

The College of Technology provides technical instruction in chemistry and in various branches of engineering. In such technical curricula it is necessary to prescribe a large proportion of the work; but some elective studies may be chosen in the junior and senior years. Under each of the curricula described below is given a tabulated statement of the subjects pursued and the amount of work required. The college comprises:

> Chemical Engineering Curriculum Chemistry Curriculum Civil Engineering Curriculum Electrical Engineering Curriculum Mechanical Engineering Curriculum

The following requirements for graduation are common to all curricula in this college:

1. A total of 150 semester hours exclusive of physical training. Three of these hours may be for thesis.

2. Drawing, four semester hours.

3. Language: English, six semester hours. Foreign language: If entrance conditions are fully satisfied, students in Civil, Electrical, and Mechanical Engineering are not required to take foreign language in college. Students in Chemistry and Chemical Engineering are expected to have a reading knowledge of both French and German. For specific requirements in these languages see the Chemical Enginering curriculum. Public Speaking, two semester hours.

4. Mathematics, eighteen semester hours.

5. Military science, seven semester hours. Physical Training, two years.

6. Science: Chemistry, eight semester hours; Physics, ten semester hours.

At graduation in any of these curricula the student receives the degree of Bachelor of Science.

Upon the completion of one year's prescribed work in residence, including the presentation of a satisfactory thesis, he may receive the degree of Master of Science. Three or more years after graduation, upon the presentation of a satisfactory thesis and proofs of professional work, he may receive a professional degree.

MAINE TECHNOLOGY EXPERIMENT STATION

Staff and Assistants

PAUL CLOKE, M.S., E.E., Director
HAROLD WALTER LEAVITT, C.E., M.S., Secretary
CHARLES ANDREW BRAUTLECHT, Ph.D., Professor of Chemistry and Chemical Engineering
EMBERT HIRAM SPRAGUE, B.S., Professor of Civil Engineering
WILLIAM EDWARD BARROWS, E.E., Professor of Electrical Engineering
WILLIAM JORDAN SWEETSER, B.S., Professor of Mechanical Engineering
WESTON SUMNER EVANS, M.S., Assistant Professor of Civil Engineering
LYLE CLAYTON JENNESS, M.S., Instructor in Chemistry
HARRY LOWELL GREENLEAF, B.S., Research Assistant for the State Highway Commission

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HERBERT HUNT SAWYER, B.S., Research Assistant for the State Highway Commission

ANDREW ADAMS, B.S., C.E., Research Assistant for the State Highway Commission

LEO EDWARD DAY, Laboratory Assistant CLAYTON LEONARD SAWYER, Laboratory Assistant MABEL MARIE WILSON, Clerk

General Statement

By action of the Board of Trustees, June, 1915, the establishment of a Maine Technology Experiment Station was authorized. This station is under the direct control of the Dean of the College of Technology and the heads of the departments.

Income

The income of the Station is derived from University appropriations and from the State Highway Department.

Object

The objects of the Station are to carry on practical research in engineering subjects, make investigations for State boards, and municipal authorities. furnish scientific information to the industries of the State, and distribute accurate scientific knowledge to the people of the State.

Equipment

Most of the Station offices and laboratories are at present located in Wingate Hall, described in the section on University buildings. The station is well equipped for the testing of concrete and highway materials, both bituminous and non-bituminous. The new Crosby Laboratory will soon be available for researches in the field of hydraulics. This laboratory is one of the best of its size in the United States. It is now available for steam, gas motor, metallurgical, and strength of materials testing. The electrical laboratory in Lord Hall is equipped with a 150,000 volt testing transformer and standard instruments for calibration purposes. The Chemical Engineering Department in Aubert Hall is equipped for the testing of pulp and paper products. The highway materials laboratory in the basement of Wingate Hall is equipped jointly by the Civil Engineering Department and the Maine State Highway Department.

Investigations

The principal line of research has been in the field of concrete and concrete materials. Some work has also been started in the pulp and paper industry. Researches are also being conducted in the electrical, mechanical, and chemical fields. The State Highway Department uses the Station laboratories during the winter months to conduct special research projects. Two men have been sent to the University for this purpose every year during the past five years.

Publications

The Station issues two series of publications: Bulletins and Papers. It has issued twenty-one (21) Bulletins and six (6) Papers. The papers have been issued as reprints from such technical journals and magazines as: Proc. Nat. Acad. of Sciences, Proc. Am. Soc. Testing Materials, Proc. Am. Conc. Inst., Proc. Am. Soc. Civil Eng.

FRESHMAN YEAR

Common to all engineering courses and Chemistry.

Fall Scmester		Spring Scmester				
Subject	Hou	гs	Subject	Hou	îs 🛛	
R	Rec. La	b. Cr.	Re	ec. Lab	. Cr.	
Ch 1 (Gen. Chem. or			Ch 2 (Gen. Chem. or			
Ch 3 Adv. Gen. Chem.).	2 4	4	Ch 4 Adv. Gen. Chem.) .2	2 4	4	
Eh 1 (Comp. & Lit.)	.3 0	3	Eh 2 (Comp. & Lit.)	3 0	3	
Md 1 (Funds. Draft.)	0 4	2	Md 2 (Ely. Mach.			
Ms 1 (Trig.)	2 0	2	Draft.)() 4	2	
Ms 3 (Alg.)	2 0	2	Ms 6 (Anal. Geom.)	4 0	4	
Mt 1 (Military)	.2 1	11/2	Mt 2 (Military)	2 1	11/2	
Ps 1 (Mech. & Heat)	4 2	5	Ps 2 (Elec., Mag., Light			
Pt 1 (Phy. Education)	0 2	0	& Sound)4	1 2	5	
			Pt 2 (Phy. Education)) 2	0	
1	5 13	191/2	13	13	191/2	

CURRICULA

Chemical Engineering Curriculum

This curriculum is offered to furnish training in engineering and chemistry. The first two years are almost identical with those under the Chemistry curriculum, but in the junior and senior years the students enrolled take, in part, fundamental courses in mechanical and electrical engineering, while in the Chemistry curriculum the student takes subjects having a chemical and general scientific objective. Chemical engineering graduates will be prepared to enter the profession of chemical engineering and to occupy positions as chief analysts, production foremen, research chemists, chemists and engineers in federal and other government civil service laboratories, and as superintendents' assistants in metallurgical works, steel mills, bleacheries, dye houses, chemical plants, rubber works, gas works, sugar refineries, pulp and paper mills, rayon plants, lacquer plants, etc.

COLLEGE OF TECHNOLOGY

Option I. Regular Curriculum

FRESHMAN YEAR

Common to all engineering courses and Chemistry. See page 170.

SOPHOMORE YEAR

Fall Semester			Spring Semester			
Subject Hours		'S	Subject H	Hours		
	Rec.	. Lab	. Cr.	Rec.	Lab	Cr.
Ch 31 (Qual. Anal.)	.2	9	5	Ch 40 (Quant. Anal.)1	8	4
Ch 37 (Hist. Chem.)	.1	0	1	(Foreign Lang.		
(Foreign Lang.).	.5	0	5	or Economics)5	0	5
Ms 7 (Diff. Calculus).	.5	0	5	Me 24 (Eng. Calcs.)1	0	1
Mt 3 (Military)	.2	1	2	Me 28 (Kinematics)2	0	2
Pb 1 (Pub. Speak.)	.2	0	2	Ms 8 (Int. Calculus)5	0	5
Pt 3 (Phy. Education)	0	2	0	Mt 4 (Military)2	1	2
				Ps 54 (Elec. Meas.)0	6	3
				Pt 4 (Phy. Education) 0	2	0
	-	_	-		_	-
	17	12	20	16	17	22

JUNIOR YEAR

Ch 51 (Organ. Chem.)3	4	5	Ch 52 (Organ. Chem.) 3	4	5
Ch 61 (Adv. Quant.			Ch 72a (Phys. Chem.)3	0	3
Anal.)1	8	4	Ch 74 (Phys. Ch.		

Methods)0 Ch 71a (Phys. Chem.)...3 0 3 2 4 (Foreign Lang. Ee 30 (Dir. Cur. or Economics)...3 Machy.)2 3 2 0 0 5 Mn 51 (Mechanics)5 (Foreign Lang. 0 or Economics)...3 0 3 Mn 52 (Mechanics)5 5 0

15 12 20

16 8 20

SENIOR YEAR

Fall Semester		Spring Semester			
Subject	Hour	S	Subject	Hour	S
R	ec. Lab.	Cr.	Re	c. Lab.	Cr.
Ch 77 (Ind. Chem.)3	3 0	3	Ch 78 (Ind. Chem.)3	0	3
Ch 95 (Electrochem.)3	3 0	3	Ch 80 (Inspect. Trips) 0	2	1
Ch 99 (Thesis)	Arr	1	Ch 96 (Electrochem.) .3	0	3
Ee 31 (Alt. Currs.)2	2 0	2	Ch 100 (Thesis)	Arr	2
Ee 33 (Elec. Lab.)() 3	11/2	Eh 10 (Modern Lit.)2	0	2
Eh 5 (Tech. Comp.)	2 0	2	Me 76 (Mech. Lab.)0	3	11/2
Gm 15 (Sci. German or			Me 98 (Management)2	0	2
Bc 3 (Economic Geol.) 2	2 0	2			
Me 83 (Heat. Eng.)	3 0	3			
				-	
1.	5 3	171/2	10	5	141/2

Students in Chemistry and Chemical Engineering are expected to demonstrate that they have a reading knowledge of French and German. Students who receive entrance credit in both elementary and intermediate German are expected to take elementary and intermediate French and Scientific German. Students who receive entrance credit in elementary and intermediate French are expected to take elementary, intermediate, and Scientific German. Students receiving entrance credit in both elementary French and German are expected to take intermediate and Scientific German. Students receiving entrance credit in both elementary French and German are expected to take intermediate and Scientific German. Students receiving entrance credit for two, three, or four years of Latin as their only foreign language credit and all others will be treated as special cases.

Option I. Paper and Pulp Curriculum

FRESHMAN YEAR

Common to all engineering courses and Chemistry. See page 170.

COLLEGE OF TECHNOLOGY

SOPHOMORE YEAR

Fall Semester			Spring Semester				
Subject	Hours		'S	Subject He	Hours		
	Rec.	Lab	. Cr.	Rec. I	Lab. Cr.		
Bl 43 (Wood Ident.)	.0	3	-1	Ch 40 (Quan. Anal.)1	8 4		
Ch 31 (Qual. Anal.)	.2	9	5	(Foreign Lang.			
Ch 37 (Hist. Chem.)	.1	0	1	or Economics)5	0 5		
(Foreign Lang.).	.5	0	5	Me 24 (Eng. Calcs.)1	0 1		
Ms 7 (Diff. Calculus).	.5	0	5	Me 28 (Kinematics)2	0 2		
Mt 3 (Military)	.2	1	2	Ms 8 (Int. Calculus)5	0 5		
Pb 1 (Pub. Speak.)	.2	0	2	Mt 4 (Military)2	1 2		
Pt 3 (Phy. Education)	.0	2	0	Ps 54 (Elec. Meas.)0	6 3		
			-	Pt 4 (Phy. Education) 0	2 0		
	17	15	21	16	17 22		

JUNIOR YEAR

.

Ch 51 (Organ. Chem.)3	4	5	Ch 52 (Organ. Chem.) 3	4	5
Ch 65 (Pulp Tech.)2	0	2	Ch 66 (Paper Tech.)2	0	2
Ch 67 (Pulp Lab.)0	4	2	Ch 68 (Paper Mfg.)0	4	2
Ch 71b (Phys. Chem.)3	0	3	Ch 72b (Phys. Chem.)3	0	3
(Foreign Lang. or			Ch 74 (Phys. Ch.		
Economics)3	0	3	Methods)0	4	2
	15				

 Mn 51 (Mechanics)
5
 0
 5
 Ee 30 (Dir. Cur.
Machy.)
2
 0
 2

 Mn 52 (Mechanics)
5
 0
 5

 16
 8
 20
 15
 12
 21

SENIOR YEAR

Fall Semester	Spring Semester					
Subject H		S	Subject	Hours		
Re	c. Lab.	. Cr.		Rec.	Lab.	Cr.
Ch 75 (Cellulose)0	4	2	Ch 78 (Ind. Chem.)	.3	0	3
Ch 77 (Ind. Chem.)3	0	3	Ch 80 (Inspect. Trips)	0	2	1
Ch 87 (Paper Test.)0	4	2	Ch 82 (Paper Color.			
Ch 99 (Thesis)	Arr	1	9 wks.)	.0	8	2
Ee 31 (Alt. Currs.)2	0	2	Ch 86 (Pulp Bleach.			
Ee 33 (Elec. Lab.)0	3	11/2	9 wks.)	.0	8	2
Eh 5 (Tech. Comp.)2	0	2	Ch 100 (Thesis)	A	rr	2
Fy 9 (Forest Prod.)1	0	1	Eh 10 (Modern Lit.)	.2	0	2
Gm 15 (Sci. German or			Me 76 (Mech. Lab.)	.0	3	$1\frac{1}{2}$
Bc 3 (Economic Geol.) 2	0	2	Me 98 (Management)	2	0	2
Me 83 (Heat. Eng.)3	0	3				
	-				-	
13	11	191/2		7	21	151/2

Chemistry Curriculum

This curriculum is designed to give the student not only a thoro technical training, but also a breadth of education which will enable him readily to undertake the great variety of problems which naturally present themselves to a chemist. It differs from the Chemical Engineering curriculum in that the student takes some secondary courses having a general scientific objective instead of secondary courses of an engineering type. The curriculum is a broad one and prepares the student to teach; or for the profession of analytical or research chemist in experiment stations, food laboratories, dye, chemical, fertilizer, and tanning plants; metallurgical, rubber, and electric machinery manufactories; many branches of the government civil service; and the general consulting and analytical work of a professional chemist.

COLLEGE OF TECHNOLOGY

FRESHMAN YEAR

Common to all engineering courses and Chemistry. See page 170.

SOPHOMORE YEAR

Fall Semester				Spring Semester				
Subject	Subject Hours			Subject		Hours		
	Rec. Lab. Cr.				Rec			. Cr.
Ch 31 (Qual. Anal.)	.2	9	5	Ch	40 (Quan. Anal.).	1	8	4
Ch 37 (Hist. Chem.)	.1	0	1	Ch	48 (Mineral. &			
Eh 9 (Modern Lit.)	.2	0	2		Crys.)	1	3	2
(Foreign Lang.).	. 5	0	5		(Foreign Lang.) 5	0	5
Ms 7 (Diff. Calculus).	. 5	0	5	Ms	8 (Int. Calculus)	5	0	5
Mt 3 (Military)	.2	1	2	Mt	4 (Military)	2	1	2
Pt 3 (Phy. Education)	0	2	0	Pb	2 (Pub. Speak.).	2	0	2
				Pt	4 (Phy. Education) 0	2	()
		-	-			_	_	_
	17	12	20			16	14	20

JUNIOR YEAR

Bv	1	(Bacteriology)0	6	3	Ch 42 (Gen. App.		
Bv	3	(Bacteriology)2	0	2	Chem.)1	0	1
					Ch 52 (Organ. Chem.) 3		
		(Adv. Quant.			Ch 62 (Tech. Anal.)1		
		A f X	~				

Anal.)1 8 4 Ch 72b (Phys. Chem.)..3 3 0 Ch 71b (Phys. Chem.) ...3 0 3 Ch 74 (Phys. Ch. (Foreign Lang. or Methods)0 2 4 Economics)3 3 (Foreign Lang. 0 or Economics)...3 0 3

12 18 20

11 16 18

SENIOR YEAR

Fall Semeste	r		Spring Semester			
Subject	H	Hour	s	Subject H	our	5
	Red	. Lab	. Cr.	Rec.	Lab.	Cr.
Bc 51 (Biochem.)	3	0	3	Ch 78 (Ind. Chem.)3	0	3
Ch 77 (Ind. Chem.)	3	0	3	Ch 80 (Inspect. Trips) 0	2	1
Ch 89 (Organ. Anal.)	0	4	2	Ch 84 (Metallurgy)3	0	3
Ch 91 (Adv. Organ.				Ch 90 (Organ. Prep.)0	4	2
Chem.)	3	0	3	Ch 92 (Adv. Organ.		
Ch 99 (Thesis)	A	rr	1	Chem.)3	0	3
Eh 5 (Tech. Comp.).	2	0	2	Ch 100 (Thesis)A	rr	2
Es 55 (Business Law)	3	0	3			
Gm 15 (Sci. German or	•					
Bc 3 (Economic Geol.) 2	0	2			
	-	-				
	16	4	19	9	6	14

Civil Engineering Curriculum

The object of the curriculum in Civil Engineering is to give the student as thoro a knowledge as possible of the principles underlying the profession. It is not possible in the time usually devoted to a college curriculum to take up more than the most important technical subjects, hence the time devoted to those subjects, designed to cultivate and broaden the mind, is necessarily limited. The attempt is made, however, to give the student not only a technical education, but to form the basis for a liberal one as well.

The endeavor is made to impress upon the mind of the student that the granting of his bachelor's degree does not create him an engineer, and to make him see that he has received only the basic mental training which will fit him to follow the profession, and that he must begin at the bottom of the ladder of practice in order to obtain experience and judgment, without which he can never become a successful engineer. The methods of instruction are recitations, lectures, original problems, work in the testing laboratories, field practice, and designing. Effort is made to acquaint the student with the best engineering practice and with the standard engineering literature. During each year it is the practice to have several lectures by engineers from other institutions and by those engaged only in practical work. These lectures tend to increase the interest of the student and to bring him in touch with men from outside his own institution. During the spring semester of the senior year an inspection trip of about a week's duration is required. The students, under the guidance of their instructors, visit large industrial plants and come in contact with the actual work in many lines of engineering.

COLLEGE OF TECHNOLOGY

The work of the first year is the same for all engineering students. The technical work begins in the fall semester of the second year with field work and the study of surveying. This technical work is gradually increased, until the senior year when it is nearly all professional. At the beginning of the senior year an opportunity is offered to specialize to a certain extent along one of four lines. The first, called Option 1, consists of work in hydraulic engineering and electrical transmission; the second, Option 2, consists of work in railroad engineering; the third, Option 3, consists of work in highway engineering; while Option 4 is specialized along the lines of sanitary engineering.

FRESHMAN YEAR

Common to all engineering courses and Chemistry. See page 170.

SOPHOMORE YEAR

	Fall Semester					Spring Semester					
Subject		ect	Hours			Subject	Hours		S		
		Red	Lab.	Cr.			Rec.	Lab.	Cr.		
Ce	1	(Field Work			Ce	2 (Plotting 12					
		9 wks.)0	12	2		wks.)	0	8	11/2		
Ce	3	(Plane Survey.			Ce	4 (Surveying 6					
		9 wks.)3	0	11/2		wks. Fld. W	k.)0	9	1		
Ce	29	(San. Eng.)2	0	2	Es	2b (Prin. Econ.)2	0	2		

Es 1b (Prin. Econ.)....2 0 2 Md 4 (Adv. Mach.

2

5

2

2

0

- Md 3 (Des. Geometry)..2 0
- Ms 7 (Diff. Calculus) ... 5 0
- Mt 3 (Military)2 1
- Pb 1 (Pub. Speak.)2 0
- Pt 3 (Phy. Education) 0 2
- Draft.)0 2 6 Me 24 (Eng. Calcs.) ...1 1 0 5 Ms 8 (Int. Calculus)..5 0 2 4 (Military)2 Mt 0 Pb 4 (Debate.)2 2 0 Ps 52 (Mech. & Heat)..0 2 4
 - Pt 4 (Phy. Education) 0 2 0

18 15 18¹/₂

12 201/3 181/2

177

JUNIOR YEAR

Fall Semester		Spring Semester				
Subject F		S	Subject	Hours		
	Lab	. Cr.	Rec	. Lab.	Cr.	
As 11 (Pract. Astron.)2	0	2	Ce 20 (Founds. &			
Bc 3 (Economic			Mats. Const.)3	0	3	
Geol.)2	0	2	Ce 22 (Adv. Survey.)1	0	1	
Ce 9 (R. R. Curves)3	0	3	Ce 24 (Jun. Fld. Wk.			
Ce 21 (R. R. Field Wk.) 0	3	1	6 days)0	9	1	
Ce 23 (R. R. Office Wk.) 0	3	1	Ce 26 (Hydraulics)3	0	3	
Ch 83 (Metallurgy)3	0	3	Ce 28 (Ely. Structures) 2	3	3	
Hy 5 (Rec. History)2	0	2	Ce 30 (Hgwy. Const.).2	0	2	
Mn 51 (Mechanics)5	0	5	Ce 32 (Cemt. Lab.)0	2	1	
			Mn 52 (Mechanics)5	0	5	
	-	-				
17	6	19	16	51/2	2 1 9	

SENIOR YEAR

Ce 57 (Adv. Structures) 3	0	3	Ce 58 (Adv. Structures) 3	0	3
Ce 59 (Design.)0	9	41/2	Ce 60 (Graph. Statics)2	0	2
Ce 61 (Rd. Mats. Lab.)0	2	1	Ce 62 (Design.)0	6	3
Ce 97 (Thesis or Equal) A	rr	3	Ee 36 (Alt. Currs.)2	0	2
Ee 35 (D. C. Machy.)2	0	2	Ee 38 (Elec. Lab.)0	3	11/2
Eh 5 (Tech. Comp.)2	0	2	Es 16 (Business Law)3	0	3
Me 73 (Mech. Lab.)0	2	1	Highway Option		
Highway Option			Ce 68 (Hgwy. Design).0	4	2
Ce 53 (Hyd. Fld. Wk.)0	2	1	Ce 72 (Hgwy. Eng.)2	0	2
Ce 63 (Hgwy. & R.R.			Hydraulic Option		
Eng.)3	0	3	Ce 52 (Hyd. Eng.)0	4	2
Hydraulic Option			Me 94 (Hyd. Machy.)2	0	2
Ce 51 (Hyd. Fld. Wk.)0	4	2	Railroad Option		
Ce 55 (Hydrology)2	0	2	Ce 64 (R.R. Design)0	4	2
Railroad Option			Ce 66 (R.R. Eng.)2	0	2
Ce 53 (Hyd. Fld. Wk.)0	2	1	Sanitary Option		
Ce 63 (Hgwy. & R.R.			Bv 2 (Bacteriology)0		
Eng.)3	0	3	Ce 74 (San. Eng.)2	0	2
Sanitary Option					
Bv 3 (Bacteriology)2	0	2			
Ce 71 (Water Supply)2	0	2			
_	-				
10	15	201/2	12	14½	161/2

Electrical Engineering Curriculum

This curriculum is intended to provide the student with a thoro understanding of the underlying principles of electrical engineering and to develop an ability to solve problems of an engineering nature from commercial as well as technical premises. To accomplish this, the student first studies the various electrical laws and methods of electrical measurements and correlates them with various laws previously assimilated in the study of physics and mathematics. These studies are followed by more advanced courses involving the fundamental electrical laws and theories and showing their application to the design, operation, and performance of electrical apparatus such as is used in the generation of electrical energy or in transforming electrical energy into mechanical energy for the various commercial requirements.

Courses in telephone and radio engineering are offered to those wishing to continue work in communication engineering after graduation.

It is the endeavor of the curriculum to acquaint the student with contemporary engineering practice, and, by persistent association of abstract analysis with practical problems, to equip him with the fundamentals of successful career. Stress is laid upon the systematic reading of technical periodicals and the acquirement of a reference library. Effort is made to have lectures by active engineers and alumni following their profession, thus bringing the student into more intimate contact with the engineering world.

In addition to the purely electrical subjects, the student takes the customary work in mathematics, physics, mechanics, shop, drawing, and allied engineering courses, together with the cultural subjects enumerated below.

FRESHMAN YEAR

Common to all engineering courses and Chemistry. See page 170.

SOPHOMORE YEAR

Spring Semester Fall Semester Subject Hours Hours Subject Rec. Lab. Cr. Rec. Lab. Cr. Ee 1 (Els. Elec. Eng.)..3 0 3 Ee 2 (Els. Elec. Eng.) 3 2 4 Es 1b (Prin. Econ.)....2 0 2 Es 2b (Prin. Econ.)....2 0 2 Md 3 (Des. Geometry)..2 0 2 Md 4 (Adv. Mach. Me 23 (Eng. Calcs.)....1 0 1 Draft.)0 2 6 Ms 7 (Diff. Calculus)...5 0 5 Ms 8 (Int. Calculus)...5 5 0 2 Mt 3 (Military)2 1 2 Mt 4 (Military)2 1 Pb 1 (Pub. Speak.) 2 0 2 Pb 4 ((Debate.) 2 2 0 Ps 17 (Adv. Physics)...2 0 2 Pl 6 (Organ. Knowl-Pt 3 (Phy. Education) 0 2 0 2 edge)2 0 Pt 4 (Phy. Education) 0 2 0 11 19 19 3 19 16

JUNIOR YEAR

Ee 13	(Elec.	Test.)	.1	2	2	Ee	16	(Alt. Curr.		
Ee 15	(Elec.	Machy.)	.3	0	3			Circs.)3	0	3
								(Elec. Lab.)1		
								(\mathbf{r})	_	

Ee 22 (Ely. Comm.)....2 Eh 5 (Tech. Comp.)....2 6 0 U 6 1¹/₂ Me 10 (Mach. Work)...0 11/2 4 Me 9 (Mach. Work)....04 3 Me 84 (Heat Eng.).....3 Me 27 (Kinematics)3 3 0 0 5 Mn 52 (Mechanics)5 5 0 Mn 51 (Mechanics)5 0 3 Py 62 (App. Psychol.)..3 0

9 19

15

17 7 20

SENIOR YEAR

Spring Semester Fall Semester Hours Hours Subject Subject Rec. Lab. Cr. Rec. Lab. Cr. Ee 51 (Alt. Cur. Appar.).3 0 3 Ee 52 (Adv. Elec. Eng.) 2 2 0 Ee 61 (Illumin. Eng.)...2 0 2 Ee 54 (Tech. Reviews).0 2 1 Ee 75 (Elec. Lab.).....1 3 2¹/₂ Ee 76 (Elec. Lab.).....1 3 $2\frac{1}{2}$ Me 85 (Heat Eng.).....3 0 3 Ee 78 (Inspect. Trip) ... 0 0 0 Options Options (Four subjects (Two subjects required) required) 0 2 Ee 56 (Elec. Power Ee 63 (Elec. Rwy. Eng.).2 3 Ee 81 (Adv. Tel. Eng.)..3 0 3 $\mathbf{0}$ 3 $1\frac{1}{2}$ Ee 58 (Elec. Trans.)...3 3 Ee 83 (Tel. Lab.)....0 0 0 3 Ee 60 (Adv. Elec. Es 51 (Corp. Finance) ... 3 Machy.)2 2 3 $1\frac{1}{2}$ Me 77 (Mech. Lab.)....0 0 Ee 84 (Tel. Trans.)....3 3 0 3 Ee 86 (Radio Eng.)....3 $\left(\right)$ Ee 88 (Radio Lab.)...0 3 $1\frac{1}{2}$ Ee 90 (Thesis)Arr 3 Me 98 (Management) ...2 2 U 6 17 13 8 17 14

Mechanical Engineering Curriculum

The field of the mechanical engineer embraces all work involving the design, construction, or installation of machinery, either for manufacturing, transportation, or power generation; the design, manufacture, and installation of heating and ventilating or refrigerating equipment; the superintendence or management of factories, power plants, and motive power; the equipment of railways, and similar work.

The Mechnical Engineering curriculum is arranged to equip men as well as possible in four years' time to enter any of these lines of work.

It is not possible to develop the student into an expert engineer in any branch of the profession. It is also not possible, in general, to foresee what will be his ultimate occupation. Accordingly, those subjects which are fundamental to all engineering work and which may best be learned in college are most emphasized in the required courses, while those subjects which are best acquired in practical work are left for the engineer graduate to obtain in actual practice. An endeavor is made, however, to give the

more advanced technical courses such a trend as to make the period of adjustment of the graduate to practical engineering conditions short, and his acquirement of the knowledge necessary for advancement rapid.

The theoretical work is taught by lectures and recitations. The texts are carefully chosen and are supplemented, where necessary to illustrate more recent practice, by explanation and examples given by the instructor. Numerous problems are assigned for work outside the classroom to make sure the student can apply the principles learned.

Courses in the shops and laboratories illustrate the application of matter learned in the recitation work, and also teach methods of construction, operation, and testing of apparatus by direct contact with it. In the drawing rooms, application of theories to work in design are taught, together with methods and requirements for the production of neat and accurate engineering drawings.

Thoro instruction is given in the theory and operation of both direct and alternating current electrical machinery, with ample practice in the electrical laboratory. Sufficient time is devoted to recitation and field work in surveying to give familiarity with instruments and methods. Lectures by practical engineers and trips of inspection to engineering works help to bring before the student the conditions existing in practice.

FRESHMAN YEAR

Common to all engineering courses and Chemistry. See page 170.

SOPHOMORE YEAR

Fall SemesterSpring SemesterSubjectHoursSubjectHoursHours

Subject		IIOUIS		Subject	110015	
		Lab	. Cr.	Re	Rec. Lab. Cr.	
Ce 5	(Surveying 6 wks.			Es 2b (Prin. Econ.)2	0	2
	Fld. Wk.)0	3	1/2	Md 4 (Adv. Mach.		
Ce 7	(Plane Survey.			Draft.)0	6	2
	12 wks.)1	0	1/2	Me 2 (Pattern Work).0	6	2
Es 1b	(Prin. Econ.)2	0	2	Me 22 (Els. Mech.		
Md 3	(Des. Geometry)2	0	2	Eng.)1	0	1
Me 1	(Foundry)0	6	1	Me 38 (Mech. Lab.)0	3	11/2
Me 3	(Forging)0	6	1	Me 52 (Mats. Eng.)2	0	2
Me 23	(Eng. Calcs.)1	0	1	Ms 8 (Int. Calculus)5	0	5
Ms 7	(Diff. Calculus)5	0	5	Mt 4 (Military)2	1	2
Mt 3	(Military)2	1	2	Pb 4 ((Debate.)2	0	2
Pb 1	(Pub. Speak.)2	0	2	Pt 4 (Phy. Education) (2	0
Ps 51	(Mech. & Heat)0	4	2			
Pt 3	(Phy. Education) 0	2	0			
		-			-	
	15	20	181/2	13	18	191/2

JUNIOR YEAR

Fall Semester	Spring Semester					
Subject	Hours		Subject	Hours		
Rec	ec. Lab. Cr.		Rec	. Lab	. Cr.	
(Economics or			Eh 6 (Tech. Comp.)2	0	2	
History)3	0	3	Me 8 (Mach. Work)0	6	2	
Me 7 (Mach. Work)0	6	2	Me 56 (Valve Gears)2	3	3	
Me 55 (Kinematics)3	3	4	Me 66 (Mach. Des.)3	0	3	
Me 69 (Mech. Lab.)0	3	11/2	Me 70 (Mech. Lab.)0	3	11/2	
Me 79 (Heat Eng.)3	0	3	Me 80 (Heat Eng.)3	0	3	
Mn 51 (Mechanics)5	0	5	Mn 52 (Mechanics)5	0	5	
	_		—			
14	12	181/2	15	12	191/2	

SENIOR YEAR

Ce 35 (Hydraulics)2	0	2	Ee 36 (Alt. Currs.)2 0	2
Ce 67 (Graph. Statics)1	0	1	Ee 38 (Elec. Lab.)0 3	11/2
Ee 35 (D. C. Machy.)2	0	2	(Inspect. Trip)0 0	0
Me 71 (Mech. Lab.)0	3	11/2	Me 72 (Mech. Lab.)0 3	11/2
Me 81 (Heat Eng.)3	0	3	Me 86 (Power Plants) 3 3	4
Me 87 (Mach. Des.)0	6	2	Me 92 (Heat & Vent. or	
Me 93 (Gas Engs.)2	3	3	Me 94 (Hyd. Machy.). 2 0	2
Py 61 (App. Psychol.)3	0	3	Me 96 (Seminar)1 0	1
			Me 98 (Management) .2 0	2
			Me 100 (Thesis)Arr	3
	_			
13	12	171/2	10 9	17

Departments of Instruction

Courses designated by an odd number are given in the fall semester, those designated by an even number, in the spring semester.

Courses numbered 1-50 are for undergraduates only; courses numbered 51-100 are for graduates and undergraduates; courses numbered above 100 are for graduates.

CHEMISTRY AND CHEMICAL ENGINEERING

PROFESSOR BRAUTLECHT; ASSOCIATE PROFESSOR BRANN; ASSOCIATE PRO-FESSOR BRAY; ASSISTANT PROFESSOR WHITE; ASSISTANT PROFESSOR OTTO; MR. JENNESS; MR. CAULFIELD; DR. GILLILAND MR. OSBORN; MR. POLLOCK

1, 2. GENERAL CHEMISTRY.—This course deals with the general principles of the science and the elements of qualitative analysis. Lecture, one hour a week; recitation, one hour a week; laboratory, four hours a week. Courses 1, 2 or 3, 4 constitute the first year's work in chemistry. Four credit hours. MR. BRAUTLECHT and members of the department staff

3, 4. ADVANCED GENERAL CHEMISTRY.—A course similar to Courses 1, 2, but for students who have had a thoro course in elementary chemistry. To enroll in Courses 3 and 4 a student must, at time of registration, present his original laboratory note book in elementary chemistry, approved by and having the signature of his previous chemistry instructor and show fitness to pursue the work planned. The student must also make a satisfactory grade in a placement test. Lectures and recitations, two hours a week; laboratory, four hours a week in inorganic preparations, and elementary qualitative analysis. Four credit hours. MR. BRANN, MR. OTTO, MR. JENNESS

31. QUALITATIVE ANALYSIS.—This course includes a thoro and extended study of the general reactions of substances with their qualitative separation and identification and the examination of industrial and commercial products. Lectures and recitations, two hours a week; laboratory, nine hours a week. Five credit hours. MR. OTTO and assistants

37. HISTORY OF CHEMISTRY.—Recitation, one hour a week. One credit hour. MR. GILLILAND 40. QUANTITATIVE ANALYSIS.—An introductory course illustrating the fundamental principles of gravimetric, volumetric, and electrolysis methods. Prerequisite, Course 31. Class room, one hour a week; laboratory, eight hours a week. Four credit hours. MR. OTTO

42. GENERAL APPLICATIONS OF CHEMISTRY.—Lecture course. Not given during semester when the department gives the General Lecture Course. Lecture, one hour a week. One credit hour.

STAFF and Outside Lecturers

48. MINERALOGY AND CRYSTALLOGRAPHY.—Prerequisite, Chemistry 31. Class room, one hour a week; laboratory, three hours a week. Two credit hours. May be given in alternate years.

MR. BRAUTLECHT, MR. WHITE

51, 52. ORGANIC CHEMISTRY.—Lectures, recitations, and laboratory work. Course 31 is prerequisite. For juniors. Class room, three hours a week; laboratory, four hours a week. Five credit hours.

MR. GILLILAND, MR. OSBORN

61. ADVANCED QUANTITATIVE ANALYSIS.—A study of calibration methods, the further application of volumetric methods, etc. Course 40 is a prerequisite. Class room, one hour a week; laboratory, eight hours a week. Four credit hours. MR. BRANN, MR. POLLOCK

62. TECHNICAL ANALYSIS.—Application of gravimetric and volumetric methods of analysis to some of the more difficult problems of separation and determination, and to technical products, such as fuels, gases, and alloys. Course 61 is a prerequisite. Class room, one hour a week; laboratory, eight

hours a week. Four credit hours. MR. BRANN, MR. WHITE

65. PULP TECHNOLOGY.—A lecture course on the manufacture of pulp and the chemical engineering involved in present day pulp making. Course 40 is prerequisite. Class room, two hours a week. Two credit hours.

MR. BRAY

66. PAPER TECHNOLOGY.—A lecture course on the processes of manufacturing paper. Course 65 is a prerequisite. Class room, two hours a week. Two credit hours. MR. BRAY

67. PULP MANUFACTURE.—Laboratory work. Semi-commercial scale production of pulps, analysis of pulp makers' supplies, etc. Course 65 must be taken in conjunction. Laboratory, four hours a week. Two credit hours. Mr. Bray, Mr. Caulfield

68. PAPER MANUFACTURE.—A laboratory course in which papers of various kinds are made. Laboratory, four hours a week. Two credit hours. MR. BRAY, MR. CAULFIELD

71a, 72a. PHYSICAL CHEMISTRY.—This course is devoted to the study of some of the more important principles and methods of physical chemistry in its several branches. Lectures and recitations. Open to students who have completed Chemistry 40, Mathematics 7, 8, and Physics 1 and 2. Class room, three hours a week. Three credit hours. MR. BRANN

71b, 72b. PHYSICAL CHEMISTRY.—Similar to 71, 72a, except that the subject is treated less mathematically and is devoted more to the interests of future chemistry teachers and premedical students. Prerequisites, Chemistry 40, Mathematics, and Physics. Recitation, three hours a week. Three credit hours. MR. JENNESS

74. PHYSICO-CHEMICAL METHODS.—The purpose of this course is to illustrate the topics considered in Courses 71 and 72, as well as to furnish training in physico-chemical laboratory procedure. Determination of molecular weights; the study of solutions thru conductivity and other methods; rate of reaction and chemical equilibrium; potential and electro-motive force; calorimetry; the use of the more important instruments, such as the refractometer, polariscope, and spectroscope; etc. Laboratory, four hours a week. Two credit hours. MR. BRANN, MR. OSBORN

75. CELLULOSE.—A course in which cellulose is studied including laboratory work dealing with the characteristics and derivatives of cellulose. Laboratory, four hours a week. Two credit hours. MR. CAULFIELD

77, 78. INDUSTRIAL AND ENGINEERING CHEMISTRY AND CHEMICAL LITERATURE.—General processes of technical chemistry and selected topics, including the principal manufactured products together with general equipment and engineering procedure employed, and economic factors. Reviews and discussions of important general articles in current American, English, German, and French chemical literature. Lectures and recitations. Courses 51, 52, and 40 are prerequisites. Class room, three hours a week. Three credit hours. MR. WHITE

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79. ADVANCED TECHNICAL ANALYSIS.—This course includes the analysis of water from both the technical and sanitary viewpoint, fuel and gas, iron and steel, oils, and other industrial products of general importance with interpretation of results. Prerequisite, Course 62. Class room, one hour a week; laboratory, eight hours a week. Four credit hours.

MR. BRANN, MR. POLLOCK

80. INSPECTION TRIPS.—Local trips (32 hours) to manufacturing plants of a chemical nature are taken; also about a week's trip in and about Boston during the spring, when about twenty industrial and chemical plants are visited. A report is required. The cost of these trips for the past few years was about \$40. Boston trip, no credit; local trips, one credit hour.

MR. BRAUTLECHT, MR. BRAY, MR. WHITE

82. PAPER COLORING.—Course 75 is prerequisite. Laboratory, eight hours a week for first nine weeks. Two credit hours.

MR. BRAY, MR. CAULFIELD

84. METALLURGY.—An introductory study dealing with iron, steel, and the common metals and alloys. Class room, three hours a week. Three credit hours. MR. WHITE

86. BLEACHING OF PULP.--- A laboratory course dealing with the methods of bleaching various kinds of pulp including use of bleaching powder, of chlorine directly, electrolytic bleach production, and efficiency testing. Course 65 is a prerequisite. Laboratory, eight hours a week for last nine weeks. Two credit hours. MR. BRAY, MR. CAULFIELD

87, 88. PAPER TESTING AND ANALYSIS.—A laboratory course involving physical, microscopical, and chemical work. The work taken up is that ordinarily assigned to the chemist in a paper mill. It includes the testing of papers for bursting, tensile, folding and tearing strength, stretch, glare, opacity, degree of sizing, etc. Methods for estimating the quality and quantity of different fibres are also studied in the laboratory. Course 61 is prerequisite. Laboratory, four hours a week. Two credit hours.

MR. BRAY, MR. CAULFIELD

89. ORGANIC ANALYSIS.—Qualitative and quantitative determination in organic compounds of carbon, hydrogen, oxygen, nitrogen, sulphur, phosphorus, the halogens, etc. Courses 51, 52 and 40 are prerequisites. Laboratory, four hours a week. Two credit hours. MR. GILLILAND

90. ORGANIC PREPARATIONS.—The preparation of a large number of typical organic compounds. Courses 51, 52 are prerequisites. Laboratory, four hours a week. Two credit hours. MR. GILLILAND

91, 92. ADVANCED ORGANIC CHEMISTRY.—A course involving the general and also special topics of organic chemistry. Prerequisite, Courses 51, 52. Recitation, three hours a week. Three credit hours. MR. GILLILAND

95, 96. ELECTROCHEMISTRY.—A lecture and textbook course on the theory and general principles of the subject and its application in industrial work, including electrolytic bleach. Courses 71 and 72 are prerequisites. Recitation, three hours a week. Three credit hours. MR. WHITE

99, 100. THESIS.—The thesis will embody the result of the study of a special problem in the laboratory. It will partake of the nature of original investigation. Hours arranged. Zero to three credit hours. STAFF

101, 102. INVESTIGATIONS IN ORGANIC CHEMISTRY.—Time and credit hours arranged. MR. BRAUTLECHT OF MR. GILLILAND

103, 104. INVESTIGATIONS IN PHYSICAL CHEMISTRY. Mr. Brann

105, 106. Investigations in Pulp and Paper Chemistry and Tech-Nology. Mr. Bray

111, 112. METHODS OF TEACHING CHEMISTRY.—Course 40 is a prerequisite. Administration, supervision, costs, discipline, subject matter, questioning, the project method, tests, examinations, lesson planning, grading or scoring, high school chemistry, history of the teaching of chemistry, kinds of courses, laboratory arrangement, purchase of supplies and equipment, laboratory instruction, etc. Class room, two hours a week. Two credit hours. MR. BRAUTLECHT

Equipment obtained and receipted for by a student and not returned at the end of a course in good condition, as well as a few non-returnable supplies and a few special chemicals, will be charged to the student at cost. The supply room will be open during all laboratory periods for the obtaining of special equipment on charge slips and for replacing broken articles, or obtaining permanent equipment and special chemicals and supplies on charge slips or breakage cards. Breakage cards may be obtained only at the Treasurer's office and all students are required to have one. The unused balance is redeemable at the Treasurer's office, after obtaining clearance at the storeroom.

For courses in biological and agricultural chemistry, see the description of courses given by the Department of Biological and Agricultural Chemistry.

For chemistry courses in the summer session, see the Summer Session Bulletin.

For requirements leading to the degree of Bachelor of Arts in chemis-

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try, see College of Arts and Sciences.

CIVIL ENGINEERING

PROFESSOR SPRAGUE; ASSOCIATE PROFESSOR LYON; ASSOCIATE PROFESSOR LEAVITT; ASSISTANT PROFESSOR EVANS; MR. FELKER; MR. STEVENS

1. PLANE SURVEYING. FIELD WORK.—This course consists of practice in the use of the chain, tape, compass, transit, level, and other surveying equipment. Required of all students in the Departments of Civil Engineering and Forestry. Field work, twelve hours a week. First nine weeks. Two credit hours. MR. FELKER, MR. STEVENS

2. PLOTTING.—This course consists chiefly of map drawing from field notes, by the different methods in common use. Courses 1 and 3 are prereq-

uisite. Drawing room, eight hours a week. First twelve weeks. One and one-half credit hours. MR. FELKER, MR. STEVENS

3. PLANE SURVEYING.—Recitations and lectures covering the general theory of plane surveying, and other surveying operations; description of surveying equipment, and adjustment of instruments; use of chain, tape, compass, transit, and level. Required of all students in the Departments of Civil Engineering and Forestry. Recitation, three hours a week. Last nine weeks. One and one-half credit hours. MR. FELKER, MR. STEVENS

4. FIELD WORK IN SURVEYING.—A continuation of Course 1. This course consists of original surveys, problem work, note keeping, etc. Course 1 is prerequisite. Field work, nine hours a week. Last six weeks. One credit hour. MR. FELKER, MR. STEVENS

5. FIELD WORK IN SURVEYING.—The use of the chain, compass, transit, and level. Required of all students in the Department of Mechanical Engineering. Given in connection with Course 7, but not with Course 3. Field work, three hours a week. First six weeks. One-half credit hour. MR. LEAVITT, MR. EVANS

6. PLANE SURVEYING.—A course similar to Course 7. Given to students in the Department of Electrical Engineering. Class room, one hour a week. First twelve weeks. One-half credit hour. MR. EVANS

7. PLANE SURVEYING.—A short course similar to Course 5. Given to students in the Department of Mechanical Engineering. Class room, one hour a week. Last twelve weeks. One-half credit hour. MR. LEAVITT

8. FIELD WORK IN SURVEYING.—A course similar to Course 5. Given to students in the Department of Electrical Engineering Field work, three hours a week. Last six weeks. One-half credit hour. MR. EVANS

9. RAILROAD CURVES AND EARTHWORK.—A course of recitations and lectures investigating the geometry of railroad curves, switches, and turnouts. Also the field and office practice of staking out and computing earthwork, and the methods and materials of railroad construction, subgrade, roadbed, track and track work. Courses 1 and 3 are prerequisite. Class room, three hours a week. Three credit hours. MR. EVANS

20. FOUNDATIONS, AND MATERIALS OF CONSTRUCTION.—A course dealing with the foundations of bridges and buildings, dams, culverts, chimneys, etc.; also with the production and use of various building materials as lime, mortar, cement, concrete, building stone, brick, timber, iron. and steel. Mechanics 51 is prerequisite. Class room, three hours a week. Three credit hours. MR. STEVENS

21. RAILROAD FIELD WORK.—The survey for a railroad about two miles in length. The preliminary and location surveys are made, includ-

ing running in the curves, obtaining the topography, establishing the grade, and setting the slope stakes. Courses 4, 9 or 4, 27 are prerequisites. Field work, six hours a week. First nine weeks. One credit hour. MR. LYON

22. ADVANCED SURVEYING.—This course consists of lectures, readings, and recitations on the theory and practice of base line measurement, triangulation, precise leveling, topographical surveying, the use of the plane table, the theory and application of least squares, and map projection. It is a preparation for Course 24. Course 21 is prerequisite. Lecture, one hour a week. One credit hour. MR. LYON

23. RAILROAD OFFICE WORK.—The office work of mapping the notes taken in Course 21, including the calculation of the earth work. Courses 2, 21 are prerequisites. Drawing room, six hours a week. Last nine weeks. One credit hour. MR. LYON, MR. FELKER

24. JUNIOR FIELD WORK.—This course consists of the practical application in the field and in the office of the principles given in Course 22. Course 22 is prerequisite. Field work, nine hours a day for six days. One credit hour. All THE STAFF

26. HYDRAULICS.—Fundamental data; hydrostatics; theoretical hydraulics; instruments and observations; theoretical and actual flow thru orifices, weirs, tubes, pipes, and conduits; dynamic pressure of water. Prerequisite, Mechanics 51. Class room, three hours a week. Three credit hours. MR. LYON

27. SIMPLE CURVES AND EARTHWORK.—A lecture course on the theory and practice of simple railroad curves, and on the field and office practice of staking out and computing earthwork. Given to students outside of the Department of Civil Engineering who desire to take Courses 21 and 23. Courses 1 and 3, 5 and 7, or 6 and 8 are prerequisites. Lecture, one hour a week. One credit hour. MR. LEAVITT

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28. ELEMENTARY STRUCTURES.—The theory of the simple beam; loads and reactions; vertical shear; bending moment; influence lines. The object of this course is to give the student a drill in finding vertical shear and bending moment under different systems of loadings, and to apply the same to the design of simple beams and girders, also to familiarize him with the use of steel hand books, various tables, and the slide rule. Class room, two hours a week; drawing room, three hours a week. Three credit hours.

MR. SPRAGUE

29. SANITARY ENGINEERING.—The general principles of sewer design and construction, and sewage disposal; a study of city sanitation. Course 1, 5, or 8 is prerequisite. Class room, two hours a week. Two credit hours. MR. SPRAGUE

30. HIGHWAY CONSTRUCTION.—The construction and maintenance of city pavements and country roads under various conditions of traffic, climate, soil, etc. Courses 20, 21, and 23 are prerequisite. Recitation, two hours a week. Two credit hours. MR. LEAVITT

32. CEMENT LABORATORY.—This course consists of making the regulation commercial tests upon different samples of cement and sand. Required of students in Civil Engineering. Course 20 is prerequisite. Laboratory, two hours a week. One credit hour. MR. LEAVITT, MR. FELKER

35. HYDRAULICS.—A short course which includes the main principles given in Course 26. Given to students in the Departments of Mechanical and Electrical Engineering. Mechanics 51 is prerequisite. Class room, two hours a week. Two credit hours. MR. LYON

51. HYDRAULIC FIELD WORK.—The measurement of the flow of rivers is illustrated by the use of the current meter. The data thus obtained is used to plot the rating curves, etc. The measurements taken are reported to the U. S. G. Survey. The expenses of this course are paid by the students. Required of students taking Options 1 and 4. Course 26 is prerequisite. Field work, four hours a week. Two credit hours. MR. LYON

52. HYDRAULIC ENGINEERING.—A continuation of Course 55. The development and utilization of water power; the modern turbine; inspection of hydro-electric plants. Drawing room, four hours a week. Two credit hours. MR. LYON

53. HYDRAULIC FIELD WORK.—A short course similar to Course 51. Required of students taking Options 2 and 3. Course 26 is prerequisite. Field work, two hours a week. One credit hour. MR. LYON

55. Hydrology.—A study of stream-flow as applied to water power development; rainfall; evaporation; run-off; methods of obtaining data with a study of their use. Required of students electing Option 1. Course 26 is prerequisite. Class room, two hours a week. Two credit hours.

MR. LYON

57. ADVANCED STRUCTURES.—This course is a continuation of Course 28. It deals with the theory of stresses in framed structures, bridge trusses and roof trusses. The latter part of the course is given over to a study of statically indeterminate structures. The object of this course is to train the student in the application of the principles of mechanics to the design of structures. Class room, three hours a week. Three credit hours.

MR. EVANS

58. ADVANCED STRUCTURES.—This course is a continuation of Course 57. The study of the higher types of structures is continued. The course then takes up the design and construction of plain and reinforced concrete struc-

tures. Class room, three hours a week. Three credit hours. MR. Evans

59. DESIGNING.—This course takes up the design for some of the common types of steel structures, and the preparation of the shop drawings. Course 28 is prerequisite. Drawing room, nine hours a week. Four and one-half credit hours. MR. SPRAGUE

60. GRAPHIC STATICS.—This course includes class and drawing room work in the graphical determination of shear and bending moment, the analysis of bridge and roof trusses, a study of the deflections of beams and the determination of moment of inertia and radius of gyration of irregular shapes by graphical methods. Course 57 is prerequisite. Class room, two hours a week. Two credit hours. MR. EVANS

61. ROAD MATERIALS LABORATORY.—Physical and chemical tests of sand, gravel, stone, bituminous compounds, corrugated steel culverts, asphalt, tar, and other road materials. Course 30 and Chemistry 1 or 3, 2 or 4 are prerequisites. Laboratory, two hours a week. One credit hour.

MR. LEAVITT, MR. EVANS

62. DESIGNING.—A continuation of Course 59. Course 57 is prerequisite. Drawing room, six hours a week. Three credit hours.

MR. SPRAGUE

63. HIGHWAY AND RAILROAD ENGINEERING.—One half of the semester is devoted to the economics of railroad location and operation; the railroad corporation, its rights and limitations; traffic; operating expenses; the locomotive and its work; distance; curves; grades; etc. The other half semester is devoted to highway management and economics; state highway commissions, their functions and divisions; highway organization, management, and legislation; economic factors of highway location and design. Required of students electing Options 2 and 3. Courses 9 and 30 are prerequisites. Class room, three hours a week. Three credit hours. MR. SPRAGUE, MR. LEAVITT

64. RAILROAD ENGINEERING.—A course in railroad design. A map reconnaissance for a railroad about twelve to fifteen miles in length is made, applying the theories of Course 63. The final line is located, profile made, grades established, and drainage areas and culverts calculated. The rails, switch points, frogs, and ties for a turnout are designed. Required of students electing Option 2. Courses 23, 63, are prerequisites. Drawing room, four hours a week. Two credit hours. MR. EVANS

66. RAILROAD ENGINEERING.—A course of lectures and recitations studying various railroad problems; structures; grade crossings and elimination; yards and terminals; signals and interlocking; maintenance and betterment work as discussed in engineering periodicals. Required of students electing Option 2. Course 63 is prerequisite. Class room, two hours a week. Two credit hours. MR. EVANS

67. GRAPHIC STATICS.—Class and drawing-room work in the graphical determination of shear and bending moment, and the analysis of roof trusses by graphical methods. Required of students in Mechanical Engineering. Class room, one hour a week. One credit hour. MR. STEVENS

68. HIGHWAY DESIGN.—Drawing room study of highway location and relocation, including plans of proposed improvement and construction of about five miles of highway with detailed estimates and specifications for the same. Also design of street intersections. Required of students electing Option 3. Course 63 is prerequisite. Drawing room, four hours a week. Two credit hours. MR. LEAVITT

71. MUNICIPAL WATER SUPPLY.—This course deals with the requirements of a community for pure drinking water. It makes a study of sources of supply, quality and purification of water; the engineering works necessary for its transportation; water borne diseases; fire service. Course 29 is prerequisite. Required of students electing Option 4. Class room, two hours a week. Two credit hours. MR. SPRAGUE

72. HIGHWAY ENGINEERING.—An advanced course of lectures and recitations on various highway problems; general survey of higher types of pavements; city planning; specifications; cost keeping; maintenance and repair work as discussed in engineering periodicals. Required of students electing Option 3. Course 63 is prerequisite. Class room, two hours a week. Two credit hours. MR. LEAVITT

74. SANITARY ENGINEERING.—Lectures and recitations dealing with the design and operation of treatment plants for sewage disposal. Course 29 is prerequisite. Required of students electing Option 4. Class room, two hours a week. Two credit hours. MR. SPRAGUE

INSPECTION TRIP.—A visiting trip of about one week's duration to various manufacturing and power plants. Required of seniors.

97. THESIS WORK.—The study of and report upon some original investigation or design. *Time to be arranged*. See regulations regarding degrees. *Zero to three credit hours*. MR. SPRAGUE

ELECTRICAL ENGINEERING

PROFESSOR BARROWS; PROFESSOR HILL; ASSOCIATE PROFESSOR CREAMER; ASSISTANT PROFESSOR ROBERTS; MR. CRABTREE; MR. BOWDEN

1, 2. ELEMENTS OF ELECTRICAL ENGINEERING.—Fundamental laws and principles of electricity; series and parallel circuits; the magnetic circuit; dielectric circuit; conduction thru electrolytes and gases; thermionics; electrical instruments; electrical measurements. Recitations and problems. Fall semester: class room, three hours a week. Three credit hours. Spring semester: class room, three hours a week; laboratory, two hours a week. Four credit hours. MR. CRABTREE

13. ELECTRICAL TESTING.—Electrical tests. Instrument calibration and other electrical measurements fundamental to electrical engineering. Application of Course 1 and 2. Course 2 is prerequisite. Class room, one hour a week; laboratory, two hours a week. Two credit hours. MR. CRABTREE

15. ELECTRICAL MACHINERY.—Application of the laws studied in Courses 1 and 2 to fundamental design problems common to all types of electrical machinery. Theory, construction, and application of direct-current generators and motors. Lectures, recitations, and problems. Course 2 is prerequisite. Class room, three hours a week. Three credit hours.

MR. HILL

16. ALTERNATING CURRENT CIRCUITS.—Graphical and analytical methods of dealing with alternating voltages, currents, and fluxes. Theory of circuits containing resistance, inductance, and capacitance. Introduction to polyphase systems and the measurement of three-phase power. Lectures, recitations, and problems. Course 15 is prerequisite. Class room, three hours a week. Three credit hours. MR. HILL

17, 18. ELECTRICAL LABORATORY.—Electrical measurements; operation and testing of direct-current generators and motors. Introductory experiments of alternating-current circuits and machines. Application of the work of Courses 1, 2, 15 and 16. Course 2 is prerequisite; Courses 15 and 16 are concurrent. Class room, one hour a week; laboratory, three hours a week.

Two and one-half credit hours. MR. ROBERTS, MR. CRABTREE

22. ELEMENTARY COMMUNICATION.—Principles of telephone apparatus; the subscribers' set; common battery and local battery circuits; central office equipment and circuits. The work is descriptive and non-mathematical. Lectures and recitations. Course 2 is prerequisite. Class room, two hours a week. Two credit hours. MR. CREAMER

30, 35. DIRECT CURRENT MACHINERY.—Electrical principles and applications; the production, distribution, and utilization of power from the standpoint of the mechanical and chemical engineer. Recitations and problems. Class room, two hours a week. Two credit hours.

MR. BARROWS, MR. CRABTREE 31, 36. ALTERNATING CURRENTS.—Alternating current measurements and calculations; operation of generators and motors. Lectures, recitations, and problems. Course 30 or 35 prerequisite. Class room, two hours a week. Two credit hours. MR. ROBERTS

33, 38. ELECTRICAL LABORATORY.—These courses are based on Courses 30, 31, 35, and 36. Operations of direct current and alternating current generators and motors; electrical power measurements. Course 30 or 35 prerequisite. Course 31 or 36 concurrent. Laboratory, three hours a week. One and one-half credit hours. MR. ROBERTS

51. ALTERNATING CURRENT APPARATUS.—Continuation of Course 16. Theory, construction, and operating characteristics of alternating current apparatus and machinery. Polyphase apparatus; generation, distribution, and utilization of polyphase power. Lectures, recitations, and problems. Course 16 is prerequisite. Class room, three hours a week. Three credit hours. MR. BARROWS

52. ADVANCED ELECTRICAL ENGINEERING.—Advanced electrical theory and operation of alternating current systems. Problems involving previous courses of the curriculum. Lectures, recitations, and problems. Course 51 is prerequisite. Class room, two hours a week. Two credit hours.

MR. BARROWS

54. TECHNICAL REVIEWS.—A study of some special phase of electrical engineering and the presentation of it to the class. Course 51 is prerequisite. Laboratory, two hours a week. One credit hour. MR. BARROWS

56. ELECTRICAL POWER PLANTS.—Electrical equipment of power plants, methods of control, switching, protection, lightning arresters; arrangement of station and substation machinery, apparatus, and switchboards. Lectures and recitations. Courses 15, 16, and 51 are prerequisites. Class room, three hours a week. Three credit hours. MR. BARROWS

58. Electrical Power Transmission.—Theory, design, and operation

of power transmission systems. Calculation of circuits, wire spans, and supporting structures. Use of hyperbolic functions, equivalent circuits, and circle diagrams. Problems of inductive interference, insulation, protection, stability, and control. Lectures, recitations, and supervised problem work. Courses 16 and 51 are prerequisites. Class room, three hours a week. Three credit hours. MR. HILL

60. ADVANCED ELECTRICAL MACHINERY.—An advanced study of the theory of electrical machinery and its application to the analysis of some of the more difficult problems of operation and design. General methods of procedure in design calculations. Typical examples of modern practice in specification and construction. Lectures, recitations, and problems. Courses 15, 16, and 51 are prerequisites. Class room, two hours a week. Two credit hours. MR. HILL

61. ILLUMINATING ENGINEERING.—Different types of lamps; light, photometry, illumination calculations, and problems of interior and exterior

illumination. Lectures, recitations, and problems. Course 16 is prerequisite. Class room, two hours a week. Two credit hours. MR. BARROWS

63. ELECTRIC RAILWAY ENGINEERING.—Preliminary considerations in electric railway engineering; principles governing selection of equipment and design of systems for urban, interurban, and trunk-line roads; engineering and economic problems involved in steam railway electrification. Lectures, recitations, and problems. Courses 15 and 16 are prerequisites. Course 51 is concurrent. Class room, two hours a week. Two credit hours. MR. HILL

75, 76. ELECTRICAL LABORATORY.—Alternating-current instruments and measurements; experimental work on single-phase circuits and polyphase systems. Operation and testing of alternating-current generators, motors, transformers. and converts. Courses 15, 16, 17, and 18 are prerequisites. Courses 51 and 52 are concurrent. Class room, one hour a week; laboratory, three hours a week. Two and one-half credit hours.

MR. HILL, MR. ROBERTS

78. INSPECTION TRIP.—About a week's trip visiting some of the electrical and industrial plants of New England. MR. BARROWS

81. ADVANCED TELEPHONE ENGINEERING.—Theory of apparatus; modern laboratory tests; recent developments. Lectures, recitations, problems, and quizzes. Course 22 is prerequisite. Class room, three hours a week. Three credit hours. MR. CREAMER

83. TELEPHONE LABORATORY.—Efficiency of telephone apparatus; use of the standard cable; local and common battery sets; phantom circuits; filters; speech transmission tests. Course 22 is prerequisite. Course 81 is concurrent. Laboratory, three hours a week. One and one-half credit hours. MR. CREAMER

84. TELEPHONE TRANSMISSION.—Application of hyperbolic functions to transmission line problems; transmission of speech over cable and open wire circuits; loaded lines; design of artificial lines. Recitations and problems. Course 81 is prerequisite. Class room, three hours a week. Three credit hours. MR. CREAMER

86. RADIO ENGINEERING.—Detailed study of inductance coils, condensers, and resistors for radio frequencies; vacuum tube theory; extended analysis of oscillatory circuits and methods of excitation; radiation and transmission phenomena; comparisons of methods of transmission and reception; theory of modulation; radio measurements. Lectures, recitations, and design problems. Course 22 is prerequisite. Class room, three hours a week. Three credit hours. MR. CREAMER

88. RADIO LABORATORY.—Use of wave-meters; tube-characteristics; audio- and radio-frequency amplifiers; tests of tube transmitters and receivers; continuous wave and radiophone transmission at various frequencies; radio directionals. Course 83 is prerequisite. Course 86 is concurrent. Laboratory, three hours a week. One and one-half credit hours.

MR. CREAMER

90. THESIS WORK.—The study of and report upon some original investigation or design. *Time to be arranged*. See regulations regarding degrees. *Zero to three credit hours*.

MR. BARROWS, MR. HILL, MR. CREAMER

156. ADVANCED ELECTRICAL POWER PLANTS.—Study of the latest designs and methods of central station practice. Location, parallel operation, superpower practice, and economics. Lectures, studies, and problems. Courses 52, 56, and 76 are prerequisite. Class room, two hours a week. Two credit hours. MR. BARROWS

157, 158. ADVANCED ELECTRICAL POWER TRANSMISSION.—A detailed study of the advanced theory of electric power circuits in the normal steady state and under transient and unbalanced conditions. Analysis of the performance of transmission systems, distribution networks, and connected apparatus. Engineering and economic problems of design, construction, and operation. Lectures, analytical studies, and problems. Course 58 is prerequisite. Class room, three hours a week. Three credit hours. MR. HILL

165. ADVANCED THEORY OF ELECTRICAL MACHINERY.—Analytical study of electrical machinery with emphasis on methods useful in research and development. Application of advanced mathematical and physical theory to problems of electrical and mechanical design, insulation, heat flow, ventilation, and control. Analysis of behavior in transient states, during disturbances, and under abnormal conditions of operation. Lectures, problems, seminar papers, and reviews. Course 60 is prerequisite. Course 175 is concurrent. Class room, two hours a week. Two credit hours. MR. HILL

175. ELECTRICAL LABORATORY.—Continuation of Courses 75 and 76, consisting of more advanced tests of electrical machines and circuits as related to design and development. Performance studies involving the use of the oscillograph. Course 165 is concurrent. Courses 52, 60, and 76 prerequisite. Class room, one hour a week; laboratory, three hours a week. Two and onehalf credit hours. MR. BARROWS

185. COMMUNICATION CIRCUITS.—Advanced study of substation circuits; passive networks, including filters and attenuation equalizers; transformer and transition losses; high quality circuits used as an adjunct to radio broadcasting; advances in communication from study of current technical literature. Lectures, reports, and problems. For graduate students who have specialized in electrical communication. Class room, two hours a week. Two credit hours. MR. CREAMER

188. COMMUNICATION LABORATORY.—Experimental work based on theory treated in Course 185; oscillographic study of speech sounds and modulation; detection and elimination of speech distortion in amplifiers. Course 185 is prerequisite. Laboratory, three hours a week. One and one-half credit hours. MR. CREAMER

ENGINEERING DRAFTING

PROFESSOR KENT; MR. SPARROW; MR. SLOANE

1. FUNDAMENTALS OF DRAFTING.—Instruction and practice in technical sketching and lettering, in the care of drawing instruments, and their use in elementary problems involving right lines, circles, irregular curves, and orthographic projections. Drawing room, four hours a week. Two credit hours. MR. KENT, MR. SPARROW, MR. SLOANE

2. ELEMENTARY MACHINE DRAFTING.—A continued study of the methods of orthographic projection, isometric projection, and oblique projection, accompanied by instruction and practice in the making of working drawings and tracings. Drawing room, four hours a week. Two credit MR. KENT, MR. SPARROW, MR. SLOANE hours.

3. DESCRIPTIVE GEOMETRY.—The elementary principles and problems of descriptive geometry, including intersections and developments. Recitation and drawing room, six hours a week. Two credit hours.

MR. KENT, MR. SPARROW, MR. SLOANE

4. ADVANCED MACHINE DRAFTING.—A continued study of the making of working drawings of simple machines, together with instruction and practice in blueprinting. Drawing room, six hours a week. Two credit MR. KENT, MR. SPARROW, MR. SLOANE hours.

9, 10. AGRICULTURAL DRAFTING.—A course designed especially for students in Agriculture and for others who are not engineers. It combines the fundamental principles of Courses 1 and 2. Drawing room, three hours a week. One credit hour. MR. KENT

LECTURE COURSES

Oc 2, 1. THE OUTLINE OF CIVILIZATION.—A course open to a selected group of juniors in the College of Technology. For description, see General Courses page

Tc 2. APPLIED ENGINEERING.—A general lecture course, open to seniors in the College of Technology and given Thursday afternoons at 4:15 thruout the second semester, consisting of addresses by engineers, business and professional men. One credit hour.

MECHANICAL ENGINEERING

PROFESSOR SWEETSER; ASSISTANT PROFESSOR WATSON; ASSISTANT PROFESSOR PRAGEMAN; MR. DAVEE; MR. PERKINS; MR. WILLEY

1. FOUNDRY WORK.—Foundry instruction is given in bench and floor molding, mixing of materials, core making, operation of cupolas, etc. Shop work, six hours a week. First nine weeks. One credit hour. MR. DAVEE

2. PATTERN WORK.—Graded exercises in woodworking designed to make the student familiar with tools used in modern woodworking practice, and to give him experience in working from dimensioned drawings. Pattern work, consisting of the making of complete patterns and core boxes from drawings. Shop work, six hours a week. Two credit hours.

MR. DAVEE

3. FORGE WORK.—Forging; welding; tool dressing. Shop work, six hours a week. Last nine weeks. One credit hour. MR. DAVEE

7, 8. MACHINE WORK.—A small piece of machinery is manufactured which involves a study of the principles and operation of the various machine tools, at the same time including an insight into that phase of manufacturing which requires one part to fit another properly and the entire machine to be readily assembled. Shop work, six hours a week. Two credit hours. MR. PERKINS

9, 10. MACHINE WORK.—A shorter course than 7, 8, for electrical engineers. Shop work, four hours a week. One and one-half credit hours. MR. PERKINS

22. ELEMENTS OF MECHANICAL ENGINEERING.—A course of lectures, designed to familiarize the student with the mechanical apparatus of manufacturing and power plants. Class room, one hour a week. One credit hour. MR. SWEETSER

23, 24. ENGINEERING CALCULATIONS.—A course for sophomores only, designed to familiarize them with the use of the slide rule and mathematical tables. Numerous problems are introduced involving the knowledge of elementary formulae and constants used in engineering practice. Mathematics 1, 3, and 6 are prerequisites. Recitation, one hour a week. One credit hour. MR. SWEETSER, MR. WATSON, MR. PRAGEMAN, MR. WILLEY

27. KINEMATICS.—A shorter course than 55, arranged for electrical engineers. Recitation, three hours a week. Three credit hours.

MR. PRAGEMAN, MR. WILLEY

28. KINEMATICS.—A shorter course than 27, given to chemical engineers. Recitation, two hours a week. Two credit hours. MR. WILLEY

38. MECHANICAL LABORATORY.—Elementary experimental work such as calibration of instruments, use of steam and gas engine indicators, mechanical efficiency tests, etc. Laboratory, three hours a week. One and one-half credit hours. MR. WATSON, MR. WILLEY

52. MATERIALS OF ENGINEERING.—Properties of the metals; timber; rope; protective coatings and preservatives. Class room, two hours a week. Two credit hours. MR. SWEETSER, MR. PRAGEMAN

55. KINEMATICS.—A study of motion, velocity, and acceleration of machine parts, supplemented by drawings of cams, gear teeth, and graphical studies of kinematical problems. Class room, three hours a week; drawing room, three hours a week. Four credit hours. MR. PRAGEMAN

56. VALVE GEARS.—A study of the principal steam engine valve motions; construction and use of valve diagrams; solution of practical problems in the drawing room. Class room, two hours a week; drawing room, three hours a week. Three credit hours. MR. PRAGEMAN, MR. WILLEY

66. MACHINE DESIGN.—A study of the design of machines; proportioning of parts for strength, rigidity, etc. Mechanics 51 is prerequisite. Recitation, three hours a week. Three credit hours. MR. PRAGEMAN

69. MECHANICAL LABORATORY.—Thermal efficiency and economy tests of steam engines, steam turbines, and gasoline engines; valve setting, steam calorimetry, etc. Laboratory, three hours a week. One and one-half credit hours. MR. WATSON, MR. WILLEY

70. MECHANICAL LABORATORY.—Tests of materials, heating value of liquid fuels, heat balance tests of steam and gasoline engines. Laboratory, three hours a week. One and one-half credit hours.

MR. WATSON, MR. WILLEY

71, 72. MECHANICAL LABORATORY.—Tests of condensers, boilers, air compressors, fans, hydraulic testing. Laboratory, three hours a week. One and one-half credit hours. MR. WATSON, MR. WILLEY

73. MECHANICAL LABORATORY.—A course arranged for students in Civil Engineering. Testing of strength of materials; measurement of flow of water over weirs, thru orifices and nozzles; calibration of venturi meters. Laboratory, two hours a week. One credit hour.

MR. WATSON, MR. PRAGEMAN

76. MECHANICAL LABORATORY.—A course arranged for students in Chemical Engineering. Calibration of instruments; tests of engines; measurement of flow of water; tests of lubricants. Course 83 is prerequisite. Laboratory, three hours a week. One and one-half credit hours.

MR. WILLEY

77. MECHANICAL LABORATORY.—A course arranged for students in Electrical Engineering. Calibration of instruments; testing strength of materials; testing of steam engines, gas engines, hydraulic testing. Course 84 is prerequisite. Laboratory, three hours a week. One and one-half credit hours. MR. WATSON, MR. WILLEY

79. HEAT ENGINEERING.—Laws of thermodynamics; laws of gases, saturated and superheated vapors; Carnot's, Rankine's, and actual steam engine cycles; use of steam tables; steam calorimetry; illustrative practical problems. Mathematics 8 and Physics 1 and 2 are prerequisites. Recitation, three hours a week. Three credit hours. MR. WATSON

80. HEAT ENGINEERING.—Simple and compound steam engines, flow of steam; air compressors; flow of air; refrigeration. Course 79 is pre-requisite. Recitation, three hours a week. Three credit hours.

MR. WATSON

81. HEAT ENGINEERING.—A continuation of Courses 79 and 80 dealing with steam turbines; considerations affecting the design and efficiency of operation of the various types. Recitation, three hours a week. Three credit hours. MR. SWEETSER

83. HEAT ENGINEERING.—A short course for chemical engineers covering the laws of thermodynamics and their application to heat motors, air compressors, refrigerating machinery, and power plant equipment. Recitation, three hours a week. Three credit hours. MR. WILLEY

84. HEAT ENGINEERING.—A course similar to Course 79, given to electrical engineers. Recitation, three hours a week. Three credit hours. Mr. WATSON, Mr. WILLEY

85. HEAT ENGINEERING.—Simple and compound steam engines; steam turbines; gas engines; gas producers; fuels and combustion; steam and gas power plant equipment and operation. For students in Electrical Engineering. Course 84 is prerequisite. Recitation, three hours a week. Three credit hours. MR. WATSON, MR. WILLEY

86. POWER PLANTS.—Fuels and combustion; types, operation, and arrangement of power plant equipment; design, costs, operating expenses, and economics of steam and gas power plants. Course 81 is a prerequisite. Class room, three hours a week; drawing room, three hours a week. Four credit hours. MR. SWEETSER, MR. PRAGEMAN 87. MACHINE DESIGN.—A continuation of Course 66, including the execution of the design of some typical machines. Courses 55 and 66 are prerequisites. Drawing room, six hours a week. Two credit hours.

MR. PRAGEMAN

92. HEATING AND VENTILATION.—Heat resistance of building materials, calculation of heat losses thru various types of walls, windows, etc., heating systems, ventilating systems, humidification. Recitation, two hours a week. Two credit hours. MR. SWEETSER

93. GAS ENGINES.—Types, operation, fuels and combustion, carburetion, governing, determination of cylinder sizes for given fuel and horsepower and of flywheel weights for given regulation. Courses 79 and 66 are prerequisite. Class room, two hours a week; drawing room, three hours a week. Three credit hours. MR. SWEETSER, MR. PRAGEMAN

94. HYDRAULIC MACHINERY.—Hydraulic turbines; water wheels; various features of hydraulic power plant development. Recitation, two hours a week. Two credit hours. MR. Sweetser

96. SEMINAR.—Preparation, presentation, and discussion of papers on leading engineering topics. Recitation, one hour a week. One credit hour. MR. SWEETSER

98. FACTORY ORGANIZATION AND MANAGEMENT.—Lectures and assigned reading bearing upon various types of organization for industrial enterprises; planning and equipping of factory plants; systems of management; factory design and construction. Recitation, two hours a week. Two credit hours. MR. PRAGEMAN

101 or 102. METALLOGRAPHY.—Polishing, etching, and a microscopic study of the crystalline structure of metals. A study of the effect of heat treatment on the crystalline structure and physical properties of steel. Class room, one hour a wcek; laboratory, four hours a wcek. Three credit hours. MR. SWEETSER

INSPECTION TRIP.—A visiting trip of one week's duration to various manufacturing and power plants. This trip is open only to seniors who are eligible for graduation. The expense to each student is in the neighborhood of fifty dollars. A complete schedule of the trip is prearranged and a member of the department staff is in charge of the party.

100. THESIS.—The results of some original investigation or design presented in proper form. The subject should be selected early in the fall semester of the senior year. See regulations regarding degrees. Laboratory, six hours a week. Three credit hours. MR. Sweetser

MECHANICS

PROFESSOR WESTON

51, 52. MECHANICS.—The fundamental principles of statics, kinematics, and kinetics, with applications to practical problems; exercises in finding center of gravity and moment of inertia; the study of stresses and strains in bodies subject to tension, compression, and shearing; the common theory of beams, including shearing force, bending moment, and elastic curves; torsional stresses and theories of stress in long columns. *Five credit* hours.

101, 102. ADVANCED MECHANICS.—General principles of kinematics, statics, and kinetics; the mathematical theory of elasticity; the theory of the potential function with applications to problems in gravitation, hydromechanics, etc. *Three credit hours*.

MILITARY SCIENCE AND TACTICS

MAJOR OLIVER; CAPTAIN STEWART; CAPTAIN VERMETTE; LIEUT. MCKEE; SERGEANT OGILVIE; SERGEANT DONCHECZ

Military instruction is required by law. The department is in charge of an officer of the regular army, detailed by the President of the United States, as Professor of Military Science and Tactics. The course maintained is that of an Infantry Unit of the Reserve Officers' Training Corps, the purpose of which is to train officers for infantry. The students are organized into an infantry battalion, including band, officered by cadets selected for character, soldierly bearing, and military efficiency. Instruction is carried on under rules and regulations prescribed by the Secretary of War in accordance with law.

Uniforms, (except shoes) arms, and equipment of the latest model of the U. S. Army, are furnished by the government.

Each student is required to have a pair of regulation shoes, and to insure uniformity, as well as reduce the cost to the minimum, he is required to secure these from the University. They are issued with the uniform, become the student's property, and the cost is deducted from his military deposit. These shoes are purchased direct from the manufacturers and are charged to the student at cost.

The uniform prescribed is as follows:

For cadet commissioned officers, the olive-drab service uniform pre-

scribed for infantry officers of the United States Army, except that "R.O.T.C." and "Maine" insignia are used; for other than commissioned officers, the olive-drab service uniform prescribed for enlisted men of the United States Army, except that "R.O.T.C." and "Maine" insignia are used. Cadets are required to wear the uniform when on military duty.

In the following schedule of courses, numbers 1 to 4, inclusive, are required of all physically fit male freshmen and sophomores, except students in the Two-Year Course in Agriculture. Courses 5 and 6 are elective for juniors; and Courses 7 and 8 are elective for seniors. The required courses cover two years' instruction as laid down in War Department regulations. The elective courses also cover two years, and once entered upon become a prerequisite for graduation. Having completed Courses 1 to 4, inclusive, students electing to continue their military training who comply with the requirements of law and regulations are entitled to money commutation of subsistence at a rate fixed by the Secretary of War.

MILITARY SCIENCE

Three percent of the total number of students who on March 1st of each year are enrolled in the second year of the Advanced Course (Mt 7 and 8), may be designated by the institution as honor graduates. The term "honor graduate" is understood to apply to a graduate whose attainments in scholarship have been so marked as to receive the approbation of the head of the University and whose proficiency in military training and intelligent attention to duty have invited the approbation of the professor of military science and tactics.

The general object of the courses of instruction of the Reserve Officers' Training Corps is to qualify students for positions of leadership in time of a national emergency.

The basic course includes those subjects necessary to qualify the student to perform the duties of a non-commissioned officer of the lowest grade of the branch in which he is trained. The first year of the course includes those subjects appropriate to training of the student in the duties of a private.

The object of the advanced course is to qualify for a commission in the Officers' Reserve Corps a limited number of students who have completed the basic course and who have demonstrated exceptional qualities of leadership. The first year of the course should prepare the student to derive the maximum benefit from the advanced R.O.T.C. camp.

The completion of the first three years of the course should qualify the student to perform, with reasonable efficiency, the duties of a non-commissioned officer of the highest grade. Graduates of the four years' course including the advanced camp should be reasonably qualified to perform the duties of a second lieutenant of infantry.

Courses of instruction outlined below have been arranged in progressive order.

BASIC COURSE

Freshman year, Courses 1 and 2; sophomore year, Courses 3 and 4.

ADVANCED COURSE

Junior year, Courses 5 and 6; senior year, Courses 7 and 8.

BASIC COURSE—THREE HOURS A WEEK

- 1. MILITARY TRAINING-
 - The National Defense Act and the R.O.T.C.: (a) Orientation of the student in the provisions of the National

Defense Act and the mission of the R.O.T.C. in the military system provided in the Act.

General outline of the organization of the R.O.T.C. and the objectives of the R.O.T.C. course; institutional regulations governing the conduct of the unit.

Military Courtesy and Discipline: To inculcate respect for, and **(b)** loyalty to constituted authority; instruction in selected extracts from the regulations; and lectures, demonstrations, and practical application.

Instruction to be extended in connection with the course in Drill and Command.

- Military Hygiene and First Aid: Instruction in personal hy-(c) giene, first aid, and prevention of disease.
- Drill and Command: Theoretical and practical instruction to (d) qualify the student to participate as a private in close and extended order drill, physical drills and ceremonies and to inculcate precision, soldierly bearing, and the spirit of discipline.
- 2. MILITARY TRAINING-
 - Rifle Marksmanship: Practical instruction and training with a (a) view to forming proper shooting habits and methods preliminary to and during small bore firing, nomenclature, care and cleaning of the rifle.
 - Scouting and Patrolling: Theoretical and practical instruction (b) in the duties of a member of a patrol and a scout in small tactical exercises.
 - (c) Drill and Command: Continuation of Course 1 (d).
- 3. MILITARY TRAINING-

- - Scouting and Patrolling: Theoretical and practical instruction (a) covering the conduct of patrols and the duties of scouts and patrol leaders. Applicatory exercises using maps, sand table, and terrain with a view to the practical training of the student in the duties of a patrol leader.
 - Automatic Rifle: Practical instruction in mechanical function-(b) ing, positions, and combat use of the automatic rifle.
 - Drill and Command: Review of first year course (Mt 1 and 2). (c) Additional theoretical and practical instruction to qualify the student to perform the duties of a squad leader in close and extended order drill, in ceremonies, and physical drill.
- 4. MILITARY TRAINING-
 - Musketry: Theoretical and practical instruction covering small (a) problems and exercises in musketry using sand table, landscape

targets, and terrain with a view to training the student in conducting the fire of a squad.

- (b) Combat Principles: Theoretical instruction covering combat principles of the rifle squad. Practical instruction on varied ground with a view to training the student to lead a squad in attack and defense and on security missions.
- (c) Drill and Command: Continuation of Course 3 (c).

ADVANCED COURSE—FIVE HOURS A WEEK

5. MILITARY TRAINING-

- (a) Map Reading and Military Sketching: Theoretical instruction necessary to qualify the student to read military maps with facility and prepare them for practical work in sketching, visibility of points and areas; practice in making simple road and position sketches.
- (b) Machine Gun: Theoretical knowledge of the capabilities of the weapon, the theory of machine gun fire, machine gun mathematics, use of instruments, direct and indirect laying, and combat principles. Practical application with a view to preparation of the student for machine gun firing at camp and training him to act as a squad and section leader in drill and combat. Instruction to cover determination of fire data and methods and means of fire control in direct laying, stripping and assembling the gun, commands going into and out of position on varied ground, and so much of indirect laying as will acquaint student with methods of obtaining firing data for guns controlled singly. Drill and Command: A review of the previous drill and com-(c) mand courses and additional theoretical and practical instruction to qualify the student to perform the duties of a sergeant of all grades in close and extended order drills, ceremonies and physical drill, and to act as an instructor of basic students at practical drill.

- 6. MILITARY TRAINING-
 - (a) Machine Gun: Continuation of Course 5 (b).
 - (b) The 37 mm Gun and 3 inch Trench Mortar: Theoretical knowledge of the capabilities of the weapon, care and cleaning, mechanism, technique of direct and indirect laying of 37 mm gun, technique of 3 inch Trench Mortar fire, combat principles of the two weapons. Practical application with a view to

preparation of student for firing at camp and to training him to act as member of a squad and as squad leader in drill and combat. Instruction to cover the determination of fire data, methods and means of fire control, fire orders, field stripping and assembling, going into action and out of action.

- (c) Combat Principles: Theoretical instruction covering combat principles of a Rifle section and platoon. Application of principles taught to tactical situations by means of map problems, sand table or relief map exercises, and exercises on varied ground with a view to training the student in duties of the several grades of rifle company N.C.O.'s. in combat and service of security.
- (d) Drill and Command: Continuation of Course 5 (c).
- 7. MILITARY TRAINING-
 - (a) Combat Principles: Theoretical instruction covering combat principles of the rifle company, machine gun company, howitzer company and battalion in attack and defense. Applicatory exercises on map, sand table or relief map and terrain. Elementary instruction in infantry signal communications.
 - (b) Field Engineering: Elements of Field Engineering to include: standard types of field works, organization of working parties and tasks, selection of location of trenches, concealment and camouflage applied to infantry, stream crossing expedients.
 - (c) Drill and Command: A review of the previous drill and command course and additional practical instruction to qualify the student to perform the duties of platoon and company commanders and instructors of basic students in close and extended order drills, ceremonies, and physical drills; especial attention to the development of leadership qualities and methods of instructing and handling men.

- 8. MILITARY TRAINING-
 - (a) Military History and Policy: Reference study of available publications on the outlines of the history of the wars of the American Republic and illustrative campaigns and battles; evolution of the military policy of the United States.
 - (b) Administration: To acquaint the student with the administrative problems of a Company Commander, and regulations governing company administration. Conferences and practical work on the following: Morning report, sick report, duty roster, company fund, military correspondence, orders, company

discipline, property, messing, company sanitation and care of men.

- (c) Military Law and Officers' Reserve Corps Regulations: To give the student a general knowledge of procedure of courtsmartial and of military law to which he will be subject when called into active service as a reserve officer. To acquaint the student with the conditions of service in the Organized Reserve.
- (d) Drill and Command: Continuation of Course 7 (c).

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PHYSICAL EDUCATION AND ATHLETICS

PROFESSOR KENT

Men's Division

PROFESSOR BRICE; PROFESSOR JENKINS; ASSOCIATE PROFESSOR WALLACE; MR. KENYON

The organization of this department has been planned to give the student such experience and instruction as will enable him to establish habits of recreation which will serve to promote healthful physical activity while in college and in his life after graduation. Especial emphasis will be placed upon athletics and out-of-door recreational exercises rather than routine work in the gymnasium, altho the latter will be utilized during cold weather.

In addition to these viewpoints, that of individual instruction in hygiene will be continually kept in mind. As additional information the following statement concerning athletics may be valuable.

Athletics for men are under the supervision of the Athletic Board, composed of members of the faculty, alumni, trustees, and students; and students paying the regular tuition fee are admitted to all contests held on Alumni Field. Teams are maintained in football, cross-country, relay, basketball, track, tennis, and baseball. The management of athletics is in the hands of a faculty manager who carries out the policies of the Athletic Board.

Physical education credit is given men playing on class or varsity teams.

1, 2. PHYSICAL TRAINING.—Required of all freshmen. Setting up exercises, corrective exercises, supervised mass games, elementary apparatus work. Two hours a week.

3, 4. PHYSICAL TRAINING.—Required of all sophomores. Practical class work consists of volley ball, soccer, and baseball during the fall and spring. Apparatus work in the gymnasium. Wrestling, fencing, basketball, and winter sports during the winter. Two hours a week.

5, 6. PHYSICAL EDUCATION.—An elective course for students who intend to coach. First aid and massage, practice teaching of games supplemented by outside reading on physical education and hygiene. Three hours 2 week.

Women's Division

DIRECTOR LENGYEL, MISS ROGERS

It is the purpose of this department to develop good physical condition among college women by providing opportunity for the formation of wholesome habits, and for relaxation and recreation.

A medical examination by a woman physician and a physical examination by the director of physical education are given each entering student during Freshman Week, and thereafter as often as seems advisable. These are intended: to assist in the placement of the student with reference to her college program in the light of her physical ability and limitations; to inform the student as to her exact physical condition, so that she can intelligently conduct her mental and physical activity; and to discover as soon as possible any organic and physical defects in order to hasten their treatment.

A new athletic field, described elsewhere in the catalog, greatly increases the facilities of the University for girls' athletics. The coaches of all sports are now placing particular emphasis on two important aspects: the physical needs of the individual, and the fun of the game. To stimulate a wholesome competitive interest on the part of the students, varsity teams are maintained in hockey, basketball, and archery, and interclass competitions are held in baseball, basketball, tennis, track, hockey, and archery.

Regulation gymnastic uniforms described elsewhere in the catalog, are required for this work.

1, 2. ELEMENTARY PHYSICAL EDUCATION.—Required of freshmen in good physical condition. Consists of postural and developmental gymnastics, and physical efficiency tests for endurance, strength, and agility. Hockey, tennis, basketball, baseball, archery, track, and winter sports may be substituted for this in season. Two hours a week.

1a, 2a. ELEMENTARY DANCING.—The elements of dancing, folk dancing, simple combination of technique, a few classic dances, and simple rhythms. *Two hours a week*.

3, 4. ADVANCED PHYSICAL EDUCATION.—Required of all sophomores in good physical condition. A continuation of Courses 1, 2, with advanced gymnastics and apparatus work, and more difficult physical efficiency tests. The sports listed above may be substituted for this in season, for the purpose of developing greater skill and accuracy, as well as providing recreation. *Two hours a week*.

3a, 4a. ADVANCED DANCING.—A continuation of Courses 1a and 2a with more advanced technique and classic dances. *Two hours a week*.

5, 6. TUMBLING.—This may be substituted for Courses 1, 2, 3, 4.

INDIVIDUAL GYMNASTICS.—Required of all freshmen and sophomores referred to the department by the medical examiner or by their family physician for special work. Prescribed exercises for body building, posture, foot work, etc. Students who are required to take this work substitute it for Courses 1, 2 and 3, 4. Two hours a week.

Teachers' Certificate Courses in Physical Education

The courses described below are for students who wish to receive a state certificate in physical education, and are credited with two points in the College of Arts and Sciences.

7. THE PRINCIPLES OF PHYSICAL EDUCATION AND HYGIENE.—An introductory course in the interpretation and objectives of physical education. Open to juniors who are preparing to teach. Three hours a week and field work.

8. PHYSICAL EXAMINATION AND MEASUREMENTS.—This course covers the purposes, management, and technique of physical examination with the exception of the determination of organic capacity for activities. Open to juniors who are preparing to teach. Three hours a week.

9, 10. METHODS FOR TEACHING PHYSICAL EDUCATION.—This course deals with the methods of teaching physical education activities thru the grades and high school. It also gives opportunity for practice teaching. Open to seniors who have passed Physical Education 7 and 8. Three hours a week and field work.

Maine Agricultural Experiment Station

COUNCIL

President HAROLD SHERBURNE BOARDMAN, C.E., Eng.D., LL.D. WARNER JACKSON MORSE, Ph.D., Sc.D. Secretary THOMAS EDWARD HOUGHTON, Fort Fairfield Committee HARMON GUSTAVUS ALLEN, Sanford of *FRANK PORTER WASHBURN, Augusta Trustees LEON STEPHEN MERRILL, M.D., Sc.D. Dean of the College of Agriculture EUGENE HARVEY LIBBY, Garland State Grange WILSON HIRAM CONANT, Buckfield State Pomological Society JOHN WINTHROP LELAND, Dover-Foxcroft State Dairymen's Association WILLIAM GEORGE HUNTON, Portland Maine Seed Improvement Association EDGAR BRACKETT LORD, W. Lebanon Maine Livestock Breeders' Association JAMES MONROE BARTLETT, Sc.D. EDITH MARION PATCH, Ph.D. ELMER ROBERT TOBEY, Ch.E. DONALD FOLSOM, Ph.D. CHARLES HENRY MERCHANT, Ph.D. PEARL STUART GREENE, M.A. FRED GRIFFEE, Ph.D. Members of the CLARENCE RITCHIE PHIPPS, M.S.

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FORREST VERN OWEN, Ph.D. WILLIAM FRANKLIN DOVE, Ph.D. AUBREY CLARE HILDRETH, Ph.D. JOHN LOW BABSON, Jr., M.S. CHARLES HARRY WHITE, Ph.C. REINER BONDE, M.S. Station Staff

*Also a member of the Council ex-officio as Commissioner of Agriculture.

STAFF

ADMINISTRATION WARNER JACKSON MORSE, Director B.S., Vermont, 1898; M.S., 1903; Sc.D., 1923; Ph.D., Wisconsin, 1912 CHARLES CLYDE INMAN, Administrative Assistant MARY NORTON CAMERON, Secretary IRVILL HARRY CHENEY, Superintendent of Highmoor Farm B.S., Maine, 1926 SILAS ONEAL HANSON, Superintendent of Aroostook Farm AGRICULTURAL ECONOMICS CHARLES HENRY MERCHANT, Head of Department B.S., Cornell, 1920; M.S., 1922; Ph.D., 1928 JOHN LOW BABSON, Jr., Associate B.S., Maine, 1924; M.S., 1927 GEORGE FARRINGTON DOW, Assistant B.S., Maine, 1927 BIOLOGY FRED GRIFFEE, Head of Department B.S., Kansas, 1919; M.S., Minnesota, 1920, Ph.D., 1924 JOHN WHITTEMORE GOWEN, Collaborating Biologist, Animal Breeding

B.S., Maine, 1914; M.S., 1915; Ph.D., Columbia, 1917 FORREST VERN OWEN, Associate, Plant Breeding and Nutrition B.S., Utah, 1921; M.S., Oregon, 1923; Ph.D., Wisconsin, 1926

WILLIAM FRANKLIN DOVE, Associate, Animal Breeding and Nutrition

B.S., Iowa State College, 1922; M.S., Wisonsin, 1923; Ph.D., 1927 AUBREY CLARE HILDRETH, Associate, Blueberry Investigations

B.S., West Virginia, 1917; Ph.D., Minnesota, 1926

IVA MERCHANT BURGESS, Assistant

B.S., Maine, 1923; M.S., 1925

MILDRED REBECCA COVELL, Assistant

MARGARET SCHNEIDER DERMEN, Assistant

B.A., Smith, 1922; M.A., Columbia, 1926

FREDERICK BARKER CHANDLER, Assistant, Blueberry Investigations

B.S., Maine, 1928

DELMAR BOYNTON LOVEJOY, Assistant, Plant Breeding and Nutrition

B.S., Maine, 1928

EMMELINE WILSON KENNEY, Laboratory Assistant

CHEMISTRY

JAMES MONROE BARTLETT, Head of Department, Inspection Analyses B.S., Maine, 1880; M.S., 1883; Sc.D., 1927 ELMER ROBERT TOBEY, Research Chemist B.S., Maine, 1911; M.S., 1917; Ch.E., 1920 CHARLES HARRY WHITE, Associate, Inspection Analyses Ph.C., Maine, 1897 BERNIE ELLIOTT PLUMMER, Jr., Assistant, Inspection Analyses B.S., Maine, 1924; M.S., 1925 **ENTOMOLOGY** EDITH MARION PATCH, Head of Department B.S., Minnesota, 1901; M.S., Maine, 1910; Ph.D., Cornell, 1911 CLARENCE RITCHIE PHIPPS, Associate B.S., Massachusetts Agricultural, 1919; M.S., Iowa, 1927 JOHN HENRY HAWKINS, Assistant B.S., Illinois, 1926; M.S., Maine, 1927 ALICE WOODS AVERILL, Laboratory Assistant HOME ECONOMICS PEARL STUART GREENE, Head of Department B.A., Northwestern, 1909; B.S., Lewis Institute, 1914; M.A., Columbia, 1923 GAIL MARGARET REDFIELD, Assistant B.S., Iowa State College, 1925; M.S., 1927 PLANT PATHOLOGY

DONALD FOLSOM, Head of Department

B.A., Nebraska, 1912; M.A., Minnesota, 1914; Ph.D., 1917 REINER BONDE, Associate

B.S., Minnesota, 1922; M.S., Maine, 1926 FLORENCE LYDIA MARKIN, Assistant

B.S., Montana State College, 1924; M.S., Wisconsin, 1926 BERNICE MARION BABBIN, Seed Analyst and Laboratory Assistant

GOVERNMENT OF THE STATION

By authority of the Trustees the affairs of the Station are considered by the Station Council, composed of the President of the University, three members of the Board of Trustees, the Director of the Station, the heads and associates of the various departments of the Station, the Dean of the College of Agriculture, the Commissioner of Agriculture, and one member each from the State Pomological Society, the State Grange, the State Dairymen's Association, the Maine Live Stock Breeders' Association, and the Maine Seed Improvement Association. The recommendations of the Council are referred to the Trustees for final action. The Director is the executive officer of the Station and the other members of the staff carry out the lines of research that naturally come under their departments.

INCOME

The income of the Station is derived from the following sources: Federal and State appropriations, payments for inspection analyses made for the Commissioner of Agriculture and from the sale of farm produce. Thru appropriations to the University the State provides for the cost of printing Station publications.

OBJECT

The purpose of the agricultural experiment stations is defined in the Act of Congress establishing them as follows:

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

regard to the varying conditions and needs of the respective States and Territories."

The work that the Station can undertake from the Adams Act fund is more restricted, as the fund can "be applied only to paying the necessary expenses of conducting original researches or experiments bearing directly on the agricultural industry of the United States, having due regard to the varying conditions and needs of the respective States or Territories." The object of the Purnell Act is stated as follows: "The funds appropriated pursuant to this Act shall be applied only to paying the necessary expenses of conducting investigations or making experiments bearing directly on the production, manufacture, preparation, use, distribution, and marketing of agricultural products and including such scientific researches as have for their purpose the establishment and maintenance of a permanent and efficient agricultural industry, and such economic and sociological investigations as have for their purpose the development and improvement of the rural home and rural life."

EQUIPMENT

Most of the Station offices and laboratories are in Holmes Hall, described in the section on University buildings. The station is well equipped in laboratories and apparatus, particularly in the lines of biological, chemical, entomological, horticultural, pomological, plant pathological, and poultry investigations. It has extensive collections illustrating the botany and entomology of the State. It has a library of nearly 6000 volumes comprising agricultural and biological journals and publications of the various experi-

ment stations.

HIGHMOOR FARM

The State Legislature of 1909 purchased a farm upon which the Maine Agricultural Experiment Station "shall conduct scientific investigations in orcharding, corn, and other farm crops." The farm is situated in the counties of Kennebec and Androscoggin, largely in the town of Monmouth It is on the Farmington branch of the Maine Central Railroad, two miles from Leeds Junction. A flag station, "Highmoor," is on the farm.

The original farm contains 225 acres, about 200 of which are in orchards. fields, and pastures. The Legislature in 1925 provided an appropriation for the purchase of 30 acres adjoining the farm for a demonstration orchard There are in the neighborhood of 3,000 apple trees upon the place. Fields that are not in orchards are well adapted to experiments with corn, potatoes. and similar farm crops. The house is well arranged for the station offices

and for the home of the farm superintendent. The barns are large, affording storage for hay and grain.

AROOSTOOK FARM

By action of the Legislatures of 1913 and 1915 a farm was purchased in Aroostook County for scientific investigations in agriculture to be under "the general supervision, management and control" of the Maine Agricultural Experiment Station. The farm is in the town of Presque Isle, about two miles south of the village, on the main road to Houlton. The Bangor and Aroostook Railroad crosses the farm.

The farm contains about 275 acres, somewhat more than half of which is cleared. The eight room house provides an office and a home for the farm superintendent. The large barn affords storage for hay and grain and has a potato storage house in the basement.

INVESTIGATIONS

The Station continues to restrict its work to a few important lines, believing that it is better for the agriculture of the State to study thoroly a few problems than to spread over the whole field of agricultural science. It has continued to improve its facilities and segregate its work in such a way as to make it an effective agency for research in agriculture. Prominent among the lines of investigation are studies upon the food of man and animals, the diseases of plants and animals, breeding of plants and animals, investigations in animal husbandry, orchard and field experiments, poultry investigations, entomological, agricultural and home economics research.

INSPECTIONS

The Commissioner of Agriculture is the executive of the laws regulating the sale of agricultural seeds, commercial feeding stuffs, commercial fertilizers, dairy products, drugs, foods, fungicides, and insecticides. The law requires the commissioner to collect samples and have them analyzed at the Station. The law also requires the Station to make the analyses and publish the results.

PUBLICATIONS

The Station issues three series of publications: Bulletins, Official Inspections, and Miscellaneous Publications.

EXPERIMENT STATION

The results of the work of investigation are published in part in scientific journals at home and abroad, in U. S. Department of Agriculture publications, and in bulletins of the Station. All of the more important and immediately practical studies are published in the Station Bulletins. The Bulletins for a year together make up the Annual Report. Bulletins are sent to the press of the State, to exchanges, libraries, and scientific workers. Bulletins which contain matter of immediate value to practical agriculture are sent free to residents of Maine whose names are on the permanent mailing list.

The results of the work of inspection are printed in pamphlet form and are termed Official Inspections. Official Inspections are sent to dealers within the State; those that have to do with fertilizers, feeding stuffs, and seeds are sent to farmers, and those reporting food and drugs are sent to a list of several thousand women within the State.

The Miscellaneous Publications consist of newspaper bulletins, circulars, and similar fleeting publications. These are sent to different addresses according to the nature of the subject matter.

On request, the name of any resident of Maine will be placed on the permanent mailing list to receive either or both the Bulletins and Official Inspections as they are published.



Graduate Study

FACULTY OF GRADUATE STUDY

*GEORGE DAVIS CHASE, Ph.D., LL.D., Dean of Graduate Study and Professor of Latin

LUCIUS HERBERT MERRILL, Sc.D., Professor of Biological and Agricultural Chemistry

JAMES NORRIS HART, Sc.D., Ph.D., Professor of Mathematics

JAMES STACY STEVENS, LL.D., Litt.D., Professor of Physics and Dean of the College of Arts and Sciences

CAROLINE COLVIN, Ph.D., LL.D., Professor of History WARNER JACKSON MORSE, Ph.D., Sc.D., Director, Experiment Station LEON STEPHEN MERRILL, M.D., Sc.D., Dean of the College of Agriculture *Edith Marion Patch, Ph.D., Entomologist, Experiment Station *LAMERT SEYMOUR CORBETT, M.S., Professor of Animal Industry WILLIAM JORDAN SWEETSER, B.S., Professor of Mechanical Engineering *Roy Merle Peterson, Ph.D., Secretary of the Faculty and Professor of

Spanish and Italian

ROBERT RUTHERFORD DRUMMOND, Ph.D., Professor of German HARLEY RICHARD WILLARD, Ph.D., Professor of Mathematics JOHN H ASHWORTH, Ph.D., Professor of Economics and Sociology CHARLES ANDREW BRAUTLECHT, Ph.D., Professor of Chemistry HAROLD MILTON ELLIS, Ph.D., Professor of English *Embert HIRAM SPRAGUE, B.S., Professor of Civil Engineering ALBERT LEWIS FITCH, Ph.D., Professor of Physics DONALD FOLSOM, Ph.D., Plant Pathologist, Experiment Station FRANÇOIS JOSEPH KUENY, L. es L., Professor of French JOHN WILLIAM DRAPER, Ph.D., Professor of English CHARLES HENRY MERCHANT, M.S., Ph.D., Professor of Agricultural

Economics and Farm Management

JAMES HOWARD WARING, M.S., Professor of Horticulture PAUL CLOKE, M.S., E.E., Dean of the College of Technology *OLIN SILAS LUTES, Ph.D., Professor of Education CHARLES ALEXIUS DICKINSON, Ph.D., Professor of Psychology PEARL STUART GREENE, M.A., Professor of Home Economics *FERDINAND HENRY STEINMETZ, Ph.D., Professor of Botany DONNELL BROOKS YOUNG, Ph.D., Professor of Zoology WILLIAM EDWARD BARROWS, E.E., Professor of Electrical Engineering ARTHUR ST. JOHN HILL, E.E., Professor of Electrical Engineering

GRADUATE STUDIES

FRED GRIFFEE, Ph.D., Biologist, Experiment Station ELMER REEVE HITCHNER, M.S., Associate Professor of Bacteriology *PAUL DECOSTA BRAY, Ch.E., Associate Professor of Chemistry Ava Harriet Chadbourne, Ph.D., Associate Professor of Education CHARLES BURTON CROFUTT, Ph.D., Associate Professor of Physics CLIFFORD STETSON PARKER, Ph.D., Associate Professor of French Forrest Verne Owen, Ph.D., Associate Biologist, Experiment Station WILLIAM FRANKLIN DOVE, Ph.D., Associate Biologist, Experiment Station AUBREY CLARE HILDRETH, Ph.D., Associate Biologist, Experiment Station MARION DEVOE SWEETMAN, Ph.D., Assistant Professor of Home Economics

*Members of the Executive Committee.

ADMINISTRATION

Graduate work is administered by the Faculty and Dean of Graduate Study. The details of administration are in the hands of an executive committee consisting of the Dean, one member from the Experiment Station, and two members from each of the three colleges—Agriculture, Arts and Sciences, and Technology.

ADMISSION

Students who hold a bachelor's degree from the University of Maine, or from an institution granting a fully equivalent degree, and who desire to pursue advanced studies, are admitted as graduate students and are under the direction of the faculty of graduate study, whether they are candidates for a degree or not.

REGISTRATION

At the beginning of each semester all graduate students, whether candidates for a degree or not, are required to register with the head of the department in which they propose to do their major work, obtain the approval of the Dean, and complete their registration by filing their program of study at the Registrar's office. A fee of two dollars is charged for registration after two weeks have elapsed.

TUITION AND FEES

The tuition charges for graduate students are the same as for undergraduates.

Candidates for professional degrees are required to pay a fee of \$5.00 at the time of registration, and a fee of \$10.00 upon the presentation of the thesis.

SCHOLARSHIPS

The Trustees have established three competitive graduate scholarships, one for each college, of the value of a year's tuition, open to members of the senior class or to graduates of earlier classes, and in addition have designated three similar scholarships, apportioned in the same manner among the colleges of the University, for the benefit of graduates of institutions located in the maritime provinces of Canada. Another, known as the Phi Beta Kappa scholarship, has been established by the local chapter of the honor society of that name in coöperation with the Trustees.

Applications for the scholarship awarded by the College of Technology should be made not later than April 1. It is expected that applications for all other scholarships shall be in the hands of the Dean of Graduate Study by May 1.

THE COE RESEARCH FUND

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The Trustees of the University have set aside the sum of \$100,000 to form a permanent fund the proceeds of which are to be used for carrying on various kinds of research work within the University. Applications for grants from this fund may for the present be addressed to the President. It is hoped that this fund may later be increased by grants from other sources.

DEGREES

The degrees of Master of Arts and Master of Science are granted to candidates who hold corresponding bachelor's degrees and fulfill the requirements of residence and scholarship.

A candidate for an advanced degree must give evidence by his previous record that he is qualified to do graduate work of a satisfactory grade. If he is a graduate of another institution he is required to submit, with his plan of study, credentials covering the courses pursued and the standing attained.

GRADUATE STUDIES

REQUIREMENTS FOR THE MASTER'S DEGREE

A candidate for the master's degree is required to devote at least one year to resident graduate study and to complete work amounting to fifteen hours per week thruout the college year (thirty semester hours). In the case of summer session students, four sessions, or the equivalent, are normally accepted as equivalent to a year of residence.

At least one year must elapse between the conferring of the bachelor's and the master's degree. No work done before the recommending for the bachelor's degree shall be counted toward the master's degree.

As soon after registration as practicable, the student, in conference with his major instructor, will plan his entire course of study for the master's degree. The major instructor will present the proposed curriculum for approval to a committee, which consists of the Dean of Graduate Study and the representatives of the candidate's college on the executive committee of the faculty.

The curriculum shall include work in a major department or subject in which the candidate has already completed the equivalent of at least two years of undergraduate study. The work may all be done in one department, or it may include not more than two minor subjects which bear a distinct relation to the general plan or purpose of the major subject. All of the work must be of advanced character and must be tested by examinations which the candidate shall pass with distinction.

Courses of study intended primarily for graduate work are numbered above 100 in the catalog, but courses numbered 51 to 100 inclusive may be counted upon approval. Courses numbered 50 or under may not be accepted

for graduate credit.

Each candidate for a degree is furnished with a pass book containing the names and number of the courses which have been approved for his degree, and spaces for entering the date of beginning and completing each course, to be filled in by the instructor. This book is the student's official record of his course and should be carefully preserved and presented at the time of his final examination.

The candidate shall prepare as a part of his curriculum a satisfactory thesis on some topic connected with his major subject. The subject of the thesis must be submitted by the end of the first semester of study. The thesis must be deposited in completed form with the Dean of Graduate Study before the final examination and have been previously approved by a committee composed of his major instructor, the head of the major department, and the members of the executive committee from the candidate's college.

At the end of the course of study for the master's degree, the candidate will be required to pass an oral examination covering his work, includ-

ing the thesis. This examination shall be open to all voting members of the faculty of the University. The time for such examinations will be arranged by the dean to accord, so far as possible, with the convenience of the candidate and the major instructor, between the dates of May 15 and June 1; but no student will be admitted to an oral examination until his thesis has been accepted by his major instructor. On May 15, the Dean will notify the heads of all departments of the University of the dates set for the public oral examinations of all candidates of the year. While the examination will in each case, as a matter of course, be conducted chiefly by the members of the departments in which the work has been done, any member of the faculty present at the examination has the privilege of questioning the candidate.

Further information about the administration of graduate work and detailed requirements for the form and arrangement of theses may be found in a pamphlet entitled "Degrees and Theses."

PROFESSIONAL DEGREES

The professional degrees of Chemical Engineer (Ch.E.), Civil Engineer (C.E.), Electrical Engineer (E.E.), and Mechanical Engineer (M.E.) may be conferred upon graduates in the curricula in Chemistry, Chemical Engineering, Civil Engineering, Electrical Engineering, and Mechanical Engineering, respectively, upon the presentation of satisfactory theses, after at least three years of professional work subsequent to graduation. During at least two of the years after graduation the candidate must have occupied a position of responsibility. Candidates are expected to be present in person

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to receive their degrees.

UNIVERSITY OF MAINE STUDIES

The University of Maine Studies, Second Series, are issued under the direction of the Faculty of Graduate Study, for the purpose of publishing notable pieces of research work produced by graduate students and members of the faculty. The numbers issued to date are:

No. 1	The Life and Work of John Davis (1774-1853)	
	By Thelma Louise Kellogg, M.A.	1924
No. 2	Economic Feminism in American Literature prior to 1848	
	By A. Genevieve Violette, M.A.	1925
No. 3	Roumanian Folk Tales Retold from the Original	
	By Dr. Jacob Bernard Segall	1925

GRADUATE STUDIES

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No.	4	Life of Thomas Green Fessenden	
		By Porter Gale Perrin, M.A.	1925
No.	5	Mental Attainment of College Students in Relation to	
		Previous Training, Environment, and Heredity	
		By Dr. John Whittemore Gowen and Marjorie	
		Eunice Gooch, M.A.	1925
No.	6	The Formal Eclogue in Eighteenth Century England	
	-	By Marion Kathryn Bragg, M.A.	1926
No.	7	Indian Remains of the Penobscot Valley and their Significance	
		By Walter B. Smith	1926
No.	8	Stephen Duck, the Thresher-Poet	
		By Rose Mary Davis, M.A.	1927
No.	9	Methods Used in Growing Peas for Canning in Maine and the I	Prob-
		lems Connected with Their Economical Production	
		By Maurice Daniel Jones, M.S.	1927
No.	10	Vacuum Tube Amplifiers for Audio-Frequency Currents	
		By Walter Joseph Creamer, E.E.	1927
No.	11	A Lesser Hartford Wit, Dr. Elihu Hubbard Smith (1771-1798)	
		By Martha Edgerton Bailey, M.A.	1928

List of University of Maine Studies—First Series

No. 1	Effect of Magnetization upon the Elasticity of Rods	
	By James S. Stevens	1900
No. 2	The Life History of Nucula Delphenodonta Mighels	
	By Gilman A. Drew	1901

No. 3 The Preliminary List of Maine Fungi By Percy LeRoy Ricker, M.S. 1902 *No. 4 Catalog and Bibliography of the Odonata (Dragon Flies) of Maine By F. L. Harvey 1902 *No. 5 Study of the Physiographic Ecology of Mt. Katahdin, Maine By L. H. Harvey 1903 The Habits, Anatomy, and Embryology of the Giant Scallop No. 6 (Pecten tenuicostatus Mighels) By Gilman A. Drew 1906 No. 7 Meteorological Conditions at Orono, Maine By James S. Stevens 1907 Copies of the Studies may be obtained from the University Library at fifty cents each.

*Out of print.

Summer Session

Since 1895, with the exception of the years 1898-1902 and 1918-19, the University has conducted an annual summer session of six weeks, beginning usually in the first week in July and ending early in August. The registration has steadily increased, and also the number and range of courses. Instruction is given in nearly all departments of the College of Arts and Sciences, principally by heads of departments and other teachers of professorial rank in that college or by visiting professors from other institutions. Courses are also offered in Physical Education, Pulp and Paper Making, and Home Economics.

The Summer Session is primarily for the benefit of teachers and superintendents in Maine and from other states who desire to improve themselves by taking professional courses required by the State Department of Education, or by pursuing subjects which may be helpful to them in connection with their work; and for students in the University or other colleges who desire advanced credit toward the bachelor's or master's degree. Especial attention is given to teachers' courses in the various subjects offered. Normal school graduates who are admitted to advanced standing in the University as candidates for a bachelor's degree may do a part of their work in the Summer Session. Properly qualified graduates of colleges or universities may complete graduate work in certain departments leading to the degree of Master of Arts by attendance at four summer sessions, or preferably at two

summer sessions and during one regular semester.

Under ordinary circumstances the summer session student is expected to carry not more than three courses, each of which in most cases gives two hours of University credit. The opening and closing dates for 1929 are July 1 and August 9. Students who are planning to attend the Summer Session should send for the Summer Session Bulletin, to be issued about February 15, and should plan their courses in advance, if possible consulting the instructors concerned. For any additional information address Dr. Milton Ellis, Director of the Summer Session, Orono, Maine.

SUMMER SESSION

Session of 1928

FACULTY OF INSTRUCTION

*MILTON ELLIS, Ph.D., Director

IRVING TREFETHEN RICHARDS, M.A., Assistant Director in charge of the Summer Session, Assistant Professor of English

JOHN HOMER HUDDILSTON, Ph.D., Lecturer on Art History

Roy MERLE PETERSON, Ph.D., Professor of Spanish and Italian

HARLEY RICHARD WILLARD, Ph.D., Professor of Mathematics

JOHN H ASHWORTH, Ph.D., Professor of Economics and Sociology

CHARLES ANDREW BRAUTLECHT, Ph.D., Professor of Chemistry and Chemical Engineering

ALBERT LEWIS FITCH, Ph.D., Professor of Physics

FOSTER ERWIN GEYER, Ph.D., Professor of French, Dartmouth College

CHARLES ALEXIUS DICKINSON, Ph.D., Professor of Psychology

OLIN SILAS LUTES, Ph.D., Professor of Education and Director of Teachers' Registration Bureau

FERDINAND HENRY STEINMETZ, Ph.D., Professor of Botany AVA HARRIET CHADBOURNE, Ph.D., Associate Professor of Education NOAH ROSENBERGER BRYAN, Ph.D., Associate Professor of Mathematics ALBERT MORTON TURNER, Ph.D., Associate Professor of English PAUL DECOSTA BRAY, B.S., Ch.E., Associate Professor of Chemistry and

Chemical Engineering

MAYNARD FRED JORDAN, M.A., Associate Professor of Mathematics and Astronomy

ALVA CURTIS WILGUS, Ph.D., Associate Professor of History, University of South Carolina

HOWARD WATSON FLACK, B.A., Physical Director, Sapulpa, Oklahoma, Public Schools

PERCIE HOPKINS TURNER, Ph.D., Assistant Professor of English, 1924-1927 WALTER WHITMORE CHADBOURNE, M.B.A., Assistant Professor of Economics MAURICE WESCOTT AVERY, Ph.D., Assistant Professor of Latin, Williams College

HELEN ANNA LENGYEL, B.A., Assistant Professor of Physical Education for Women

KENNETH STILLMAN RICE, Ph.D., Assistant Professor of Zoology

*On leave of absence, at University of Chicago.

ALBERT HENRY IMLAH, M.A., Instructor in History, Tufts College KENNETH ARNOLD AGEE, Ed.M., Assistant in Education, Harvard University CHESTER WINFIELD HOLMES, Ed.M., Principal of Morgan Junior High School, Holyoke, Massachusetts JOHN GEORGE LESLIE CAULFIELD, M.S., Instructor in Chemistry and Chemical Engineering MARY CROWELL PERKINS, M.A., Instructor in English HERBERT EDGAR RAHE, B.S., Instructor in Public Speaking LILLIAN HINDS GATES, M.A., Instructor in Home Economics at Farmington State Normal School LUCILE FOSTER, B.A., Student at the Sorbonne, Paris GRACE L. PENNOCK, B.A., Teaching Fellow in Home Economics, Iowa State College EDITH M. STOKER, M.A., Supervisor of Instruction and School Psychologist, Paducah, Kentucky ALMA JOHNSON, R.N., Resident Health Nurse MIRETTA LYDIA BICKFORD, B.A., Teacher of History in Weaver High School, Hartford, Connecticut

Special Lecturers in Education

BERTRAM EVERETT PACKARD, B.A., LL.B., Deputy State Commissioner of Education

FLORENCE LOUISE JENKINS, B.S., State Supervisor of Home Economics

WILLIAM BLAKE JACK, B.A., L.H.D., Superintendent of Schools, Portland, Maine

Alumni Associations

GENERAL ASSOCIATION

President, Raymond H. Fogler, 1915, 455 Seventh Ave., New York, N. Y. Vice-President, E. E. Chase, 1913, Fidelity Building, Portland, Maine Clerk, B. C. Kent, 1912, Orono Executive Secretary, Charles E. Crossland, 1917, Fernald Hall, Orono Treasurer, Elmer R. Tobey, 1911, Orono

ALUMNI COUNCIL

Members at Large

Term expires

E. E. Chase, 1913, Fidelity Building, Portland	1929
W. H. Jordan, 1875, Main Street, Orono	1929
George S. Williams, 1905, 221 State St., Augusta, Maine	1929
C. Parker Crowell, 1898, 36 Howard St., Bangor, Maine	1930
E. H. Kelley, 1890, Orono	1930
Harry E. Sutton, 1900, 161 Devonshire St., Boston, Mass	1930
Wayland D. Towner, 1914, 263 Payson Road, Belmont, Mass	1930
Mrs. Mildred Prentiss Wright, 1911, 188 Elm St., Bangor	1930

Marshall B. Downing,	1899,	140	West	St.,	New	York,	N.	Y	1931
Henry F. Drummond,	1900,	41 J	ames	St.,	Bango	or			1931
Linwood B. Thompson	, 1912,	22 2	Miller	St.,	Belfa	st			1931

College of Agriculture

College of Arts and Sciences

College of Technology

Dr. E. R. Berry, 1904, General Electric Co., West Lynn, Mass. 1929

Ex-Officio Members

R. H. Fogler, 1915, 455 Seventh Ave., New York, N. Y. President of the General Alumni Association
E. E. Chase, 1913, Fidelity Building, Portland Vice-President of the General Alumni Association

Executive Committee

E. E. Chase (Chairman)
A. L. Deering
H. F. Drummond
A. L. King
Harry Sutton
R. H. Fogler (c.x-officio)

ALUMNI REPRESENTATIVE TO BOARD OF TRUSTEES

ALUMNI MEMBERS OF THE ATHLETIC BOARD

	Term expires
J. Harvey McClure	1929
Clifford Patch	1930
Clifton Hall	1931

SPECIAL ASSOCIATIONS

College of Law

President, James M. Gillin, L1913, 12 Columbia Bldg., Bangor; Secretary, Mark A. Barwise, 1913, 9 Columbia Bldg., Bangor

SHORT COURSE ALUMNI

President, Bertram Tomlinson, 1918sc, Barnstable, Mass.; Secretary, H. Styles Bridges, 1918sc, Patriot Bldg., Concord, N. H.

MAINE TEACHERS

President, Andrew E. Strout, 1922, 320 Woodfords St., Portland, Maine; Secretary-Treasurer, Beulah Osgood, 1926, Orono; Executive Secretary, Luther J. Pollard, University of Maine, Orono

ALUMNI ASSOCIATIONS

LOCAL ASSOCIATIONS

Androscoggin Valley-President, F. A. French, 1917, Jordan High School, Lewiston; Secretary, Lester H. Morell, 1915, 13 Lisbon St., Lewiston

Aroostook County-President, Clayton H. Steele, 1911, Presque Isle; Secretary, Granville C. Gray, 1916, Presque Isle

- Boston-President, T. W. Monroe, 1924, 50 Federal St., Boston, Mass.; Secretary, H. C. Crandall, 1921, 517 Fellsway East, Malden, Mass.
- Boston Club University of Maine Women-Secretary, Mrs. Harry C. Robbins, 1918, 5 Marion Road, Marblehead, Mass.
- Chicago-President, Leslie I. Johnstone, 1905, 428 South Clifton Ave., Park Ridge, Ill.; Secretary, George E. LaMarche, 1911, 6380 Osceola Ave., Chicago, Ill.
- Central Maine-President, M. F. McCarthy, 1911, 61 Benton Ave., Waterville; Secretary, C. A. Blackington, L1914, 120 Main St., Waterville
- Cleveland—President, R. B. Pond, 1912, 1649 Holywood Road, Cleveland, Ohio; Secretary, Basil Barrett, 1916, 600 Citizens Bank Bldg., Cleveland, Ohio
- Dominion-President, A. Guy Durgin, 1908, 52 The Drive, Sault Ste. Marie, Ont.; Secretary, Manley W. Davis, 1918, Abitibi Power & Paper Co., Iroquois Falls, Ont.
- Eastern New York—President, Wesley C. Plumer, 1921, 312 Harrison Ave., Schenectady, N. Y.; Secretary, H. R. Butler, 1920, 109 Sixth St., Scotia, N. Y.
- Hancock County-President, Guy E. Torrey, 1909, Bar Harbor; Secretary, David O. Rodick, 1917, Bar Harbor

- Hartford-President, Guy V. Dyer, 1913, 650 Main St., Hartford, Conn.; Secretary, E. Hyland May, 1918, Travelers Insurance Co., Hartford, Conn.
- Kennebec County-President, Herman R. Mansur, 1905, Augusta; Secretary, Henry L. Doten, 1923, 102 Sewall St., Augusta
- Knox County-President, Alan L. Bird, 1900, Rockland; Secretary, R. S. Sherman, 1906, Rockland
- New York—President, M. B. Downing, 1899, 140 West St., New York, N. Y.; Secretary, C. C. Small, 1920, 455 Seventh Ave., New York, N. Y.
 Oxford County—President, J. B. Stevenson, L1900, Rumford; Secretary, Elon L. Brown, 1908, Norway
- Penobscot Valley-Secretary, Ralph Whittier, 1902, Penobscot Savings Bank Bldg., Bangor
- Philadelphia-President, E. A. Stanford, 1906, Chestnut Hill, Philadelphia, Pa.; Secretary, W. A. Fogler, 1909, 2301 Market St., Philadelphia, Pa.

- Pittsburgh-President, R. R. Owen, 1921, Oliver Building, Pittsburgh, Pa.; Secretary, D. F. Alexander, 1923, 330 West St., Wilkinsburg, Pa.
- Portland Club University of Maine Women-President, Mrs. Everett Strout, 1922, 320 Woodfords St., Portland; Vice-President, Mrs. Carleton Martin, 1922, 56 Clinton St., Woodfords; Secretary-Treasurer, Mrs. Albert Libby, 1922, 437 Ocean St., So. Portland

Providence—A. B. Lengley, 1920, 47 Woodman St., Providence, R. I.; Secretary, Irving B. Kelley, 1926, Y.M.C.A., 60 Broad St., Providence, R. I.

Sagadahoc County-Secretary, H. E. Pratt, 1921, 7 Everett St., Brunswick

- Somerset County—President, LeRoy Folsom, 1895, Norridgewock; Secretary, Gerald C. Marble, Ex-1917, Cor. Madison Ave. & High Sts., Skowhegan
- Southern California—President, L. A. Boadway, 1891, % Boadway Bros., Pasadena, Cal.; Secretary, E. M. Loftus, 1914, 404 Hellman Bank Bldg., Los Angeles, Cal.
- Southern New Hampshire—Secretary, H. Styles Bridges, 1918, Patriot Bldg., Concord, N. H.
- Twin City—President, A. G. Eaton, 1914, 254 Macalister Ave., St. Paul, Minn.; Secretary, Ralph Hamlin, 1898, 5129 Wentworth Ave., Minneapolis, Minn.
- Waldo County-President, Chas. S. Bickford, 1882, 30 Cedar St., Belfast; Secretary, Will R. Howard, 1882, Belfast
- Washington, D. C.-President, B. A. Chandler, 1909, 112 Chestnut Ave., Takoma Park, D. C.; Secretary, W. B. Emerson, 1912, 415 Aspen St., Takoma Park, D. C.
- Western Maine-President, Edward L. Hacker, 1921, 44 Berkeley St., Woodfords; Secretary, Simon Moulton, 1918, 98 Exchange St., Portland

Western New York—President, S. C. Clement, 1915, State Normal School, Buffalo, N. Y.; Secretary, A. F. Neale, 1909, 121 Minnesota Ave., Buffalo, N. Y.

- White Mountain-President, Robert Rich, 1918, 173 Main St., Berlin, N. H.; Secretary, Walter W. Webber, 1916, 133 Clark St., Berlin, N. H.
- Worcester County-President, Leon J. Croteau, 1915, 314 Main St., Worcester, Mass.; Secretary, John H. Mahoney, 1927, 2 Hammond St., Worcester, Mass.
- York County-President, F. R. Chesley, L1911, 402 Main St., Saco; Secretary, Robert Moore, 1916, 292 Alfred St., Biddeford

CLASS SECRETARIES

1872 E. J. Haskell, 541 Brighton Ave., Woodfords1873 John M. Oak, 13 Third St., Bangor

1874

- 1875 Dr. W. H. Jordan, Orono
- 1876 E. M. Blanding, 46 Madison Ave., Bangor
- 1877 E. F. Danforth. Skowhegan
- 1878 C. C. Chamberlain, Enderlin, N. D.
- 1879 George P. Merrill, U. S. National Museum, Washington, D. C.
- 1880 A. H. Brown, Old Town
- 1881
- 1882 W. R. Howard, Belfast
- 1883 Professor L. H. Merrill, 100 Main St., Orono
- 1884 L. W. Cutter, 163 Broadway, Bangor
- 1885 Dean J. N. Hart, University of Maine, Orono
- 1886 H. S. French, 211 Crafts St., Newtonville, Mass.
- 1887 J. S. Williams, Guilford
- 1888 H. F. Lincoln, Phoenix Utility Co., Waterville, N. C.
- 1889 Dr. J. S. Ferguson, Malba, Queensboro, New York, N. Y.
- 1890 Edward H. Kelley, Alumni Hall, Orono
- 1891 W. M. Bailey, 88 Broad St., Boston, Mass.
- E. W. Danforth, 468 Medford St., Somerville, Mass. 1892
- Harry M. Smith, 41 Hammond St., Bangor 1893
- 1894 Frank Gould, Orono
- 1895 Dr. H. S. Boardman, Orono
- 1896 Perley B. Palmer, Woodland, Maine
- W. L. Holyoke, 675 Yadkin St., Kingsport, Tenn. 1897
- 1898 W. L. Ellis, Nashua Co-operative Iron Foundry Co., Nashua, N. H.
- A. L. Grover, Box 201, Bangor, Maine 1899

- W. N. Cargill, % The Lumsden & Van Stone Co., South Boston, 1900 Mass.
- 1901 M. B. Merrill, 78 Pleasant St., Meriden, Conn.
- 1902 H. E. Cole, Harris Pump & Supply Co., 320 Second Ave., Pittsburgh, Pa.
- 1903 Paul D. Simpson, Seal Harbor
- A. M. Knowles, 71 W. 23rd St., New York, N. Y. 1904
- 1905 Professor A. W. Sprague, 217 Union St., Bangor
- 1906 Harry Emery, 78 Exchange St., Bangor
- 1907 Elmer J. Wilson, General Electric Co., W. Lynn, Mass.
- 1908 E. N. Vickery, Pittsfield
- 1909 Deane S. Thomas, Monument Square, Portland
- 1910 Herman P. Sweetser, Cumberland Center
- 1911 Fred Nason, 59 Benton Ave., Waterville
- 1912 A. L. Deering, Orono
- 1913 Harold Hamlin, Orono

- 1914 P. W. Monohon, 133 Woodridge Place, Leonia, N. J.
- 1915 George H. Bernheisel, 30 East Parkway, Scarsdale, N. Y.
- 1916 W. W. Webber, 133 Clark St., Berlin, N. H.
- 1917 F. O. Stephens, 21 Academy St., Auburn
- 1918 Thelma Kellogg, 2 Potter Park, Cambridge, Mass.
- 1919 Dwight B. Demeritt, State College, Pa.
- 1920 E. P. Jones, 22 Valley Ave., Milton, Mass.
- 1921 Winthrop L. MacBride, 1322 First St., Rensselaer, N. Y.
- 1922 Ian M. Rusk, West Townsend, Mass.
- 1923 Mary C. Perkins, 37 Tremont St., Portland, Maine
- 1924 Eric O. Berg, Hebron
- 1925 Mrs. F. C. Bannister, 85 Capitolian Blvd., Rockville Center, N. Y.
- 1926 Cora E. Emery, 251 Park Ave., Palm Beach, Fla.
- 1927 Paul D. Lamoreau, Presque Isle, Maine
- 1928 G. Frederick Scribner, Bridgton, Maine



HONORS AND PRIZES AWARDED

Honors and Prizes Awarded

MEMBERS OF PHI KAPPA PHI

1928

Russell Manley Bailey, Waterville; Helen Frances Benner, Bangor; Neil Sinclair Bishop, Bowdoinham; Addie May Brown, Seawall; George Raymond Chappell, Saco; Louis Cohen, Swampscott, Mass.; Linwood Sumner Cotton, Cumberland Mills; David Wilbur Fuller, Southwest Harbor; Hilda Freda Ginsberg, Old Town; Waldo Willis Hill, Biddeford; Ardron Bayard Lewis, Springfield; Mary Agnes McGuire, Stonington; Laura Green Pedder, Bangor; Thelma Adelaide Perkins, Old Town; Laurence Walker Porter, Yarmouth; Clara Elizabeth Sawyer, Searsport; Marguerite Joyce Stanley, Berlin, N.H.; Philip Harold Trickey, Bangor.

1929

John Burton Ames, Bridgton; Jessie Ellen Ashworth, Orono; Barbara Elizabeth Damm, Old Town; Merton Francis Morse, Gardiner; Merton Stanley Parsons, South Paris; Gordon Smith, Bangor; Myrtle Margaret Walker, Wiscasset.

MEMBERS OF TAU BETA PI

George Raymond Chappell, Saco; Linwood Sumner Cotton, Cumberland Mills; Clarence Melville Flint, Roslindale, Mass.; Harry Robert Hartman, Bar Harbor; Whitcomb Haynes, Ellsworth; Waldo Willis Hill, Biddeford; Donald Jordan Huot, Brewer; Arthur Johnson Kelley, Jonesport; Clarence Roland Libby, Wayne; Laurence Walker Porter, Yarmouth; George Eben Power, Brewer; William S. Reid, Augusta; Robert Folsom Scott, Old Town; Philip Harold Trickey, Bangor.

1929

John Burton Ames, Bridgton; Harrison Gardner Bourne, Jr., Arlington, Mass.; George Lester Coltart, Brewer; Harry Drew Crandon, Portland; Donald Ellsworth Drew, Patten; Harold Eastman Ellis, Augusta; Burleigh

Maurice Hutchins, Cape Porpoise; Abram Joseph Libby, Bangor; Stanley Oswald McCart, Eastport; Merton Francis Morse, Gardiner; George Adelbert Noddin, Bangor; Harold Ellis Noddin, Bangor; Roderic Comins O'Connor, Bangor; Harold Neally Powell, Orono; George Wesley Rave, Eastport; Archibald Van Smith, Steuben; Gordon Smith, Bangor.

MEMBERS OF ALPHA ZETA

1928

Russell Manley Bailey, Waterville; Neil Sinclair Bishop, Bowdoinham; Omar Keith Gibbs, Livermore Falls; Ardron Bayard Lewis, Springfield; Delmar Boynton Lovejoy, Mexico; William Ernest Schrumpf, Farmington; Charles Preston Stone, Fort Fairfield; Eldwin Atwell Wixson, Winslow.

1929

Rutillus Harrison Allen, North Jay; Kenneth Theodore Brown, Mexico; Robert Flint Chandler, New Gloucester; Vernon Alfred Gamage, Litchfield; Harry Lee Murray, Hampden Highlands; Merton Stanley Parsons, South Paris; George Edgar Rose, West Springfield, Mass.; Merwyn Farrington Woodward, Fryeburg.

1930

Laurence Buzzell Boothby, Livermore Falls; Horace Lester Caler,

236

Addison; Kenneth Richardson Haskell, Deer Isle; Clifford Guy McIntire, Perham.

Members of Phi Beta Kappa

1928

Helen Frances Benner, Bangor; David Wilbur Fuller, Southwest Harbor; Hilda Freda Ginsberg, Old Town; Mary Agnes McGuire, Stonington; Frederic Coleman Murphy, Van Buren; Laura Green Pedder, Haverhill, Mass.; Thelma Adelaide Perkins, Old Town; Clara Elizabeth Sawyer, Searsport; Marguerite Joyce Stanley, Berlin, N.H.

HONORS AND PRIZES AWARDED

GENERAL HONORS

Gifford Belcher Adams, Boothbay Harbor; Russell Manley Bailey, Waterville; Helen Frances Benner, Bangor; Neil Sinclair Bishop, Bowdoinham; Harold Everett Bowie, Lisbon Falls; Addie May Brown, Seawall; George Raymond Chappell, Saco; Louis Cohen, Swampscott, Mass.; Linwood Sumner Cotton, Cumberland Mills; Clarence Melville Flint, Roslindale, Mass.; David Wilbur Fuller, Southwest Harbor; Omar Keith Gibbs, Livermore Falls; Hilda Freda Ginsberg, Old Town; Allen Wright Goodspeed, Upper Montclair, N.J.; Waldo Willis Hill, Biddeford; Arthur Johnson Kelley, Jonesport; Katharine Whitney Larchar, Old Town; Ardron Bayard Lewis, Springfield; Clarence Roland Libby, Wayne; Delmar Boynton Lovejoy, Mexico; Mary Agnes McGuire, Stonington; Harold Anthony Medeiros, Vanceboro; Frederic Coleman Murphy, Van Buren; Laura Green Pedder, Bangor; Thelma Adelaide Perkins, Old Town; Laurence Walker Porter, Yarmouth; Emma Elizabeth Thompson, Bangor; Clara Elizabeth Sawyer, Searsport; Marguerite Joyce Stanley, Berlin, N.H.; Philip Harold Trickey, Bangor; Eldwin Atwell Wixson, Winslow.

SCHOLARSHIPS AND PRIZES

Kidder Scholarship, Thomas Gray Harvey, Fort Fairfield.

New York Alumni Association Scholarship No. 1, Edward Stern, Bangor.

New York Alumni Association Scholarship No. 2, Stanley Oswald

McCart, Eastport; Merton Francis Morse, Gardiner.

Pittsburgh Alumni Association Scholarship, George Lester Coltart, Brewer.

Prize of the Class of 1873, David Stillman Marr, Millinocket.

Central District Alumni Association Scholarship, Paul Marshall Elliott, Beverly, Mass.

Elizabeth Abbott Balentine Scholarship, Goldie Modes, Portland. Phi Mu Scholarship, Ella Crowell Bolan, Winterport.

Joseph Rider Farrington Scholarship, Myrtle Margaret Walker, Wiscasset.

Stanley Plummer Scholarship, Maple Ismay Percival, Dexter. Walter Balentine Prize, Kenneth Richardson Haskell, Deer Isle. Franklin Danforth Prize, Russell Manley Bailey, Waterville. Washington Alumni Association Watch, Fred Harold Thompson, Millinocket.

Victoria Weeks Hacker Watch, Frances Snow Fuller, Hallowell.

Penobscot Valley Alumni Association Scholarship No. 1, Clovis Breton, Bangor.

Penobscot Valley Alumni Association Scholarship No. 2, Ermond Fred Lewis, Springfield.

Alpha Omicron Pi Alumnae Prize, Elizabeth Livingstone, Winchester, Mass.

Chi Omega Sociology Prize, Caroline Ella Collins, Bangor.

William Emery Parker Scholarship, Bernard Martin Berenson, Portland.

Class of 1905 Scholarship, Paul Marshall Elliott, Beverly, Mass.

Sigma Theta Rho Prize, Claire Agnes Callaghan, South Brewer.

Trustee Undergraduate Scholarships—At large, Archibald Van Smith, Steuben; Agriculture, Merton Stanley Parsons, South Paris; Arts and Sciences, Barbara Elizabeth Damm, Old Town; Technology, John Burton Ames, Bridgton.

Trustee Graduate Scholarships—Agriculture, Eldwin Atwell Wixson, Winslow; Technology, Elton Wright Jones, East Haven, Conn.

Phi Beta Kappa Scholarship, Edward Gilman Kelley, Orono.

Henry L. Griffin Prize, Philip Judd Brockway, South Hadley, Mass.

Track Club Scholarship, Norman Wheeler Webber, Hartland.

Greek Culture Prize, Erdine Faye Besse, Albion.

Class of 1927 Senior Skull Society Scholarship, Victor Boynton MacNaughton, Bangor.

Agricultural Club Membership Cup, Class of 1929.

Charles Rice Cup, Phi Eta Kappa.

Twentieth Century Commencement Cup, Class of 1908.

Class of 1908 Commencement Cup, Class of 1873.
Pan Hellenic Sorority Cup, Delta Zeta.
Fraternity Scholarship Cup, Sigma Chi.
The Maine Campus Freshman Scholarship Cup, Sigma Phi Sigma.

COMMENCEMENT

Commencement 1928

THURSDAY, JUNE 7

- 5:00 P.M. Phi Kappa Phi Initiation
- 6:00 P.M. Banquet, Phi Kappa Phi
- 7:45 P.M. Masque Play, Chapel, Alumni Hall. "The Enemy"
- Open house at fraternities 9:00 P.M.

FRIDAY, JUNE 8

- 9:30 A.M. Meeting of the Alumni Council
- 2:30 P.M. Class Day Exercises, University Oval
- 4:00 P.M. Pageant, Presented by All Maine Women, Campus
- 7:30 P.M. President's Reception, Chapel
- 9:00 P.M. Student Hop, Gymnasium

SATURDAY, JUNE 9

- 9:00 A.M. Annual Business Meeting, General Alumni Association
- 12:30 P.M. Alumni Luncheon, Commons
- 2:30 P.M. Concert by Band

- 2:30 P.M. Class Frolics
- 3:00 P.M. Baseball Game-Varsity vs. U. S. Naval Training Station, Newport, R. I.
- 6:00 P.M. Alumni Banquet, Alumni Hall
- 9:00 P.M. Alumni Hop (Informal) in the Gymnasium, Alumni Hall

SUNDAY, JUNE 10

10:30 A.M. Baccalaureate Services, Alumni Hall P.M. Fraternity reunions and sorority teas

MONDAY, JUNE 11

9:30 A.M. Commencement Exercises, University Oval Commencement Ball, Gymnasium 8:00 P.M.

Degrees Conferred

College of Agriculture

BACHELOR OF SCIENCE

IN AGRONOMY

Russell Manley Bailey	Waterville
Hope Ellouise Craig	Presque Isle
Delmar Boynton Lovejoy	Mexico
William Ernest Schrumpf	Farmington
Charles Preston Stone	Fort Fairfield
Eldwin Atwell Wixson	Winslow

IN ANIMAL HUSBANDRY

Neil Sinclair Bishop	Bowdoinham
Lloyd Edmund Boynton	Liberty
Omar Keith Gibbs	.Livermore Falls
Ardron Bayard Lewis	Springfield
Edmund Lyman Otis	Bridgton
Russell Elmer Whitcomb	Readfield

IN BOTANY

Blair	Cochran	WilsonBath	1

IN DAIRY HUSBANDRY

Milton Lewis Bradford	Brooks
Carroll Roswell DeCoster	Norway
Russell Eaton Foster	Augusta
Harry Arthur Grant	Leeds Center
Lucian William Keniston	Industry
Kenneth Cousins Lovejoy	Mexico
Nelson Laird Manter	Wayne
Maxwell Millett Peabbles	.South Portland
John Wentworth True	.New Gloucester

DEGREES CONFERRED

IN ENTOMOLOGY

Delbert Leonard Moody......Waldoboro

IN FORESTRY

Gifford Belcher Adams	Boothbay Harbor
Fred Guilford Ames	Bridgton
Thomas Bates	Bath
Anthony Arthur Beeaker	Rumford
Albert Benson	
Kingsbury Putnam Bragdon	York Village
Philip Edwin Farley	Westbrook
Allen Wright Goodspeed	Upper Montclair, N. J.
Carroll Edmund Hackett	New Vineyard
Roy Severy Hathaway	North Jay
Wilson Sidney Hayden	Augusta
George Frederick Kehoe	Rutland, Mass.
Hugh Cecil Lloyd	
James Carnahan MacDonald	Newton, N. J.
Laurence Henderson Murdoch	Mexico
Charles Richard Murphy	Rumford
Ralph Gerald Newman	Auburn
Paul Thomas Orienti	
Henry Allen Scribner	
Benedict Edward Tolvo	

IN HOME ECONOMICS

Caroline Delphene Andrews	Hallowell
Ruth Densmore	Portland
Frances Snow Fuller	Hallowell
Katherine Lavonia Grindal	Sargentville
Mabel Lewin Kirkpatrick	Orono
Katherine Whitney Larchar	
Jessie Mildred Lawrence	Solon
Agnes May Masse	East Vassalboro
Agnes May Masse Ruth Christine Palmer	
	Pittsfield
Ruth Christine Palmer	Pittsfield Brewer
Ruth Christine Palmer Barbara Ellen Pierce	Pittsfield Brewer North Anson
Ruth Christine Palmer Barbara Ellen Pierce Helen Virginia Smith	Pittsfield Brewer North Anson Bangor

IN HORTICULTURE

Frederick Barker Chandler	Machias
Frank Joseph Paterno	.Rumford

College of Arts and Sciences

BACHELOR OF ARTS

IN BIOLOGY

Henry Madison Bearse	Gloucester, Mass.
Vincent Harold Beeaker	Rumford
Horace Edminister Bell	Dennysville
Matthew Edward Highlands	North Berwick
Izora Mae Hutchinson	Old Town
Fred Leonard Moulton	Lynnfield, Mass.
Verna Norton	Caribou
James Winfield Reed	Oxford
John Harold Smith	Mattawamkeag
Roscoe Everett Staples	Welchville
Vinetta Mae Whitehouse	Unity

IN CHEMISTRY

Lawrence Mark Cutler	Town
Louis CohenSwampscott,	Mass.

IN ECONOMICS AND SOCIOLOGY

Lynwood Keaton Betts	Dover-Foxcroft
John Carroll Caldwell	Island Falls
Elizabeth Matilda Collins	Bangor
Wray Clifton Conro	Attleboro, Mass.
Edward Matthew Curran	Bangor
George Franklin Dudley	Portland
Elwood Hovey Gartley	Houlton
Charles Grant Hamilton	Mount Vernon
Archie Edward Kamenkovitz	Bangor
Bernard Daniel Knowles	North New Portland
John Bradford McCobb	Camden
Forrest Whitaker Meader	Albion
Frederic Coleman Murphy	Van Buren

DEGREES CONFERRED

Carroll Prentiss Osgood	Orono
Byron Benjamin Porter	Caribou
Hallowell Reynolds Rogers	Bath
Otto Adolph Swickert	Greenville
Fred Harold Thompson	Millinocket
Gordon MacKay Walker	Millinocket
Elmer Ham Ward	Hartland
Lester Leighton Wass	Southwest Harbor
Matthew Williams	Guilford
Hollis Henry Wooster	Rockport

IN EDUCATION

Eugene A	Albert	HofstedI	Portland,	Oregon
Harry S	tanley	Newell	Old	Town
Harry W	Villard	Peakes		Milo
Stewart	Edwar	d Walsh		Bangor

IN ENGLISH

Helen Frances Benner	Bangor
Elisabeth Alice Krum	Bangor
Hazel Beatrice Lindsay	Brewer
Mary Agnes McGuire	.Stonington
Carolyn Anne Withington PeasleySouth	Gouldsboro
Laura Green Pedder	Bangor

Lillian Rudman	B	Bang	şor
Clara Elizabeth Sawyer	Sea	.rsp	ort
George Frederick Scribner	0;	akla	ind
Marguerite Joyce Stanley	Berlin,	N.	H.
Dorothy Margaret Steward	-		

IN FRENCH

Hilda Freda Ginsberg	.Old Town
Delia Houghton	
Mildred Frances Keirns	Portland
Ernest Henry Legere	Bangor
Alice Mae Muzzy	.Greenville
Evelyn Clara Smith	Orono
Nicholai Frederick Wessell	. Stockholm
Hope Keith Williams	Auburn

IN HISTORY AND GOVERNMENT

David Wilbur Fuller	.Southwest Harbor
Dorothy Esther Spearin	Fort Fairfield
Frederick Shaw Youngs	Bangor

IN LATIN

Erdine Faye Besse	Albion
Addie May Brown	Seawall
Mary Katherine Burns	Portland
Edna Sylvia Cohen	Bangor
Irene Alice Emerson	Brewer
Thelma Adelaide Perkins	Old Town
Lois Eleanor Springer	Danforth

IN MATHEMATICS

Harold Everett Bowie	Lisbon Falls
James Stuart Branscombe	Northeast Harbor
Victoria Cecelia Casper	Bangor
Andre Emerson Cushing	Bangor
Wallace Austin Cutting	Andover
Sydney Sumner DeBeck, Jr	Franklin
Francis Garrett Fitzpatrick	Houlton
Rebecca Friedman	Augusta
Mary Sadie Levine	Gardiner
Moses Nanigian.	

Moses Nanglan	••••••••••••••••••••••••••••••••••••••
Wendell Phillips Noble	Blaine
John Stanley Ross	Rumford
Sherman Hall Rounsville	Fairhaven, Mass.
Gilbert Merrill Titcomb	Portland

IN PHYSICS

IN PSYCHOLOGY

Neale Jury Hubbard......Bar Harbor

IN SPANISH

Dorothy Margaret	Bell	Bangor
Eleanor Margaret F	Fitzherbert	.Orono

DEGREES CONFERRED

Muriel Kirkpatrick Folsom	Orono
Harold Anthony Medeiros	Vanceboro
Alma Edna White	.St. Johnsbury, Vt.

College of Technology

BACHELOR OF SCIENCE

IN CHEMISTRY

Ralph Arthur	Hill	Orono
Emery Louis S	St. Pierre	Auburn

IN CHEMICAL ENGINEERING

Harold Franklin Bamford	.Newburyport, Mass.
LeRoy Elmer Brown	Pittsfield
Granville Clifford Chase	Baring
Keith Philip Hunnewell	Bingham
Joseph Fred Keyes	Bucksport
Laurence Walker Porter	Yarmouth
Theodore Joseph Zak	Gill, Mass.

IN CIVIL ENGINEERING

Donald Mills	Allen	Bangor
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Earl Freeman Bennett	Auburn
Wallace Blake	Brownfield
Warren Paul Carson	Island Falls
Linwood Sumner Cotton	Cumberland Mills
Fred Mann Dodge	Bridgton
Harlord Stuart Frost	
Harry Robert Hartman	Bar Harbor
Whitcomb Haynes	Ellsworth
Waldo Willis Hill	
Harold Edwin Ingalls	Bridgton
Arthur Johnson Kelley	Jonesport
George Nelson Martin	
Howard Richard Norton	Winslow
Charles Fulton Parker, Jr	South Windham
George Eben Power	Brewer
Wesley Eugene Preble	Old Town

William S. Reid	Augusta
Harley Marston Riley	Livermore Falls
Ralph Turner Robertson	
Simear Ferris Sawyer	Bangor
David Harvey Stevens	Guilford

IN ELECTRICAL ENGINEERING

James Madison Bridges	Orono
George Raymond Chappell	Saco
Luke Eldridge Closson	Danbury, Conn.
Warren Emery Creamer	Bangor
Wallace Thomas Donovan	Lewiston
Clarence Melville Flint	Roslindale, Mass.
Elwood Earl Folsom, Jr	Bingham
Lee Fenderson Hescock	Gardiner
Elton Wright Jones	East Haven, Conn.
Roger Edward Lewis	Oakland
Norris James Linnell	Bangor
Lawrence Everett Lymburner	Bar Harbor
Gerald Avery Magill	Caribou
Frank Wesley Marr	Island Falls
Ernest Woodman Merchant	Walnut Hill
Leland Adelbert Merchant	Eastbrook
Raymond Hewes Morrison	Bangor
Clarence Edward Otis	Oakland
Robert Folsom Scott	Old Town

Arthur	Albert	Smith	Freeport
Philip	Harold	Trickey	Bangor

IN MECHANICAL ENGINEERING

William Balch	Hudson, Mass.
Charles Miller Harris	Augusta
Donald Jordan Huot	Bangor
Clarence Roland Libby	Wayne
Albert Marcus Parker	Orange, N. J.
Linwood Frank Snider	Orono

Degree Out of Course

DEGREES CONFERRED

Advanced Degrees

MASTER OF ARTS

IN EDUCATION

Harold Lewis Ballou (B.A., Maine, 1926).....Orono College Preparation for Subject Combinations of Secondary School Teachers

IN ENGLISH

IN MATHEMATICS

Elementary Geometry Propositions Proved by Coördinate Methods

IN PHYSICS

Earl Maynard Dunham (B.A., Maine, 1924).....Orono Some Electrical Properties of the Aluminum Cell
Elizabeth Anna Harkness (B.A., Maine, 1923).....Veazie An Investigation of the Magnetic Flux in a Circular Coil

MASTER OF ARTS IN EDUCATION

Ralph Gilbraith Oakes (B. Pd., Maine, 1918)......Freeport Quality of Instruction in Consolidated as Compared with Rural Schools

MASTER OF SCIENCE

IN CHEMISTRY

Chyung Eun Kim (B.S., Maine, 1926).....Rang Chyun, Korea Rag Cooking with Caustic Lime and Soda and Effect of Alpha Cellulose in Mixed Papers

IN CHEMICAL ENGINEERING

CHEMICAL ENGINEER

CIVIL ENGINEER

Henry Francis Hill, Jr. (B.S., 1922) Albany, N.Y.

ELECTRICAL ENGINEER

Kenneth Leigh Cyphers (B.S., 1924) Irvington, N. J.

MECHANICAL ENGINEER

Vinton Orris Harkness (B.S., 1922) Waltham, Mass.

Certificate

IN THE TWO-YEAR COURSE IN AGRICULTURE

Honorary Degrees

Ralph Owen Brewster, Doctor of Laws Mary Ellen Chase, Doctor of Letters Abraham Lincoln Tasker Cummings, Master of Arts Marshall Buckland Downing, Doctor of Engineering James Adrian Gannett, Master of Arts David Willard Leavitt, Master of Arts Edwin Godfrey Merrill, Doctor of Laws

DEGREES CONFERRED

The following received commissions as Second Lieutenant of Infantry, Officers' Reserve Corps

> James Vincent Bradley, Jr. James Madison Bridges Francis Garrett Fitzpatrick Elwood Earl Folsom, Jr. Lee Fenderson Hescock Philip Earl McSorley Nelson Laird Manter Carroll Prentiss Osgood Roscoe Everett Staples Robert Pierce Thaxter Stewart Edward Walsh Russell Elmer Whitcomb Garfield Grant Young



Catalog of Students

Major subjects are indicated as follows: Ae. Agricultural Education, Ag. Agronomy, Agr. Agriculture, An. Animal Industry, Bc. Biological Chemistry, Bl. Biology, Ch. Chemistry, Ch.Eng. Chemical Engineering, Ce. Civil Engineering, Dh. Dairy Husbandry, Es. Economics, Ed. Education, Ee. Electrical Engineering, Eh. English, En. Entomology, Eng. Engineering (Course not specified), Fm. Agricultural Economics and Farm Management, Fy. Forestry, Fr. French, Gm. German, Hy. History, He. Home Economics, Ht. Horticulture, Lt. Latin, Ms. Mathematics, Me. Mechanical Engineering, Pb. Public Speaking, Pc. Physiological Chemistry, Ph. Poultry Husbandry, Pl. Philosophy, Pp. Plant Pathology, Py. Psychology, Ps. Physics, Sp. Spanish and Italian. Chemistry in College of Arts and Sciences is indicated by Ch.A. Botany and Entomology in College of Agriculture are indicated by Bot.Ag. and En.Ag.

GRADUATE STUDENTS*

Aiken, Mary Pauline, B.A., Eh.	Orono	25 Myrtle Street
Maine, 1926		
Babb, Myron Francis, B.S., Ht.	Orono	Park Street
Maine, 1926		TT 1 1 T
Brickett, Elsie Furbush, B.A., Eh.	Scranton, Pa.	University Inn
Bates, 1925		
Bryan, Jessie French, B.A., Eh.	Orono	8 Juniper Street
Wellesley, 1910		
Cabrera, Louis, B.A., Sp.	Orono	University Inn
Dubuque, 1927		
Carroll, Margaret McManus, B.A., Eh.	Bangor 182	York Street, Bangor
Maine, 1911		
Clough, Ruth Thorndike, B.A., Eh.	Bangor	209 State St., Bangor
Goucher, 1925		
Cohen, Ada, B.A., Gm.	Bangor	
Maine, 1926	50 East Su	immer Street, Bangor

*Candidates for the master's degree who are registered in the summer session are listed on page 291.

GRADUATE STUDENTS

Dow, George Farrington, B.S., Fm. Maine, 1927	Orono	382 College Road
Fassett, Frederick Gardiner, Jr., B.A., M.A., Eh.	Orono	13 Pond Street
Colby, 1923, 1927		10 36'11 6
Hyland, Fay, B.S., Fy. Michigan State, 1925	Orono	10 Mill Street
Jenkins, Chester Albert, B.S., Ch. Dartmouth, 1911	Orono	56 Forest Avenue
Jones, Elton Wright, B.S., Ee. Maine, 1928	East Haven, Cor	nn. 95 Mill Street
Kelley, Maurice Willyle, B.A., Eh. Oklahoma, 1927	Orono	University Inn
Lavery, Grant Garnsey, B.S., Ps. Middlebury, 1928	Orono	37 Pond Street
Lovejoy, Delmar Boynton, B.S., Bl. Maine, 1928	Orono	A Γ P House
Osgood, Beulah Elizabeth, B.S., He. Maine, 1926	Orono	134 College Road
Pedder, Laura Green, B.A., Eh. Maine, 1928	Haverhill, Mass.	Balentine Hall
Scamman, William Francis, B.A., Eh. Maine, 1908	Orono	84 College Road
Schmitter, Lester Lyle, B.A., Es. Penn, 1927	Richland, Iowa	29 Pond Street
Schrumpf, William Ernest, B.S., Fm. Maine, 1928	Farmington	67 Mill Street
Simpson, Clifford Oliver, B.A., Py. Harvard, 1927	Orono	120 Main Street
Sloane, Alvin, B.S., Ed. Tufts, 1921	Orono	180 Main Street
Sparrow, Theron Alonzo, B.S., Ed. Maine, 1924	Orono	11 Main Street
Stewart, John Emmons, B.A., M.A., Ms. Maine, 1927, 1928	Orono	Park Street
Watson, Harry Dexter, B.S., Me. Maine, 1918	Orono	38 Forest Avenue
Wedell, Carl Havelock, B.Ph., Py. Vermont, 1927	Lynn, Mass.	University Inn
Willey, Arthur Osgood, B.S., Me. Maine, 1924	Orono	θ X House

Wilson, Blair Cochran, B.S., Bl.	Bath	$\Phi \Gamma \Delta$ House
Maine, 1928		
Wixson, Eldwin Atwell, B.S., Fm.	Winslow	207 H. H. Hall
Maine, 1928		
Woodbury, Kathryn Schanley, B.A., Fr.	Orono	74 North Main Street
Elmira, 1924		

SENIORS

Adams, Reginald Burns, Ch.Eng. Airoldi, Louie, Fy. Allen, Rutillus Harrison, An. Ames, John Burton, Me. Anderson, Kenneth Otto, Bl. Arey, Harold Lee, Fy. Ashworth, Jessie Ellen, Es.

Bailey, Dean Raymond, Bl.
Bamford, Ida Maxine, Es.
Bartlett, Edwina Marion, Hy.
Bassett, Clarence Eaton, Hy.
Baston, Whitney Mountfort, Ee.
Bates, Herbert Jasper, Dh.
Beckler, Philip Arthur, Bl.
Berger, Shirley, Hy.
Bixby, George Donald, Fy.
Blaisdell, Theodore Jewett, Ph.
Blank, Edward Arthur, Bl.

Madison	$\Phi M \Delta$ House
Lee, Mass.	Φ K House
North Jay	A Г P House
Bridgton	305 H. H. Hall
Sanford	Φ K Σ House
Vinalhaven	Σ A E House
Orono	88 North Main Street

Bangor 61 Congress	Street, Bangor
Orono 32	Forest Avenue
Hampden	Balentine Hall
Old Town	K \Sigma House
Walnut Hill	B K House
Smyrna Mills	K Σ House
Bethel	Φ H K House
Bangor 57 Pine	Street, Bangor

Bond, Charles Rogers, Jr., Ee. Bostrom, Frank Peter, Me. Bourne, Harrison Gardner, Jr., Ch.Eng. Bowen, Edith, Fr. Bowerman, Geneva Helen, Hy. Bradford, Dorothy Louise, He. Bradley, James Vincent, Ch.A. Brockway, Donald Wilson, Es.

Brown, Bettina, He. Brown, Harold Ellra, Ms. Brown, Kenneth Theodore, Ht. Newburyport, Mass. A T Ω House York Village 52 Park Street Lowell, Mass.

51 North Main Street В Ө П Ноизе Bangor R.F.D. #7, Bangor Bangor Δ T Δ House Arlington, Mass. Bangor Mt. Vernon House Edgewood, R. I. Balentine Hall South Portland North Hall Millinocket Φ K House South Hadley, Mass. Σ A E House Old Town North Hall Λ X A House Bath В Ө П Ноизе Mexico

SENIORS

Brown, Ruel Ernest, Dh. Bryenton, Beatrice Elizabeth, Lt. Buck, Mary Catherine, Eh. Buckminster, Porter Hatch, Ee. Burke, Ralph Arthur, Ag. Burke, Wyatt Clinton, Ce. Burrill, Gerald Francis, Eh. Burwood, Gilbert Kenneth, Fy.

Buzzell, James Chandler, Me.

Callaghan, Claire Agnes, Lt. Cassidy, William Adrian, Bl. Chandler, Robert Flint, Jr., Ht. Clapp, Rozella, Eh. Coggins, Arthur Russell, Ee. Colby, Oayma Joshua, Ht. Collins, Caroline Ella, Eh. Coltart, George Lester, Me. Condon, Kenton Rich, Ch.Eng. Conlogue, Everett Freeman, Bl. Cooper, Elston Francis, Ee. Crandon, Harry Drew, Ch.Eng. Crimmins, George William, Ed.

Daggett, Ruth Elizabeth, Sp.

Bradley	Bradley
East Millinocket	Balentine Hall
Bangor Mt.	Vernon House
Sedgwick	54 Pine Street
Fort Fairfield	Σ N House
Boothbay Harbor	412 Oak Hall
Bangor Y.N	I.C.A., Bangor
Windsor Locks, Co	nn.
4	05 H. H. Hall
Fryeburg	$\Phi K \Sigma$ House

South Brewer Balentine Hall Bangor 363 State Street, Bangor New Gloucester B Θ Π House Sedgwick Mt. Vernon House Malden, Mass. В Ө П Ноизе South Paris 412 H. H. Hall Bangor Balentine Hall Brewer K Σ House Sabattus A T Ω House Portland 103 Oak Hall North Haven $\Phi \Gamma \Delta$ House Portland Σ X House Brunswick Φ K House

Bangor

Mt. Vernon House

Daggett, Vaughan Merrill, Ce. Damm, Barbara Elizabeth, Es. Davis, Frances Garland, Sp. Davis, Lyman Arthur, Fy. Dean, Leon Arthur, Eh.

DeBeck, Phyllis Phenelia, Sp. Desjardins, George Eloi, Ee. DeWolfe, Harold Albert, Me.

Downing, Kenneth Warren, Ee.

Drew, Donald Ellsworth, Ch. Dudley, Kenneth Rogers, Ee.

Eldridge, Colby Sylvester, Me.

 $\Sigma \times House$ Bangor Old Town Old Town 24 Oak Street Saco Monson B K House Bangor 164 Forest Avenue, Bangor **Balentine** Hall Franklin Old Town Old Town St. Stephen, N. B. 7 Pleasant Street Hampden Highlands $\Phi \Gamma \Delta$ House K Σ House Patten Milford Σ X House Rumford Stillwater

Elliot, Harold Kittredge, Ht. Elliott, Herbert Everett, Ce. Ellis, Fred Hazen, Fy. Ellis, Harold Eastman, Ee. Ernest, Raymond William, Fy.

Finks, Sarah Diana, He. Fitzhugh, Raynor Keese, Ms. FitzMorris, Herbert Richard, Ce. Flynn, John Edward, Bl. Fogg, Charles Emerson, Ch.Eng. Foggia, Frank, Es. French, Robert Mantor, Es.

Gagné, Charles Philippe, Eh. Gamage, Vernon Alfred, Ht. Garey, Hollis Wilbur, Ee. Garland, Carl Gordon, Es. Giddings, Paul Dudley, Bl. Gilliland, Lucile Cartmell, Eh. Gilmore, Albert Field, Ch.Eng. Gonyer, Lawrence Anthony, Me. Goudy, Gerald Cameron, Ee. Gray, Lyman Scribner, Fy. Greenlaw, Ruth Hortense, Sp. Grindell, Arthur Leavitt, Es. Guice, John Lawrence, Hy.

Rumford Point
Kezar Falls
York Beach
Augusta
Orono
Portland
Bronxville, N.Y.

A Γ P House
Φ M Δ House
Δ Τ Δ House
Φ K Σ House
4 Myrtle Street

Portland	North Hall
Bronxville, N.Y.	A T Ω House
Roslindale, Mass.	Σ N House
Bangor 104 Fourth	Street, Bangor
Yarmouth	S A E House
Woodland	$\Sigma \Phi \Sigma$ House
Solon	Σ X House

Orono Litchfield Easton Augusta Augusta Orono Turner Orono York Village Fryeburg Masardis Lincoln Orono 48 Pine Street
A Γ P House
23 Park Street
K Σ House
B θ Π House
23 Park Street
7 Park Street
7 Park Street
17 Middle Street
Δ Τ Δ House
Φ Κ Σ House
Balentine Hall
A X A House

Hale, James Elliott, Ce.
Hall, Clifton Wass, Fy.
Ham, Thelma Virginia, Lt.
Hamilton, Harold Polleys, Fy.
Hammond, Gordon Elvington, Fy.
Harmon, Albert Merrill, Ms.
Harribine, Cecil James, Hy.
Harris, Oren Leroy, Ee.
Hartley, William Joseph, Ms.
Hartwell, Mary Josephine, Eh.
Harvey, Thomas Gray, Bl.
Haskell, Ida Mae, Ms.
Hatch, Loranus Pendleton, Ce.
Hawkes, Esther Jones, Es.

Camden East Machias Rangeley Baring Orono Portland Portland Newport Monmouth Lewiston Old Town Fort Fairfield Lincoln Camden Kennebunk 43 Broadway

H K House
H K House
Balentine Hall
M Δ House
M Δ House
32 Myrtle Street
Δ Τ Δ House
23 Pond Street
Σ Φ Σ House
H K House
Old Town
Γ Δ House
College Road
Σ X House
Balentine Hall

SENIORS

Hawkes, Marian, Hy.
Hikel, Philip Solomon, Ee.
Hill, Allison Kincade, Bl.
Hodgman, Nicholas George, Ee.
Hoos, Sarah Irene, Fr.
Horslin, Carroll Eugene, Ee.
Horton, Elmer Graham, Ee.
Hurley, Charles Jeremiah, Hy.
Hussey, Madelene Eleanor, He.
Hutchins, Burleigh Maurice, Ee.

Jackson, Eunice Mildred, He. Jasper, Rufus Guy, Ce. Johnson, Barbara, Eh.

Kelley, Edward Gilman, Ch.A. Kennard, Evelyn Doris, Eh. Kimball, Harold Vinton, Ph. Kinney, Loomis Stevens, Es. Kneeland, Beulah, He. Knox, Clayton Tainter, Hy.

Lambert, John Henry, Jr., Fy. Lancaster, Virgil Mark, Fy. LaPlant, John Raymond, Ce. Larrabee, George Everett, Bl.

Kennebunk	Balentine Hall
Millinocket	209 H. H. Hall
Bangor	S A E House
Portland	A X A House
Old Town	Old Town
Portland	307 Oak Hall
Fall River, Mass.	A T Ω House
Ellsworth	Φ K House
Augusta	North Hall
Cape Porpoise	304 H. H. Hall

Portland	North Hall
Auburn	Stillwater
Woodfords	Balentine Hall

Orono	110	North	Ma	un	Street
Bangor	14 Sa	avage	Stree	et, I	Bangor
Auburn		20	4 H	. H	I. Hall
Osterville	, Ma	s s .	ΒΘ	Π	House
Lincoln]	Baler	ntin	e Hall
Rumford		đ	5 M	Δ	House

Lowell, Mass.	ΦΚΣ	House
Pittsfield	ФНК	House
Greenville	ΑΤΩ	House
Presque Isle	ФНК	House

Larsen, Karl Davis, Ps.

Lawler, Thomas Lawrence, Ee. Leach, Sibyl Hortense, Hy. Leadbetter, Ramona Marie, Lt. Ledder, Abraham Elias, Ch.Eng. Libby, Abram Joseph, Ch.Eng. Lincoln, Alice Revere, Fr. Lipsky, George Allen, Gm. Look, Russell Meserve, Ch.Eng. Lopaus, Hector Roscoe, Es.

Lowell, John Herbert, Ch.A. Lowell, Winfield, Ch.A. Lucas, James Howard, Ce. Luce, Israel Gilbert, Ms. Bangor

167 Forest Avenue, Bangor θ X House Brewer South Brewer Balentine Hall Belfast Balentine Hall Portland 110 H. H. Hall Bangor R.F.D. #7, Bangor Houlton Balentine Hall Bangor 278 Main Street, Bangor Madison Φ M Δ House North Weymouth, Mass. B Θ Π House Gardiner Φ H K House Gardiner Φ H K House York Village Σ A E House

Old Orchard

 Δ T Δ House

Lydiard, Keith Bennett, Me. Lynch, John Buckley, Hy.

McCart, Stanley Oswald, Ee. McCracken, Elizabeth Anne, Hy. McDonald, Ellsworth, Me. MacDougall, James Archibald, Es. McGary, Geneva Fiske, Sp. MacKenzie, Zelda Helene, Eh. MacLaren, Harold Leland, Ed. MacNaughton, Victor Boynton, Fy. McPheters, Byron William, Fy. McPheters, Mildred, He. McSorley, Philip Earl, Me.

Mahoney, George Francis, Es. Mahoney, Mary, Eh. Maloney, Ellen Elizabeth, Sp. Mann, Robinson, Fy. Marsh, Philip Merrill, Eh. Marvin, Katherine, He. Mason, Irvin Carroll, Bot.Ag. Merrill, Bradford Francis, Es. Merrill, Richard Allan, Ht. Meservey, Ruth, Hy. Miniutti, Firovanti Oswald, Es. Moore, Helen, Ms. Morrison, Ralph Fred, Ee. Morse, Merton Francis, Ee. Mosher, Wendall Earl, Dh. Moulton, Robert, Me. Mudgett, Perley Herbert, Ch.Eng. Murray, Harry Lee, Ht. Mutty, Carlista Louise, Fr.

Bedford,	Mass.
Bangor	

Eastport Brewer East Sebago Milo Bangor Lincoln Washburn Bangor Bangor Bangor Guilford

Ellsworth Biddeford Bangor Houlton South Portland Kenncbunk Locke's Mills Madison Augusta Bangor North Berwick $\Delta T \Delta House$ $\Phi K House$

304 H. H. Hall Brewer
112 H. H. Hall
23 Park Street
Balentine Hall
Balentine Hall
Δ Τ Δ House
Φ Μ Δ House
Φ Κ Σ House
Λ Γ Δ House
δ Mill Street
Balentine Hall

Balentine Hall K Σ House 67 Mill Street North Hall 309 H. H. Hall Σ X House Σ A E House Balentine Hall Δ T Δ House

Nealley, Willis Grafton, Bl. Nevells, Frederick Leroy, Ms. Niles, Winfield Scott, Bl. Noddin, George Adelbert, Ch. Noddin, Harold Ellis, Me. Noyes, Worth Lankton, Fy.

Greenville Jct.	Balentine Hall
Milford	Milford
Gardiner	Φ II K House
North Jay	A X A House
Hiram	Φ H K House
Kenduskeag R.F	.D. #7, Bangor
Hampden Highland	$s \Sigma A E$ House
Old Town	Old Town
South Berwick	Φ M Δ House
South Portland	Φ M Δ House

South Derweit	
South Portland	Φ M Δ House
Rumford	A X A House
Bangor	В Ө П House
Bangor 39 Cottage	Street, Bangor
Orono 60	Forest Avenue

SENIORS

O'Connor, Roderic Comins, Me. Osgood, Catharine Chase, Eh.

Palmer, Robert William, Ce.
Parks, Robert Dwight, Fy.
Parsons, Frank Preble, Ed.
Parsons, Merton Stanley, An.
Payson, Harold Tyree, Fy.
Percival, Maple Ismay, Hy.
Peterson, Charles Hartley, Ee.
Phillips, Ralph Linwood, Es.
Pierce, Harold Trefethen, Ce.
Pillsbury, Clarence Dunham, Ms.
Poley, Ramona Faye, Ms.
Poole, Lyman Curtis, Fy.
Powell, Harold Neally, Ch.Eng.
Pritham, Carroll Fred, Ee.
Purinton, William Andrew, Bl.

Race, Cecil Raymond, Ee. Rawson, Lovell Cook, Fy. Raye, George Wesley, Ee. Reed, Mary Florence, Eh. Richardson, Guy Harold, An.

Ridlon, Emory Francis, Ch.Eng. Robbins, Arlene, Py. Robey, Versal Fairfield, Ed. Robinson, Mary Elizabeth, Es. Rogers, Charles Hall, Me. Rose, George Edgar, Ht.

Bangor	В ӨП House
Ellsworth	Balentine Hall
Dover-Foxcroft	$\Delta T \Delta$ House
Jamaica Plain, Mas	s. $\Phi \Gamma \Delta$ House
South Berwick	Δ T Δ House
South Paris	Α Γ P House
Brooks	102 H. H. Hall
Dexter	Balentine Hall
Yarmouth	Σ X House
Bangor 725 Unior	n Street, Bangor
South Portland	ΣX House
Phillips	Stillwater
Berlin, N. H.	Balentine Hall
Pemaquid	Φ M Δ House
Orono 7	5 Forest Avenue
Greenville Jct.	47 Mill Street
Bangor 15 Ohio	Street, Bangor

Abbot Village	$\Sigma \Phi \Sigma$ House
Uxbridge, Mass.	\Sigma N House
Eastport	304 H. H. Hall
Orono	24 Pierce Street
Fort Fairfield	
Farn	n Boarding House
Kezar Falls	S A E House
Lincolu	Delentine Hall

Rosen, Lawrence, Es. Rubin, Abraham Louis, Bl. Russell, Harold Edison, Me.

Saba, Anne Marie, Ms. Sawyer, George Webster, Ch.Eng. Sawyer, Priscilla, Sp. Scott, Harriett Henderson, He. Shea, William Francis, Jr., Ed. Shirley, Noyes Donald, Fy. LincolnBalentineHallBangor206 H. H. HallBangorBalentineBalentineHallBoothbayHarbor $\Sigma \ A \ E \ House$ West Springfield,Mass. $\Phi \ M \ \Delta \ House$ Woodland402 H. H. HallBangor312 French Street,BangorA T Ω House

Old TownOld TownMillinocket Φ M Δ HouseBangorMt. Vernon HousePresque IsleNorth HallOld Town Δ T Δ HouseFryeburgA Γ P House

Shiro, Evelyn Irene, Fr. Simone, Anthony Charles, Fy. Small, Donald Harvey, Me. Smith, Andrew Orcutt, Ag. Smith, Archibald Van, Ee. Smith, Gordon, Ch.Eng. Spencer, Elizabeth Lucille, Ed. Staples, Carleton Dearborn, Ee. Stevens, Clyde Aurelius, Fy. Stevens, Elmer Albert, Fy. Stewart, Frank Raymond, Ms. Stinson, Clyde Clifton, Ms. Stone, Maurice, Ch.Eng. Strout, Willard Jerome, Ce. Stuart, Harold Jennings, Ch. Stuart, Howard Holmes, Ch. Sturgis, Guy Hayden, Jr., Bot.Ag. Sullivan, Edward Dennis, Ce. Swift, Orville Thomas, Ee. Sylvester, Calista Elizabeth, Hy. Sylvester, Elwyn Greene, Ee. Sylvester, Harvard Leighton, Fy.

Taft, Earl Davison, Fy. Templeton, Samuel Joseph, Me. Thompson, Joseph Mariner, Ch.Eng. Thompson, Richard, Me. Thompson, Sadie Jane, Bl. Thurston, Guy Linly, Me. Tracy, Donald Edward, Py. True, Carl Dudley, Ee. Tucker, Clarence Arthur, Ce. Turner, Oscar Treat, Dh.

Old Town	Old Town
Lee, Mass.	Φ K House
Rockland	Φ K Σ House
York Village	81 Mill Street
Steuben	Δ T Δ House
Bangor 66 Court	Street, Bangor
Bangor	Balentine Hall
Eliot	$\Sigma \Phi \Sigma$ House
Bethel	25 Grove Street
Bethel 2	25 Grove Street
Rockland	\Sigma N House
Stonington	Φ H K House
Bangor 239 Pine	
Milo	$\Phi \Gamma \Delta$ House
Thomaston, Conn.	B K House
Thomaston, Conn.	B K House
Portland	Σ A E House
Bangor 231 Third	l Street, Bangor
Waltham, Mass.	$\Phi K \Sigma$ House
Jefferson Mt.	Vernon House
Deer Isle	A X A House
Etna	A X A House

Uxbridge, Mass.	Σ N House
Greenville	69 Mill Street
Fryeburg –	Φ K Σ House
Southbort	Σ A E House

Waldron, James Neal, Fy. Walker, Myrtle Margaret, He. Weatherbee, Edward Albert, Hy. Weaver, Freida Pearl, Fr. Webb, Oscar Earl, Ag. Webber, Henry Norton, Ch.Eng. Webster, Alice Burr, He. Welch, Andrew Bartlett, Dh. Southport Millinocket Bethel Bangor Yarmouth Cherryfield Livermore Dexter Wiscasset Lincoln Old Town

Houlton

Bangor

Bradley

Farmington

2 A E House
Balentine Hall
Φ M Δ House
Σ A E House
B Θ Π House
55 Park Street
B Θ Π House

Φ Γ Δ House
North Hall
Σ Ν House
Old Town
Θ Χ House
Σ Ν House
Balentine Hall
Bradley

JUNIORS

Wellman, Meredyth Carolyn, Sp.
Wheeler, Maurice Robert, Eh.
Wheeler, Whitney Long, Es.
White, Edwin Turner, Ee.
White, Erma Elizabeth, Sp.
White, Frances Evelyn, Sp.
Whittier, George Albert, Ee.
Wilkins, Roger Carson, Gm.
Winch, Stanley Gordon, Me.
Winter, George Henry, Fy.
Wiseman, Herbert Goodwin, Ch.Eng.
Woodward, Merwyn Farrington, Dh.
Worthley, Herbert Morrison, Es.

Young, Kenneth Henry, Fy.

Auburn Balentine Hall Portland 411 H. H. Hall Tenant's Harbor Φ M Δ House Wiscasset 101 Oak Hall **Balentine Hall** Monroe Old Town Old Town Milford $\Phi \Gamma \Delta$ House K Σ House Houlton Sanford $\Lambda X A House$ A T Ω House Bangor Newport **A X A House** A Γ P House Fryeburg Brewer Brewer

Brighton, Mass.

ΣX House

JUNIORS

Abbott, Lyman, Jr., Es. Allen, Herbert Stanley, Fy. Ames, Merton Howard, Me. Anderson, Miriam Sylvia, Fr. Andrews, Kathleen Doris, Bl. Ankeles, George, Es. Armitage, Perley Everett, Me.

Old Orchard Bridgton Northport Monson Hallowell Peabody, Mass. Sanford Σ N House 25 Grove Street A T Ω House Balentine Hall Balentine Hall 402 H. H. Hall Θ X House

Ashworth, James Peery, Hy. Atwood, Jack Sanden, Ee. Austin, Gilbert Ellsworth, Me. Avery, Dexter Leslie, Me.

Babb, Frances Harriet, Eh.

Bagley, Alice Houghton, Bl. Bagley, Lauren Roberts, Me. Bailey, Edna Madison, Eh. Bailey, Emory Parker, Ee. Baker, Prescott Bors, Bl.

Baker, Willard Parker, Jr., Ch.Eng. Bancroft, Robert Alexander, Hy. Barnes, George Henry, Ag.

Orono	88	North	Ma	ain	Street
Bangor			K	Σ	House
Springvale			θ	X	House
Woodland		Σ	Φ	Σ	House

Bangor

300 Hammond Street, Bangor Portland Balentine Hall Augusta $\Sigma A E$ House Wiscasset Mt. Vernon House Bangor 61 Congress Street, Bangor South Dartmouth, Mass.

	Σ A E House
Millinocket	$\Phi K \Sigma$ House
Cumberland Mills	K Σ House
Fort Fairfield	B K House

Barrows, Eunice Dorothy, He. Batchelder, John William, Ch.Eng. Bates, Louise Augusta, Hy. Bates, Niran Carrollton, Ce. Beasley, Doris Louise, Bl. Beckwith, Milledge Merrithew, Hy. Berenson, Bernard Martin, Hy. Berry, Leaman Staples, Ee. Bessey, Harold Edwin, Ce. Black, Edmund Franklin, Es. Blaisdell, Brenna Hope, Fr. Blaisdell, William Winthrop, Ce. Bolan, Ella Crowell, Bl. Booker, James Francis, Ch.Eng. Boothby, Laurence Buzzell, An. Bowman, Charlotte Rose, Bl. Bradford, Richard Sylvester, Es. Branch, John Balch, Hy. Brooks, Arthur Leon, Dh. Brooks, Winston Holmes, Ce. Buckley, Lucile Walsh, Bl. Burnham, Richard Trittene, Fy. Burns, Bruce Balentine, Fy. Burr, Angela Aileen, Lt. Burr, Charles Gilbert, Bl. Burr, Lois Adelaide, Fr.

36 Myrtle Street Orono 38 Middle Street Charleston Portland 164 College Road Calais M. C. A. Building **Balentine Hall** Old Torm Σ X House Caribou 310 H. H. Hall Portland $\Sigma \Phi \Sigma$ House Stillwater 405 H. H. Hall Oakland Φ H K House Bailey's Island Kenduskeag Balentine Hall Franklin 303 H. H. Hall Balentine Hall Winterport Gardiner Λ X A House Livermore Falls $\Sigma \Phi \Sigma$ House Bangor Balentine Hall Carmel 60 Park Street Portland Φ H K House South Paris A Γ P House College Road Sanford Balentine Hall Bangor Φ K House Machias Waterville B K House East Millinocket Balentine Hall East Millinocket θ X House Old Town Old Toren Dover-Foxcroft Δ T Δ House Dover-Foxcroft Δ T Δ House 301 Oak Hall Addison **Balentine Hall** Seal Harbor Bangor 16 North High Street, Bangor Σ N House Bar Harbor Σ A E House Augusta Holyoke, Mass. Φ K House North Reading, Mass. 67 Mill Street Balentine Hall Biddeford Upper Gloucester Mt. Vernon House

260

Butler, Gerald Whitney, Ee. Butler, Roland Dwighton, Ee.

Caler, Horace Lester, En.Ag. Campbell, Marion Aline, Ms. Chandler, Thurlow Abbott, Ee.

Chilman, Arthur Lester, Ee. Churchill, William Philip, Ch.Eng. Claffey, Francis Joseph, Bot.Ag. Cohen, Harold, Bl.

Cole, Evelyn Virginia, Lt. Colomy, Dora Louise, He.

JUNIORS

Comber, Joseph Patrick, Bl. Connelly, Daniel Elmer, Dh. Corbett, Ralph Ashton, Dh. Coughlin, Charles Gerald, Me. Coyne, Russell Donald, Ee. Crockett, Alton Eugene, Ee. Crowell, John Herbert, Es.

Crowley, Mary Cecelia, Lt.

Croxford, Horace Alcander, Ch.A.

Culley, Dorothy Mary, Ms. Cuozzo, George Vincent, Me. Cutler, Harold Masha, Gm. Cutting, Charles Ambrose, Ee. Cutts, Robert, Ce. Cyr, Roland Joseph, Ce.

Daley, William Henry, Me. Davis, John Gardner, Sp. DeCoster, Howard Otis, Ht. DeGagne, Marthe Cleo, Gm. Dodge, George Clyde, An. Dolan, Clement Donworth, Me. Donahue, Stewart William, Ce.

	The Forks	412 H. H. Hall
1	Hartland	В Ө П House
S	South Paris	θ X House
ł	Rockland	104 H. H. Hall
_	Auburn	Λ X A House
1	North Bridgton	Σ A E House
_	Bangor	
	•	olk Street, Bangor
1	Bangor	
	0	nd Street, Bangor
ŀ	Hampden Highlan	· · · · · ·
_		M. C. A. Building
Ŀ		ex Street, Bangor
	Bangor	K Σ House
	Old Town	Old Town
	Andover	Φ H K House
_	Kittery Point	Σ X House
	Waterville	7 Pleasant Street
Ū		
E	Bangor	$\Phi \Gamma \Delta$ House
	Saco	212 H. H. Hall
Λ	Vorway 80 N	Iorth Main Street
	Portland	Balentine Hall
7	Troy	302 Oak Hall
_	North Bucksport	312 H. H. Hall
-		

Donald, Howard Frederick, Ch.Eng. Drisko, Ralph Leslie, Ch.Eng. Dunn, Paulene Marguerite, Eh.

Eisnor, Doris Grace, Eh. Estey, Horace Scott, Ee.

Fisher, Dean Henry, Bl.
Floyd, Clara Gertrude, Hy.
Flynt, Horton, Es.
Flynt, William Norcross, Me.
Foster, Wilbur Keith, Ce.
Freeman, Leonard Knapp, Ce.
Frost, Stanley Chapman, Fy.
Furbush, Guy Langtry, Es.

Franklin, Mass. Σ N HouseHarrington202 H. H. HallBangor

Presque Isle

135 Forest Avenue, Bangor

θ X House

Bangor56 Larkin Street, BangorEllsworthB K House

Bangor	14	Eaton	Pl	ace	e,]	Bangor
New Share)N		Ba	ler	ntir	e Hall
Augusta			B	θ	Π	House
Augusta			B	θ	П	House
Rumford C	Cent	ter	Λ	X	A	House
North Win	dha	z m	Φ	Η	K	House
Portland			Σ	A	E	House
Livermore	Fa	lls		Σ	Ν	House

Gavin, John Martin, Fy. Getchell, Charles Munro, Eh. Gillespie, Arthur Merton, En. Gillis, Hugh Allan, Eh.

Gilmore, Verrill Byron, Ee. Goodell, William Heagan, Jr., Ee. Gowell, Earle Rayworth, Me. Grindle, Louise Higgins, Py. Gunnarson, Herbert John, Ms.

Hall, Pauline, Es.
Hanscom, Edwin Chapin, Es.
Harding, Harold Duncan, Ee.
Hardy, Charles Carleton, Fy.
Harkins, John Wilfred, Hy.
Harvey, Kingdon, Hy.
Haskell, Kenneth Richardson, An.
Hatch, Arthur Vaughn, Es.
Hatch, Frieda Wardwell, Hy.
Heald, Ruth, He.
Hebert, Hector Alphy, Fr.
Heckman, Albert Carlisle, Me.
Herrick, Edward Arthur, Ph.

Higgins, Barbara, He. Higgins, Elmer Robinson, Ee. Hill, Vera Isabelle, Lt. Hinkley, Kenneth Abbott, Fy. Hoff, Charles Edward, Me. Holt, Edward Barry, Jr., Ee. Hooper, Charles Keith, Ee. Horne, Donalson Elmer, Eh. Hunt, Edward DeHart, Ch.Eng. Hutchinson, Jenny Robinson, He. Hutchinson, Lewis Waldo, Me.

Madison	48 Pine Street
Oakland	A X A House
Meddybemps	Φ H K House
Bangor	
347 Hammond	Street, Bangor
Brewer	Σ Φ Σ House
Searsport	Φ H K House
South Portland	S A E House
Bangor Mt.	Vernon House
Camden	108 Oak Hall
Kennebunk	Balentine Hall
Newtonville, Mass.	$\Phi \Gamma \Delta$ House
Trinidad, B. W. I.	\Sigma N House
Oakland	K \Sigma House
Lewiston	Φ K House
Fort Fairfield	Σ N House
Deer Isle Farm H	Boarding House
Belfast	θ X House
Castine	Balentine Hall
Union	Campus
Van Buren	θ X House
Bangor 48 Vernon	Street, Bangor
Bangor	
37 Blackstone	Street, Bangor

Inman, Harold Howard, Hy. Ireland, Richard Porter, Ee.

Jackson, Seth Purvis, Ce. Johnson, Helena Evelyn, Es.

College Road Wiscasset Orono 391 College Road Rangeley Stillwater Kennebunkport • K House Corinna A T Ω House Camden Λ X A House Belfast θ X House Coshocton, Ohio Φ K Σ House 27 Park Street Orono Old Town Old Town

Balentine Hall

Dennysville

Orono 40 Middle Street Dover-Foxcroft 209 H. H. Hall

Old Town Old Town Bar Harbor Mt. Vernon House

JUNIORS

Jones, Martling Barnet, Ch.Eng. Jones, Winslow Larrabee, Me.

Kent, Milton Francis, Ee. Kingman, David Raymond, Es.

Knight, Frank Addison, Fy. Knight, Harland Lee, Fy.

Lait, Saul, Es. Lamoreau, Fred Lincoln, Ms. LaPlante, Antonio, Me. Larrabee, George Franklin, Es. Lathrop, Russell Vernard, Es. Laughlin, Kenneth Alexandria, Bl. Lewis, Ermond Fred, Eh. Lewis, Marguerite Louise, Eh. Lindsay, Francis Costello, Ms. Lloyd, Llewellyn Frederick Gatze, Hy. Loveitt, Lillian Frances, Hy. Loveitt, Rosella Adeline, Hy. Lowell, Johnson Lombard, Es. Ludden, Kenneth Scott, Ce.

McAlary, Edward Nichols, Es. MacCaffrey, John Philip, Ed. McCann, Frank William, Ce. McCollum, Lloyd, Ee. McComb, George Wallace, Fy. MacDougall, Ardyth Peabody, Eh. McIntire, Clifford Guy, Ag. MacKenzie, John Finlay, Me. McLaughlin, Blanche Evelyn, He. MacLaughlin, Helen Amanda, Es.

Gardiner	ФНКHouse
Portland	$\Phi \Gamma \Delta$ House
Woodland	$\Phi K \Sigma$ House
South Hanover,	Mass.
	Φ H K House
Brunswick	A Γ P House
South Paris	$\Phi M \Delta$ House
Old Town	Old Town
Presque Isle	Φ H K House
York Village	Φ K House
Rockwood	Φ M Δ House
Ipswich, Mass.	$\Delta T \Delta$ House
Portland	ΦKΣHouse
Springfield	306 H. H. Hall
Stillwater	Stillwater
West Seboois	θ X House
Rumford	Λ X A House
	Mt. Vernon House
	Mt. Vernon House
Lee	Φ H K House
Bangor	$\Phi \Gamma \Delta$ House
Waterville	48 Pine Street
Patten	$\Sigma A E House$

Patten Z A E FIOUSE Poughkeepsie, N. Y. K > House West Jonesport 205 H. H. Hall θ X House Westfield, N. J. Milo 23 Park Street Perham A Γ P House Rumford Λ X A House Mapleton North Hall Brewer Brewer North Waldoboro **•** H K House Augusta Σ A E House Millinocket Φ K Σ House Machias $\Phi \Gamma \Delta$ House Hudson, N. Y. $\Phi \Gamma \Delta$ House Bethel **Balentine Hall** Hampden Highlands Balentine Hall

Mank, Steven Thomas, Ce. Mansur, Norwood Walter, Es. Marr, David Stillman, Ee. Marsh, Robert Brewster, Fy. Martin, Charles Bertrand, Ce. Mason, Elizabeth Ayers, Bl. Matthews, Rachel, Ms.

Matthews, Rebecca, Hy.

Mayers, Harry Ripley, Ee. Mayo, Dorothy Arnold, Sp. Means, Horace William, Ce. Modery, Albert Joseph, Ce. Moran, John William, Es. Morris, Harry Monroe, Ag. Morrison, John Mace, Ch.Eng. Moyer, Harrison Landis, Me. Mullaney, Ellen Mary, Ms.

Munce, Richard Thomas, Bl. Murphy, Elizabeth Florence, Bl. Murphy, Maxwell Kerr, Ee. Muzzey, Arnold Kingsley, Ch.A.

Nason, Rita Marie, Hy.

Nickerson, Thelma Pauline, He. Nims, Carleton Ermon, Fy. Norwood, Erna Christine, Fr. Nottage, Henry Clarence Webb, Ce.

Otto, Irene Gustava, Ch.A.

Palmer, Edward Everett, Jr., Ce.

Hampden Highlands

	Balentine Hall
Hallowell	A X A House
Orono	11 Pond Street
Sedgwick	410 H. H. Hall
Orono	87 Park Street
Brewer	$\Phi \Gamma \Delta$ House
Fort Fairfield	A Γ P House
Belfast	S X House
Caribou	$\Phi \Gamma \Delta$ House
Bangor	
72 Garlan	d Street, Bangor
D 01 D'	1 Classed Designed

Bangor81 BirchStreet, BangorVan BurenBalentineHallEastportB K HouseSouth Berwick63 Forest Avenue

Hampden Highlands

	Mt. Vernon House
Bar Harbor	Balentine Hall
Keene, N. H.	202 Oak Hall
Rockland	Old Town
Solon	304 H. H. Hall
Covington, Ky.	10 Pine Street

Palmer, John Marsh, Me.
Payson, Milford Adelbert, Fr.
Pearce, Franklin Earl, Fy.
Pelletier, Anthony Damas Joseph, Bl.
Perkins, Glenn Harold, Ch.Eng.
Perkins, Ralph Lorenzo, Ms.
Pike, Sarah Moody, He.
Plummer, Henry Almon, Fy.
Pratt, Horace Asa, Ce.
Pratt, Sylvester Mason, Fy.
Prescott, Robert Ball Edes, Bl.

Quinn, Mary Theresa, Eh.

Ramsdell, George Albert, Ce.

Braintree, Mass. B H II House Braintree, Mass. **B Θ Π** House 409 H. H. Hall Rockport Malden, Mass. A T Ω House θ X House Lewiston Sanford **A X A House** North Waterford 203 H. H. Hall Bridgton Balentine Hall South Paris $\Phi M \Delta$ House Hinckley 34 Pine Street Oxford B Θ Π House Jamaica Plain, Mass. $\Phi \Gamma \Delta$ House

Bangor Balentine Hall Melrose Highlands, Mass. Δ T Δ House

JUNIORS

Rand, Philip Herbert, Ee. Randall, Herbert Eldon, Bl. Reed, Albert Lester, Bl. Richardson, Harry Levi, Dh. Ricker, Elizabeth Louise, He. Roberts, Lewis Pollard, Ag. Roney, Jeanette Marie, Hy. Ross, Dorothy Morton, Fr. Roulston, Royal Allison, Ch. Runnells, Minnie Emily, Ms.

Savage, Allen Estabrooks, Ce. Sawyer, Elmer Philip, Me. Schlosberg, Charles, Bl. Schneider, Bernard, Ce. Scott, Robert Miller, Ee.

Scribner, Russell Orin, Ce. Seavey, Wilson Grant, Me. Shea, Thelma Colleen, Pb. Smith, Lyndell Emma, Eh. Smith, Thomas Boyd, Hy. Spalding, Prescott Oulton, Ce. Spear, Ross Patterson, Ms. Stalmuke, Michael Harold, Fy. Stanley, Edward Kenneth, Es. Stanley, John Theodore, Me. Stern, Edward, Es.

Augusta	Φ K Σ House
Wakefield, Mass.	$\Phi \Gamma \Delta$ House
Bradford, Mass.	K Σ House
Lee	Φ H K House
Turner	46 Main Street
Sherman Mills	θ X House
Woodfords	Balentine Hall
Auburn	Balentine Hall
Malden, Mass.	Stillwater
Howland Mt.	Vernon House

Wells	A T Ω House
Milbridge	$\Phi \Gamma \Delta$ House
Boston, Mass.	310 H. H. Hall
Brookline, Mass.	College Road
East New Portland	1

203 H H Hall

	200 II. II. IIan
Bangor	\Sigma N House
Kennebunkport	\Sigma N House
Bangor	Balentine Hall
Brewer	Brewer
Washburn	211 Oak Hall
Wells	Stillwater
Rockport	52 Park Street
Rumford	Φ K House
Bethel	Φ M Δ House

Stickney, Warren Atwood, Ee. Stover, Charles Raymond, Ch.Eng. St. Pierre, Romeo Napoleon, Ce. Stymiest, Emerson Ames, Ce. Sutherland, Lindsay Wendell, Es. Sweatt, Athalie Pearl, Fr. Sweatt, John Henry, Ps. Sylvester, Fred Alton, Ht.

Theriault, Martin Harold, Ms. Tolman, Edward Wesley, Es. Toothaker, Elwood Sawyer, Hy. Towne, Franklyn Albert, Es.

Cranberry Isles Φ H K House Bangor 416 Hancock Street, Bangor Brozenzeille ΣX House Eastport B K House Auburn 40 Middle Street Rumford 409 Oak Hall Brunswick K Σ House Andover Balentine Hall Andover 7 Park Street Mars Hill K Σ House Millinocket 6 Myrtle Street Carroll Φ H K House Bath $\Phi \Gamma \Delta$ House Norway θ X House

Trueworthy, Leon Eugene, Ce. Tsiales, Panayiotis Theodore, Ee. Turner, Willard Francis, Ce.

Vail, Eugene Libbey, Es. Vaughan, Basil Wyman, Ce. Veazie, Katherine Abbie, Ms. Veysey, Vivian Maude, Bl. Vose, Edward Rich, Ch. Vose, Milton LeRoy, Ee. Wadsworth, Paul, Ph. Walker, John Douglas, Es. Warren, Margaret, Eh. Wasgatt, Asa Vernon, Pb. Wasgatt, Martha Gray, He. Waterman, Jennie Annis, Eh. Webber, Kenneth Robert, Ee. Webster, Arvard Vernon, Hy. Wescott, Lee Eugene, Fy. White, Otto Rupert, Ee. Whitman, Franklin Augustus, Ch.Eng. Wiggins, James Warren, Ce. Williams, Carrie Janet, Fr. Williams, Edwin Ruthven, Ce. Wilson, Reginald Burgis, Es.

Mattawamkeag 5 Main Street Manchester, N. H. **∑ X** House North Reading, Mass.

 $\Phi \Gamma \Delta$ House

Manchester, N. H. $B \Theta \Pi$ House 60 Park Street Orono Mt. Vernon House Rockland Mercer Mt. Vernon House East Eddington East Eddington Eastport **A X A House** Hiram M. C. A. Building Millinocket A T Ω House Balentine Hall Bangor Σ N House Bar Harbor Mt. Vernon House Rockland Balentine Hall Buxton 307 H. H. Hall Bowdoinham 107 Oak Hall Dark Harbor Φ H K House Sebago Lake $\Sigma \Phi \Sigma$ House Woodland 406 H. H. Hall Benton **Θ** X House Houlton Balentine Hall Stonington $\Phi \Gamma \Delta$ House Guilford Σ A E House Bangor 4 7 7 - --- TT

Whistow, Elwood Comm, Me.	Asniunu	
Wiswell, Carlton Francis, Ce.	South Brewer	South Brewer
Wood, Maurice Harland, Ce.	Newcastle	A X A House
Wooster, Joel Philbrook, Ce.	North Haven	404 H. H. Hall
Wright, Francis Clair, Es.	Bangor 263 Fren	ch Street, Bangor
York, Gerald, Ce.	Loon Lake	Φ M Δ House
Zakarian, Lavon, Eh.	Portland	K Σ House

SOPHOMORES

Adams, Melvin Walls, Es.	Millinocket	Φ K Σ House
Anderson, George Henry, Ee.	Gorham	Σ X House
Anliker, Walter James, Ee.	Bath	$\Phi \Gamma \Delta$ House

SOPHOMORES

Annis, Roger Lee, Ch.Eng. Armstrong, John Norris, Ch.Eng. Avery, Marion Gertrude, Eh.

Bangs, Olaf Augustus, Me. Barker, David Emmons, Es. Barrows, Franklyn Foster, Eh. Barton, Erma Patty, Hy. Baston, Lawrence Goodwin, Agr. Bates, William Lewis, Ce. Beal, William Mitchell, Es.

Beasley, Helen Wales, Py. Bennett, Paul Edwin, Fy. Bernard, Leo Romeo, Ee. Bickmore, Theodore Roland, Fy. Billings, Stacy Ford, Me. Bird, Richard Philbrook, Es. Bither, Margaret Harriet, Eh. Blaisdell, Maynard Preble, Me. Blanchard, Dorothy Aileen, Eh. Blanchard, Richard Carleton, Fy. Blanchard, Richard Francis, Agr.

Blocklinger, Warren Stanley, Es. Bohnson, John Charles, Jr., Ee.

North Berwick	ΣΝ	House
Saco	ВӨП	House
Old Town	Old	Town

54 Pine Street North Lubec Dover-Foxcroft В Ө П Ноизе West Hartford, Conn. **\Sigma** X House Butler, Pa. Balentine Hall North Berwick Δ T Δ House B K House Abbot Melrose Highlands, Mass. Σ X House Mt. Vernon House Old Torem A T Ω House Auburn 102 Oak Hall Lewiston 408 H. H. Hall Stockton Springs North Berwick **B** K House **B** θ Π House Rockland Houlton Balentine Hall 7 Summer Street York Village Brewer Brewer Λ X A House Portland Cumberland Center Farm Boarding House Portland В Ө П House Portland AT A HOUSE

Bradstreet, Ernest Raymond, Hy. Breton, Clovis, Jr., Ee. Brockway, Philip Judd, Eh. Brofee, Linwood Harold, Agr. Brooks, Carl Ara, Ce. Brooks, Eugene Burgess, Agr. Brown, Charles Augustus, Ee. Brown, Roger Johnson, Me. Brown, William Wirt, Jr., Ch.E. Bryant, Beryl Ellison, Hy.

Bryant, Edward Creighton, Es.

Budden, Erma Frances, He. Burnham, Aubert Porter, Ee. Burnham, Harry James, Ch.

Δ 1 Δ House
Σ N House
205 Oak Hall
\Sigma A E House
Σ A E House
47 Mill Street
В Ө П House
B K House
B K House
Old Town
Street, Bangor
s.
$\Phi \Gamma \Delta$ House
Balentine Hall
Old Town

Saco

312 H. H. Hall

Burr, Alice Evelyn, He.

Eastport

Balentine Hall

Campbell, Jean, Es. Candage, Oscar Franklin, Eh. Carey, Louis Edmond, Ee. Carll, Sarah Elizabeth, Eh. Carter, Mary Rich, Lt. Cartwright, Nelson Frederick, Ce. Caulfield, Donald Sweeney, Fy. Chaplin, Stuart Carlysle, Ee. Cheney, Linwood Goodwin, Py. Chopelas, George Christopher, Es. Clark, Fred Bernard, Ch.Eng. Clark, Lester Martin, Fy. Clarke, David Maitland, Agr. Cleaves, Charlotte Elizabeth, He. Cleaves, Ward Bartlett, Bl. Clem, Peter Richard, Agr. Coffin, Clarine Mildred, Eh. Cogswell, Charles Luman, Fy. Cohen, Philip Rupert, Bl. Coles, Clifford Harry, Fy. Conant, Helena Gladys, Eh. Conant, Thornton French, Ch.Eng. Cookson, Howard Norman, Ch.A. Copeland, Eunice Emma, Bl. Crandlemire, Mary Pauline, He. Crocker, Paul Leavitt, Eh. Crocker, Thomas Edward, Ee. Crosby, Luthan Albert, Ee. Crozier, Freda Sara, Lt. Cullinane, William Francis, Ch. Curtis, Clifton Edward, Me. Curtis, Doris Buford, Py. Cushman, Charles Farnham, Me. Cushman, Parker Grindell, Ce. Cutler, John Levi, Eh.

Brewer	Balentine Hall
Surry	$\Phi M \Delta$ House
South Portland	Φ K House
Gorham	37 Pine Street
Thomaston	Balentine Annex
Auburn	301 H. H. Hall
Pawtucket, R. I.	410 Oak Hall
Cornish	Φ H K House
South Berwick	\Sigma N House
Malden, Mass.	3 Park Street
Saco	Φ K Σ House
Ellsworth	\Sigma N House
Saybrook, Conn.	302 Oak Hall
Sangerzülle	Balentine Hall
Addison	θ X House
Norwood, Mass.	309 H. H. Hall
Bangor	148 College Road
Old Town	Old Town
Bangor	55 Park Street
Westfield, N. J.	A T Ω House
Old Town	Old Town
Skowhegan	K \Sigma House
Dyer Brook	308 H. H. Hall
Brewer	Balentine Hal
Vanceboro	Balentine Annex

Danforth, Morton Eugene, Fy. Daniels, Charles Frederick, Jr., Es.

Davidson, Jennie Marjorie, He.

Balentine Annex V anceboro 112 Oak Hall Vanceboro Φ K House Portland 102 H. H. Hall Milo **Balentine Hall** Brownvnlle Φ K House Auburn Atlantic, Mass. Σ X House Balentine Hall Winterport 203 Oak Hall Portland Σ X House Ellsworth Bangor 261 Essex Street, Bangor

BrewerBrewerWellesley Hills, Mass.Σ Φ Σ HouseOld TownOld Town

SOPHOMORES

Davis, Harry Godfrey, Es. Davis, Ralph Latimer, Ce. Day, Linwood Blanchard, Ce. Desjardins, Jules Anthony, Me. Devine, Malcolm Edward Chisholm, Ee. Dixon, Alton Mills, Me. Donovan, Francis James, Es. Doughty, Earl Waterman, Ce. Dow, Frances Winnifred, Bl. Downes, Frances Cole, Bl. Draper, William Maynard, Fy. Drinkwater, Vivian Marie, Eh. Dunlap, William McKee, Fy. Dunn, Charles Loring, Fy. Durgan, Louise Dorothy, Eh.

Edgecomb, Kenneth Benjamin, Ce. Elliot, James Edmond, Me.

Elliott, Paul Marshall, Ch. Elmore, John Henry, Ee. Emerson, Alberto Charles, Ch.

Evans, Philip Lancaster, Ce.

Fales, James Nelson True, Me.

Mechanic Falls Σ X House Wellesley Hills, Mass. **\Sigma** X House Φ H K House Shirley Mills Old Town Old Town Portland Λ X A House R.F.D. #8, Bangor Bangor Lewiston Φ K House Portland 29 Spencer Street Portland Mt. Vernon House **Balentine Hall** Winterport Hopedale, Mass. $\Phi M \Delta$ House Brewer Brewer Canonsburg, Pa. 7 Pleasant Street Portland **B** θ Π House Lubec 38 Grove Street

Limington Φ H K House North Andover, Mass. A T Ω House Beverly, Mass. $\Sigma \Phi \Sigma$ House Augusta θ X House White Horse Beach, Mass. Σ N House South Portland 107 Oak Hall Thomaston K House B Jonesport Λ X A House Brookline, Mass. College Road Eastport A T Ω House Norway Φ K Σ House Bangor Mt. Vernon House Detroit Stillwater Gorham 3 Park Street Fort Fairfield **A** Γ **P** House Portland Balentine Hall Roslindale, Mass. Σ N House Harrington 227 Main Street Bangor 450 Hammond Street, Bangor Bar Harbor 403 Oak Hall Biddeford **\Sigma** N House

Farnsworth, George Alton, Ce. Farrar, George Otis, Me. Farris, Willard Austin, Ee. Favor, Henry Hayes, Ch.Eng. Fellows, Margaret, Es. Field, George Marion, Hy. Files, Morton Clifton, Fy. Findlen, Paul Joseph, Agr. Fineberg, Fanny, Lt. Flint, Ogden, Ee. Flynn, Horace Foster, Fy. Fogg, Donald Herbert, Eh.

Foley, William, Ch.Eng. Foss, Richard Staples, Me.

Fox, Evelyn Cora, Fr.

Fraser, Jessie Landy, Eh. French, Lucille Adeline, Eh. Frisbie, James Austin, Hy. Frost, Gerald Oliver, Ee. Füger, Frances Margaret, Eh.

Gallison, Elmer Herbert, Me. Garland, David Carson, Ee. Gatcomb, Ernest Kenneth, Me. Giffin, Alvin Hitchcock, Me. Glew, Oscar Mathias, Fy. Goode, Robert Donald, Es. Goodwin, Paul Russell, Fy. Gordon, Scott Howard, Ee. Gorham, George William, Es. Gowans, Horace Robert, Ee. Grace, John deBaptist, Ce.

Gray, Lawrence Milton, Fy. Greely, Edward Joseph, Agr. Greene, Dorothea Louise, Py. Gross, Doris Lane, Eh. Groves, Laurence Wade, Bl. Guilfoil, Myrilla Nickerson, Eh. Guptill, Edwin Charles, Ee.

Bangor

163 Parkview	Avenue, Bangor
Bangor 44 Spring	g Street, Bangor
Solon	46 Main Street
Harrison	S N House
Monmouth	Σ A E House
Cape Elizabeth	24 Oak Street

Vanceboro 410 H. H. Hall Waterville 304 Oak Hall East Machias 407 H. H. Hall Δ T Δ House Bristol, Conn. 412 H. H. Hall Vanceboro Bangor 228 Palm Street, Bangor South Berwick 207 Oak Hall Φ K Σ House Portland Σ N House Houlton Arlington, Mass. Σ A E House East Boston, Mass. 12 Adams Street, Bangor Φ K Σ House Fryeburg 112 H. H. Hall South Portland Balentine Hall Pembroke Balentine Annex Stonington $\Delta T \Delta$ House East Millinocket Balentine Hall Augusta East Baldwin 34 Pine Street

Hackett, William Felton, Ee.

Hall, Frederick Augustus, Es. Hamblet, William Paige, Me. Hanson, Edward Fellows, Me. Hargreaves, George Milton, Hy. Harwood, Waldo Earle, Jr., Fy. Hasey, Ruth Arlene, He.

Haskell, Dorothy Bowker, He. Haynes, Newell Perley, Ce. Heald, Francis Edmund, Ee. Heald, Franklin Varney, Me. Henderson, Donald Bishop, Ee. Bangor

11 Chatham Street, Bangor θ X House Lewiston Lawrence, Mass. Δ T Δ House 96 Otis Street, Bangor Bangor New Bedford, Mass. $\Phi K \Sigma$ House **A** X A House Portland Bangor

15 Poplar Street, Bangor 24 Pierce Street Lee 7 Summer Street Ellsworth Madison 25 Grove Street Buckfield 7 Summer Street 208 H. H. Hall Bath

SOPHOMORES

Hickson, Paul Edward, Ch.A. Higgins, Leslie Alonzo, Ee. Hoar, Clinton Herbert, Me. Hoar, Walter Damon, Agr. Hodson, Elmer Chandler, Fy. Holbrook, Arthur Capen, Ee. Holdridge, Leslie Rensselaer, Fy. Holmes, Jacob Shuman, Ce. Holmes, Richard Weatherbee, Es. Hopkins, Berniece Augusta, Hy. Horne, Cecil William, Ce. Howard, Elwin Thornton, Me. Howes, Henry Frank, Ee. Huff, Evelyn Christine, He. Hunt, Barbara Simms, Bl. Huston, Donald Philip, Ee.

Jackson, Katherine Owen, Ch.Eng Jarrett, Paul Francis, Bl. Jensen, William Henry, Jr., Ce. Johnson, Phyllis Moore, He. Jones, Alonzo Leighton, Ch.A. Joy, Darius Dicky, Jr., Agr.

Kazutow, John, Me. Keeney, Kenneth Andrews, Fy.

Bangor Φ K House Bar Harbor **B** θ Π House East Machias Commons Rangeley 40 Grove Street Roslindale, Mass. B K House Holbrook, Mass. Φ M Δ House Norwich, Conn. 10 Beech Street Belfast 2 Forest Avenue Lincoln 10 Mill Street **Balentine Hall** Camden Berwick **B** θ Π House Dix field $\Phi M \Delta$ House Ashland, Mass. 405 Oak Hall Bingham Mt. Vernon House Woodfords Balentine Hall Woodfords Φ M Δ House

Houlton Stamford, Conn. South Portland Portland Berwick Addison Balentine Hall Δ T Δ House Σ A E House 46 Main Street Φ M Δ House 201 Oak Hall

Bangor 224 State Street, Bangor New York, N. Y. $\Sigma A \in House$

Keirstead, Kathryn Jean, Ms. Kelleher, Harold Eugene, Hy. Kilby, Merrill Eastman, Ch. Kneeland, Phyllis Amanda, Hy.

Kneeland, Verne Hill, Es. Kosciolek, Stephen Frank, Bl. Krieger, Louis Joseph, Ee.

Lamb, Norton Haskell, Es. Lang, Katherine Bradley, Bl. Lapworth, Kenneth Ervin, Fy. Larrabee, Frederick Thompson, Es. Lear, Raymond Kenneth, Ch.Eng. Lemoine, Grace Alice, Py. Levensalor, Kenneth Lynwood, Es.

Westfield Balentine Hall Bangor 245 Third Street, Bangor Dennysville 407 H. H. Hall West Roxbury, Mass. **Balentine** Hall Princeton Φ H K House Auburn Φ K House Old Town Old Town Portland **B θ Π** House Belfast 172 Main Street Hopedale, Mass. $\Phi M \Delta$ House Presque Isle Φ H K House Bar Harbor θ X House Kennebunk Balentine Hall Dover-Foxcroft Λ X A House

L'Heureux, Germaine Jeannette, Fr. Libby, Donald Prentice, Es. Libby, Paul Twambly, Me. Lincoln, Marguerite Helen, Hy. Liscomb, Helen Elsie, He.

Livingstone, Elizabeth, Bl. Lobikis, Vitolia, Ps. Longley, Rolly Marie, Eh. Lovely, Donald Carson, Ce. Ludwig, Margaret Evelyn, Fr. Lufkin, Arthur Raymond, Jr., Es. Lyon, Isabella Boltz, Hy.

MacCormick, Donald Munroe, Hy. MacCormick, Malcolm Young, Pb. McGuire, Francis Stephen, Ce. McKenney, Helen Fuller, Lt. MacKenzie, William Donald, Bl. McLoon, Mary Lilian, Eh.

Mahoney, Eleanor Margaret, Eh. Maillet, Lionel Arthur, Es. Marsh, Raymond Edward, Ce. Marshall, Donald Forbes, Bl. Marshall, Harrison Greenlaw, Ee. Matluck, Harry, Me. Merrifield, Mildred Ellis, Hy. Merrill, George Osborne, Es. Miller, Ronald Irving, Es. Modes, Goldie, Eh. Mooers, Marjorie Helen, Lt. Morse, Robert Cushman, Es. Morton, Paul, Fy. Muncy, Kenneth Randlett, Fy. Murphy, William, Es. Lewiston Biddeford Biddeford Washington Salisbury Cove Balentine Hall **A** X A House **A** X A House Balentine Hall

7 East Summer Street, BangorWinchester, Mass.Balentine HallRumfordBalentine HallPlymouth25 Myrtle StreetHoultonΣ X HouseWashingtonBalentine HallMedford, Mass.A T Ω HouseBar HarborMt. Vernon House

Orono	57	North	Main	Street
Orono	57	North	Main	Street
Stonington		۵	ΤΔ	House
Lincoln		Ba	alentin	e Hall
Marlboro, M	ass	s.	Φ Γ Δ	House
Houlton		B	alentin	e Hall
Biddeford		В	alentir	ne Hall

Juurjoru	Dalchtine Han
Rumford	Φ K House
South Portland	204 Oak Hall
Portland	Φ K Σ House
Deer Isle	311 Oak Hall
	110 TT TT TT. 11

Nagle, Richard Waterman, Es. Nason, Charles Philip, Hy. Nason, Paul Elder, Me. Nickerson, Victor Wasson, Me.

Portland 110 H. H. Hall Balentine Hall Washington 108 Oak Hall Yarmouth $\Sigma \Phi \Sigma$ House Brewer **Balentine Hall** Portland 90 Wiley Street, Bangor Bangor $\Phi \Gamma \Delta$ House Marlboro, Mass. 5 Main Street Barre, Mass. **A** T Ω House Plymouth Bangor 126 Lincoln Street, Bangor

Providence, R. I.15 Water StreetYork Village Φ K Σ HouseHoulton Θ X HouseMalden, Mass. Δ T Δ House

SOPHOMORES

O'Connor, Charles Eugene, Pb. O'Loughlin, James Patrick, Es.

O'Neil, Leo Francis, Ed.

Packard, George Victor, Es. Page, Richard Tucker, Ce. Painter, Stanley LeRoy, Agr. Parkhurst, Hazel Jennie, Eh. Parlin, Lewis Elnathan, Agr.

Patterson, Irving Robinson, Agr.

Payson, Helen Josephine, Fr.
Perkins, Alfred Warren, Ee.
Perkins, Lois Emily, Eh.
Perkins, Olive, Eh.
Pickering, Emery Walker, Ee.
Pike, Helen, Eh.
Porter, Norman Augustus, Eh.

Pratt, Hartwell Lemont, Ee. Prince, Ralph Nelson, Ch.Eng. Purinton, Viola Nellie, He.

Rand, Scott Jay, Agr.

Bangor 2 A E House Bangor

264 Mount Hope Avenue, BangorLewistonΦ K House

Lewiston Waterville Orono Woodfords New Sharon

Wilton

 $\begin{array}{c} B \ \Theta \ \Pi \ House \\ \Sigma \ X \ House \end{array}$

College Road

Balentine Hall

Farm Boarding House Hampden Highlands Hampden Highlands

Tram	Juch Inginanus
Belfast	Balentine Hall
North Brooksville	Φ H K House
West Brooksville	Balentine Hall
Kennebunk Beach	Balentine Hall
Deer Isle	311 Oak Hall
Fryeburg	Balentine Hall
West Roxbury, Ma	<i>ss</i> .
	$\Phi \Gamma \Delta$ House

				I IIOUJC
East Polan	ıd		312 O	ak Hall
Kittery			ΣΣ	K House
Bangor	15	Ohio	Street,	Bangor

204 H. H. Hall

Ranney, June Kathryn, He. Ray, Medley Porter, Ee. Richardson, Clara Pray, Bl.

Riley, Madeliene Alden, He.

Roberts, Charles Alonzo, Ch. Roberts, John Alden, Es. Roberts, Mildred Elizabeth, Sp. Roche, William David, Bl. Rubin, Philip, Ch.Eng. Rufo, Frank, Ce. Ryan, Timothy James, Ce.

Sansoucy, Jerome Aime, Bl. Sawyer, Daniel James, Es. Presque Isle 25 Myrtle Street Calais **B K House** Jewett City, Conn. 33 Forest Avenue Livermore Falls Mt. Vernon House Woodfords Δ T Δ House Alfred Φ K Σ House Easton Balentine Hall Marlboro, Mass. 29 Pond Street Bangor 312 French Street, Bangor Mattapan, Mass. Φ K House Portland Φ K House Lewiston Φ K House Jonesport K **\Sigma** House

Scheffer, Sebastian Louis, Ee.

Schiro, Julia Adele, Gm. Schultz, Joseph, Gm. Schwarzman, Theodore Wolfgang, Ce. Scott, Dorothy Marie, He.

Segal, Henry Israel, Bl. Seymour, Theodore Roland, Ch.E. Sezak, Samuel, Hy. Shedd, Harold Justine, Jr., Ce. Silverman, Florence Harriet, Eh.

Smith, Jeannette Leighton, Eh. Smith, Melzor Stetson, Agr. Smith, Raymond Antone, Fy.

Smith, William Eaton, Ch.Eng. Smith. William Hudson, Ee. Snowden, Sylvia Sarah, Py. Snyder, Bernard Lemont, Ee. Solander, Arvo Axel, Ce.

1.4

1105 Th 10 1 Spear, Parker Hudson, Es. Spencer, Lincoln Orrin, Ee. Spiller, Beatrice Margaret, Ms. Springer, Vance Gerald, Es. Spruce, Wilfred Lewis, Ee. Spurling, Nelson Eliot, Ce. Stearns, Pauline Janet, Eh. Stevens, Lester Leigh, Jr., Es. Stevens, Marjorie Elizabeth, Lt. Stewart, Marion Irma, Eh. Stewart, Mason Joseph, Es. Stiles, Willis Leroy, Es. Stinchfield, William John, Ee. St. Lawrence, Leslie Henry, Me. Stone, Richard Harry, Ce. Stone, Willard Batchelder, Ch. Stoughton, Ivan Russel, Me. Strecker, Edward Whitman, Ch.Eng.

West New York, N. J. 206 H. H. Hall Balentine Hall Bangor Chelsea, Mass. 310 H. H. Hall Longmeadow, Mass. 401 Oak Hall Cumberland Center Mt. Vernon House Bangor 136 Maple Street, Bangor South Brewer South Brewer Wellesley, Mass. 10 Beech Street Mattawamkeag 16 Oak Street Brooklyn, N. Y. 57 Pine Street, Bangor 59 Cedar Street, Bangor Bangor Steuben Farm Boarding House Combined Locks, Wis. 2 Peters Street 7 Summer Street Bucksport 382 College Road Woodfords Bangor R.F.D. #7, Bangor Φ II K House Gouldsboro Winchendon, Mass. 211 H. H. Hall 207 H. H. Hall Warren 102 H. H. Hall Biddeford

274

Danforth Milford Calais Millinocket Portland Portland Augusta Rangeley Portland Phillips Waban, Mass. Gardiner Alfred Portland Greenfield, Mass.

Portland

\Sigma X House Milford B K House Balentine Hall K Σ House Balentine Hall Balentine Hall A X A House **•** II K House Stillwater $\Sigma \Phi \Sigma$ House **A X A House** 405 Oak Hall 401 Oak Hall

Balentine Hall

382 College Road

SOPHOMORES

Sturgis, John William, Es. Sullivan, Harry Ray, Ee. Sullivan, Jeremiah Francis, Ch.Eng.

Swett, Girdler Jackson, Jr., Ce. Swett, Roy Douglas, Ce. Sylvester, Mary Edwina, Fr. Syphers, Ansel James, Agr.

Taylor, Carl Linwood, Ch.Eng. Thomas, Ethel Jordan, Eh. Thompson, Eleanor Isobel, He. Thurston, George Milton, Me.

Tracy, Hubert, Jr., Agr. Twombly, Helen Irene, Hy. Twombly, Kenneth Percia, Es.

Umphrey, George Nelson, Fy.

Veayo, Galen Irving, Ed. Vickery, John Ainslie, Es.

Wadleigh, Gloria Emma, Fr. Wadleigh, Moses Beverly, Ch.A. Wakefield, Charles Edwin, Hy. Portland Old Town Bangor Σ A E House Old Town

69 WalterStreet, BangorSwampscott, Mass.303 H. H. HallCarthage Φ M Δ HouseRocklandBalentine HallMars Hill Σ N House

Woodland Φ K Σ House Rockland 24 Pierce Street Prentiss Balentine Hall Bangor 35 Harvard Street, Bangor Lincoln A Γ P House Monroe 25 Myrtle Street **A X A House** Belfast Washburn Σ X House 34 Spring Street, Bangor Bangor Belfast **A X A House** Old Town Old Town Old Town $K \Sigma$ House Cherryfield 311 H. H. Hall 38 Penobscot Street Orono Bridgeport, Conn. 10 Beech Street Norway A T Ω House South Windham Balentine Hall Vinalhaven Balentine Hall Bar Harbor Σ N House Balentine Hall Brewer A T Ω House Hartland Bangor R.F.D. #7, Bangor Springfield, Mass. 134 College Road South Hanover, Mass. 207 H. H. Hall Orono 384 College Road Farmington A T Ω House Lee Φ H K House

Walker, Allston Ulysses, Ce.
Walker, Edward Hayden, Fy.
Walker, William Cecil, Agr.
Ward, Florence Louise, He.
Wareham, Ellen, He.
Wasgatt, Richard, Bl.
Watters, Inez Evelyn, He.
Webber, Norman Wheeler, Bl.
Webster, Francis Billings, Me.
Weeks, Gilbert Edward, Ee.

Wells, William Carl, Hy.

Whitcomb, Katherine Winnifred, He. Whitten, Richard Walker, Ce. Whitten, Robert Reed, Ce.

Winslow, Evelyn Louise, Bl. Wood, Benjamin Thomas, Ee. Woodman, Geneva, Eh. Woodward, Edgar Mesick, Ch. Wright, Frank Harding, Ee.

Ashland	Balentine Hall
Waterville	M. C. A. Building
Woodfords	Balentine Hall
Bangor	K \Sigma House
Bangor 263	French Street, Bangor

FRESHMEN

Abbott, Clark Luce, Fy. Abbott, Clinton John, Fy. Abbott, Edward Delmont, Fy. Achorn, Donald Tillson, Ch. Adams, Everett Kimball, Ee. Adams, Hazel Fisher, He.

Adams, John Samuel, Agr. Allen, Durrell Morrison, Arts Allen, William Alfred, Arts Alpert, Maurice, Arts Ames, Kenneth Green, Me. Anderson, Ada Margaret, Arts Anderson, Florence Lillian, Arts Andrews, George Hayes, Ch.Eng. Armstrong, Margaret June, Arts Arnold, Cedric Loring, Arts Asali, Louis Anthony, Arts Ashton, Vincent Hobson, Ee. Ashworth, Bentley Parker, Ce. Austin, Frank Willis, Arts Austin, Ronald Ermont, Me.

North New Portland Stillwater North New Portland K 2 House 10 Beech Street Freeport Saco 34 Pine Street 2 Forest Avenue Belfast Boothbay Harbor 38 North Main Street Pittsburg, N. H. A Γ P House Bar Harbor 412 Oak Hall Portland $\Sigma \Phi \Sigma$ House Bangor 137 State Street, Bangor 305 H. H. Hall Bridgton Oxbow Main Street New Sharon **Balentine** Annex Λ X A House Augusta Vanceboro Balentine Annex Swampscott, Mass. 403 H. H. Hall 3 School Street Portland Norway 401 H. H. Hall Wenham, Mass. Park Street South Berwick Σ N House Springvale 10 Beech Street 411 Oak Hall Augusta Westbrook **Balentine** Annex 172 Main Street Auburn 16 Pine Street Portland New Britain, Conn. 10 Beech Street Mt. Vernon House Rockport National Soldiers Home θ X House Bangor 103 Howard Street, Bangor

Bagley, Fernald Stumbles, Ee. Baker, Doris Mae, Arts Baker, Dorothy Ethel, He. Baker, Russell Adams, Arts Baldwin, Thomas Henry, Jr., Arts

Ballard, Doris Dolores, Arts Barker, Kenneth Archie, Ce.

Barrett, Lewis William, Ee.

FRESHMEN

Barry, John Thomas, Jr., Arts Bates, James Clement, Fy. Battles, Francis Jaques, Arts Bean, Mary Gilman, Arts

Beaulieu, Austin Leo, Arts Beechler, Austin Dexter, Arts

Bicknell, John Alfred, Ch.Eng. Biggar, Clarence Ersil, Arts Bittner, Robert Louis, Ch.Eng. Blaisdell, George Stephenson, Ch. Booth, Henry Gibson, Ch.Eng. Bowden, Kathryn Stover, He.

Bowen, Linwood Jules, Agr. Boynton, Francis Hamlen, Fy. Boynton, Mildred Helena, He. Bradbury, Beulah Marie, Arts

Bratton, Allen Wheeler, Fy.

Brener, Rose Joy, Arts Bridges, Wilbur, Arts Brigham, Austin DeWitt, Fy. Brock, Philip Stanton, Agr. Brooks, Ralph Conway, Ee. Brown, Donald Wenzell, Arts Bryant, Harold Earle, Agr. Buchan, Malcolm Leslie, Ce.

Bangor 16 Walter Street, Bangor Calais 2 Forest Avenue Lowell, Mass. 112 H. H. Hall Bangor 404 Hammond Street, Bangor 15 Mayo Street Orono South Manchester, Conn. **A** X A House 301 H. H. Hall Portland Augusta 7 Summer Street Brooklyn, N. Y. 24 Pierce Street Φ H K House Gardiner Bradford, Mass. 111 H. H. Hall Lucerne-in-Maine Balentine Annex Bangor 652 Essex Street, Bangor ΣX House Wakefield, Mass. Millinocket 43 Broadway Bangor 542 Hammond Street, Bangor Williamstoren, Mass. 29 Pond Street Portland 136 Maple Street, Bangor Bangor 178 Birch Street, Bangor Bridgton Σ A E House

Buck, Margaret Anna, Arts Bunker, Oscar Hysom, Ch. Burgess, Marjorie Eva, He.

Burnham, Howard Frederick, Arts Burns, Thomas Francis, Ch.Eng.

Burrill, Margaret Estelle, Arts Burris, Chester Whitfield, Ce. Butler, Paul Grant, Ch.Eng. Buzzell, Edward Wiley, Me.

Ogunquit 210 Oak Hall 102 Oak Hall Portland Fort Fairfield B K House North Andover, Mass. 56 Park Street Bangor Mt. Vernon House West Sullivan 3 School Street Southwest Harbor 37 Forest Avenue Greenfield, Mass. Θ X House East Walpole, Mass. 401 H. H Hall Bangor 230 French Street, Bangor North Sullivan 35 Main Street Portland 384 College Road Fryeburg Φ K Σ House

Waterboro

202 H. H. Hall

Calderwood, Neil Moody, Ce. Carbone, Frank Steven, Arts Carbone, Josephine Albina, Arts Chase, Geraldine, Arts Chase, Lovell Converse, Ce. Churchill, Margaret Collins, Arts Clement, Louise, Arts Cobb, Mary Elizabeth, Arts Cogswell, Vaughan Herbert, Ce. Colby, Fred Bennett, Jr., Arts Cole, Alton Roberts, Ch.Eng. Cole, Stanley Goodman, Fy.

Coleman, Arba John, Arts Cox, Rose Estelle, Arts Crowe, James Hartley, Arts Crowell, Elsie Mary, Arts Crowell, Lorenzo Mayo, Arts Cunningham, Marion Elizabeth, Arts Currie, Robert, Jr., Ee.

Danforth, Paul Lorimer, Arts

Daniels, Geneva Agatha, He. Davis, Cecil Lackee, Me. Davis, Marian Louise, Arts Davis, Wilfred Stanley, Fy. Davis, William Osborn, Ee. Davis, William Scott, Ee. Dearth, Robert Davee, Agr. Dekin, Albert Arch, Ch.Eng. Denaco, Alden Frank, Ee. Dennison, Maurice Bartol, Arts Despres, Urban Henry, Ch.Eng. Dickson, John Doyle, Jr., Ch.Eng. Dillon, Donald Edward, Arts Doane, William Holman, Ce. Dockham, Charles William, Ch.Eng. Doyle, John Preston, Agr.

Vinalhaven	$\Phi \Gamma \Delta$ House
Boothbay Harbor	109 Oak Hall
Boothbay Harbor	32 Mill Street
Limestone	188 Main Street
Houlton	K \Sigma House
Houlton	Balentine Annex
Portland	188 Main Street
Belfast	Balentine Hall
Fort Fairfield	B K House
Gardner, Mass.	В Ө П House
Guilford	409 H. H. Hall
West Hartford, C	Conn.
57 N	orth Main Street
Portland	301 H. H. Hall
Portland	Balentine Hall
Woodland	25 Myrtle Street
Corinna M	It. Vernon House
Bangor 79 Four	th Street, Bangor
Bucksport	9 Pine Street
Eastport	212 H. H. Hall

Bangor

27 William Street, Bangor Mechanic Falls Balentine Annex Cape Elizabeth 10 Beech Street Rockland Balentine Annex Mechanic Falls 101 Oct Hall

Egan, Jerome Joseph, Fy. Elliot, Katherine Clara, Arts

Mechanic Falls	101 Oak Hall
Bridgton	201 H. H. Hall
Brunswick	208 H. H. Hall
West Upton, Mas	s. $\Phi M \Delta$ House
Howland	209 H. H. Hall
Bangor 322 Cent	ter Street, Bangor
Bangor 46 Norw	vay Road, Bangor
Auburn	111 H. H. Hall
Waterford, N. Y	K Σ House
Broumville Jct.	S A E House
Portland	306 Oak Hall
Bar Harbor	403 Oak Hall
Caribou	$\Phi \Gamma \Delta$ House

Baltimore, Md. Rumford Point 6 Mill Street 9 Forest Avenue

FRESHMEN

Elliott, Linwood Shaw, Fy. Ellis, Charlene Hope, He. Epstein, Mae, Arts Evans, Frank Edwin, Agr.

Fahey, William Henry, Arts Fairchild, Arthur Stone, Fy. Farwell, Beatrice Erdine, Arts Feeley, John Robert, Arts Fickett, Lester Calvin, Ch.Eng. Findlen, Henrietta Elizabeth, Arts Findlen, Marion Elizabeth, He. Fine, Jacob Saul, Arts Fisher, Curtis Albert, Me. Fittz, Austin Hervey, Jr., Agr. Fitzgibbon, William James, Fy. Flaherty, Morton Hills, Arts Flanders, Merton Newcomb, Arts Fobes, Charles Bartlett, Fy. Forbush, Arthur Norman, Fy. Fortier, Lucian Keith, Ee. Foss, June, He. Fowles, Margaret Esther, Arts Frame, Ellen Hawley, He. Franson, John Emanuel, Fy. Freeman, Muriel, Arts French, Norman Lufkin, Agr. French, Perley Arthur, Ch.Eng. Frost, Allan Wesley, Ee. Fuller, James Wilson, Ch.Eng.

Portland	
Sangcrville	
Portland	
Bridgton	

84 College Road
172 Main Street
Balentine Annex
201 H. H. Hall

Lewiston Φ K House Arlington, Mass. Σ A E House New Gloucester 34 Forest Avenue Houlton 43 Main Street Skowhegan В Ө П Ноизе Findlen, Mass. 37 Forest Avenue Fort Fairfield 39 Pine Street New Bedford, Mass. 34 Pine Street South Portland 109 H. H. Hall Natick, Mass. 55 Park Street Old Orchard 206 Oak Hall Hartford, Conn. Φ K House Portland 53 North Main Street Woodfords 402 Oak Hall Marlboro, Mass. $\Phi \Gamma \Delta$ House Springfield 410 H. H. Hall Ellsworth 9 Forest Avenue Belfast 23 Bennoch Street Searsport 24 Oak Street Lynn, Mass. 54 Pine Street North Windham 24 Oak Street Rumford Center B Θ Π House Stillwater Randolph -Brunswick • K House Hartland $\Phi \Gamma \Delta$ House North Andover, Mass. 90 Park Street Portland 104 H. H. Hall Brewer Brewer Kent's Hill 25 Myrtle Street Bangor 78 Sanford Street, Bangor Bangor 35 Howard Street, Bangor Waterville Σ X House 7 Summer Street Springvale East Corinth 25 Grove Street Portland 402 Oak Hall

Galagher, Mary Adams, Arts

Gatti, Anthony James, Arts Gerry, Albert Francis, Ce. Gibbs, Thelma Pike, Arts Giddings, Katharyn Storer, Arts Gilbert, Rachel Louise, Arts Gilmore, Willard Myron, Me. Goodwin, Carlton Littlefield, Ch.Eng. Goodwin, Lloyd Edwin, Ee. Gordon, John Lee, Ch.

Gradie, Frederick William, Ce. Grady, Stephen Joseph, Arts Graney, Robert Martin, Fy. Grant, Henry Hichborn, Arts Gray, Almon Andrew, Ee. Gray, George Washington, Agr.

Greenman, William, Arts Gross, Erma Davis, Arts Gross, Virgil Tyler, Ee. Guice, Susie Marie, Arts Gunning, Everett Albert, Ee.

Hacker, Jerre Frank, Agr. Haines, George Arthur, Ce. Hall, Arthur Whittier, Me. Hall, Edmund Rankin, Arts Hall, Walter Louis Henry, Arts Ham, Eric Rodney, Agr. Hamilton, Allan Clarke, Ch.Eng. Hammel, Margaret Mary, Arts

Hanaburgh, David Henry, Fy. Hardison, Clayton Haines, Ce. Hargreaves, Reginald Lester, Arts

Mattawamkeag	18 Oak Street
Winthrop, Mass.	69 Mill Street
East Walpole, M	ass. Φ K House
	384 College Road
Bluehill	56 Park Street
Indian Point	
39 Columbi	ia Street, Bangor
Rumford	15 Water Street
Belfast	Old Town
Portland	$\Phi M \Delta House$
Orono	43 Breadway
Waterville	101 H. H. Hall
Fort Fairfield	110 H. H. Hall
Fort Fairfield	109 H. H. Hall
Bath	56 Park Street
Brewer	Brewer
Orono	64 Mill Street
Springfield	306 H. H. Hall
Portland	306 Oak Hall
Readville, Mass.	
	37 Forest Avenue
Buchanan, N. Y.	205 Oak Hall
Caribou	103 H. H. Hall
New Bedford, M	ass.
	312 H. H. Hall

Harris, Kenneth James, Arts Hawes, Edmund Thacher, Fy. Hayes, Gordon Sampson, Ce. Hayter, Stanley Greene, Me. Hendrickson, Warren Maynard, Agr. Heritage, Hilda Muriel, Arts Hermann, Florence Whitney, Arts

Hesse, Lawrence Stewart, Agr. Heye, K. Werner, 3rd, Ch.Eng. Hickson, Sylvia Lorraine, Arts Higgins, Richard Fernald, Eng. Hilborn, Merle Tyson, Fy. Hilton, Ethel Mary, He.

Holly, Norman Joseph, Arts

Lisbon Falls	Φ M Δ House
Fairhaven, Mass.	В Ө П House
Oxford	Φ K Σ House
Clinton, Mass.	16 Pine Street
Waterville	60 Park Street
Addison	33 Main Street
Cumberland Mills	
Mt.	Vernon House
Somerville, Mass.	26 Mill Street
Rochester, N. Y.	В Ө П House
Bangor 72 Cedar	r Street, Bangor
Augusta	A X A House
Philadelphia, Pa.	105 Oak Hall
Athens	66 Park Street
Mars Hill	81 Mill Street

FRESHMEN

Holmes, Paul Robert, Me. Holmes, Roy Nelson, Arts Hooper, Cleveland Holbrook, Me. Howe, Nathaniel Houghton, Ee. Howes, Albert Henry, Me. Hoxie, Thomas Barr, Arts Huddilston, Homer Woodbridge, Arts Hughes, Hildred Louise, Arts Humphrey, Wallace Harlow, Fy.

Hunter, Raymond Additon, Ee. Huot, Lawrence Hubert, Eng. Hutchinson, Charles Wisner, Fy.

Ingalls, Charles Carroll, Ce.

Jasionis, John Peter, Me. Jellison, Sherwood Almon, Arts Jenks, Robert Fletcher, Me. Jensen, Arthur Raymond, Fy. Johnson, Harold Ingalls, Me. Johnson, Lewis Olof, Me. Johnson, William Whidden, Arts Joy, Raymond Strout, Agr.

101 H. H. Hall Waterville Norwood, Mass. Δ T Δ House Brewer Brewer Ashland 411 Oak Hall Bingham 112 Oak Hall Belfast 16 Pine Street Orono 193 Main Street Bangor 105 Third Street, Bangor West Medford, Mass. Δ T Δ House Unity Stillwater Saco Σ A E House Pepperell, Mass. 51 North Main Street

Bar Harbor

309 Oak Hall

Norwood, Mass.309 H. H. HallEllsworth Falls $\Phi \ \Gamma \ \Delta$ HouseRoslindale, Mass.10 Beech StreetPepperell, Mass.H. H. HallMilo $\Lambda \ X \ A$ HouseBangor131 Birch Street, BangorPortland10 Beech StreetAddison201 Oak Hall

Kangas, Kaarlo Kristian, Arts Keith, William Hammond, Ce. Kennard, Edith Carolyn, Arts Keresey, Thomas Edward, Arts Kick, Samuel Adam, Ce. Kier, Vernon Jensen, Ch.Eng. Kiszonak, Amel Francis, Arts Knight, Vaughn Douglas, Ee. Knight, William Beedle, Ce. Kurson, Newell Bernard, Arts

Lampropoulos, Charles Louis, Arts Landers, Neal Hammond, Agr. Lane, John Merrifield, Ch.Eng. Lane, John Murchie, Me. Leach, Walter Rayford, Arts

Gardner, Mass. 54 Pine Street Old Toren $\Phi \Gamma \Delta$ House Bangor 14 Savage Street, Bangor Gardner, Mass. 403 H. H. Hall Lisbon Falls 407 Oak Hall Portland 407 Oak Hall Lisbon Falls 407 Oak Hall Limestone 20 Peters Street New Haven, Conn. 23 Pond Street Bangor 308 Oak Hall

Ipswich, Mass.10 BeeEastonA ΓPortland386 ColleCalaisA ΤPenobscot105 C

10 Beech Street
A Γ P House
386 College Road
A Τ Ω House
105 Oak Hall

Learned, Howard Albert, Me. Leathers, Harland Francis, Arts Leland, Alanson Tyler, Arts Lepine, Jeanne, Arts Lester, Donald Leroy, Ee. Levensaler, Atwood, Arts Lewis, Florence Marion, Arts L'Heureux, Marcel François, Ch. Libby, Elton James, Ce. Libby, Winthrop Charles, Fy. Liscomb, Everett Willard, Agr. Loane, George Holland, Arts Long, Malcolm Graham, Ce. Lord, Morton Francis, Arts

Lothrop, Clayton Roger, Ch.Eng. Lowell, Elgin Leroy, Agr. Lutts, Herbert Warren, Ee. Lyon, Anna Matilda, Arts

McCabe, Francis Joseph, Arts McCallum, Philip Dolloff, Arts McCarthy, Joseph Paul, Me. McCarty, David Robert, Arts McCobb, Edgar Emerson, Ee. McCray, Roy Hayden, Fy. McCready, Pauline Isabel, Arts McGuire, Robert Joseph, Me. McIntosh, Carolyn Elizabeth, Arts

Rumford	47 Mill Street
Bangor	209 H. H. Hall
Gardner, Mass.	A X A House
Biddeford	Main Street
Woodfords	209 Oak Hall
Rockland	310 Oak Hall
Spring field	14 Pond Street
Lewiston	210 H. H. Hall
Portland	K Σ House
Caribou	Φ H K House
Salisbury Cove	312 H. H. Hall
Presque Isle	Σ N House
East Bluehill	A T Ω House
North Hanover,	
	15 Park Street
Pine Point	34 Pine Street
Lee	404 H. H. Hall
Kittery	56 Park Street
Bar Harbor	Mt. Vernon House
South Berwick	Δ T Δ House
Saco	34 Pine Street
Biddeford	102 H. H. Hall
Rockland	303 H. H. Hall
Camden	404 H. H. Hall
Madiaau	56 Dorle Street

Macaulay, Ellery Donald, Ee. Maggio, John Anthony, Arts Mahoney, William Edward, Ee. Mann, Eulalie Letitia, He. March, John Edwin, Arts Marcho, Henry Edmund, Ch.Eng. Martin, Alexander MacPhail, Arts

Masterman, Roscoe Chaney, Ch.Eng. Matheson, Hildreth, Arts Mayo, Robert Kenneth, Arts Meacham, Eleanor Clark, Arts

43 Main Street Bangor 55 Park Street Stonington Bangor 48 Sanford Street, Bangor

69 Mill Street Trevett Portland Stillwater Greenfield, Mass. 307 Oak Hall Livermore Falls 66 Park Street South Bridgton 134 College Road Bangor R.F.D. #7, Bangor Jamaica Plain, Mass. 16 Pine Street $\Phi M \Delta$ House Jay Bangor 306 Essex Street, Bangor Thomaston B K House

Bowdoinham

Madison

33 Main Street

56 Park Street

Mekeel, Richard Louis, Ce. Merriam, Wheeler Godfrey, Fy. Merrill, Laura Abigail, He.

Merrill, Margaret Annette, Arts Michaud, Herman Daniel, Ee. Miller, Edith Haskell, He. Miller, Stacy Ross, Agr. Miniutti, Angela, Arts Montgomery, Hildreth, Arts Moore, Esther, Arts Moore, John Redman, Ee. Morrison, Richard Plaisted, Ch.Eng.

Morton, Hugh Hayden, Me. Mowat, John Harold, Ch. Munroe, Ralph Gladding, Me. Murphy, Francis Davidson, Ee. Murphy, Robert Joseph, Fy.

Noddin, Priscilla, Arts

Nutting, Theodore Ernest, Ch.Eng.

Osier, Albion Vernon, Ch. Overlock, Fred Vernard, Ce. Cold Spring, N. Y. 54 Pine Street Framingham, Mass. 201 H. H. Hall Bangor

85 Cumberland Street, Bangor Old Town Old Town East Millinocket 103 H. H. Hall Orono 67 Main Street Carmel 25 Grove Street North Berwick 32 Mill Street Bucksport Balentine Hall McKinley ____ Balentine Hall Ellsworth 29 Pond Street Bangor

26 Kenduskeag Avenue, Bangor South Paris $\Phi M \Delta$ House Houlton 104 Oak Hall Attleboro, Mass. 208 Oak Hall Oakfield 112 H. H. Hall East Walpole, Mass. Φ K House

North Anson

39 Cottage Street, Bangor South Paris $\Phi M \Delta$ House

New Harbor 158 Main Street Thomaston 204 Oak Hall

Page, Edwin Sherman, Me. Parker, Albert Freeman, Fy.

Parkin, John Henry, Ce. Partridge, George Almond, Arts Patchell, Lindsay Alyn, Fy. Paul, Harry, Ch. Pearson, John Joseph, Jr., Arts Pease, Stanley Curtis, Fy. Pelletier, Harry Eldred, Arts Percival, Keith Weston, Ch.Eng. Pike, Merle Ernest, Me. Pineo, Malcolm Bissell, Ch.Eng. Pineo, Ralph Edson, Ce. Pitts, Robert Huntley, Me.

Derby 301 Oak Hall East Pepperell, Mass. 51 North Main Street Waterville 101 H. H. Hall Ellsworth 33 Peters Street Wytopitlock 406 Oak Hall Chelsea, Mass. 312 H. H. Hall Middleboro, Mass. 16 Pine Street North New Portland K S House Presque Isle 56 Park Street Bangor 108 Seventh Street, Bangor Livermore Falls 404 Oak Hall Milo Φ K Σ House Milo Φ K Σ House Portland 103 Oak Hall

Placzankis, Levi Charles, Arts Plummer, Philip Chase, Fy. Pooler, Marvia Mae, He. Poulin, James Edward, Jr., Arts Pressey, Donald Eugene, Ch.Eng. Profenno, Donato Camillo, Ce.

Quint, Rudolph Mitchell, Me.

Rand, Clarence Winslow, Fy. Rand, John Howard, Me.

Randall, Lawrence Carlton, Ee. Randall, Rosella Evelyn, Arts Randall, Willis Shaw, Me. Ranney, Thomas Stow, Ch.Eng. Ray, Jesse Everett, Jr., Me. Raynes, Margaret Louise, Arts Recchiuti, Collie, Arts Ricker, Cyrus Lunt, Arts Ricker, Francis Galarneaux, Ch.Eng. Riley, Walter Edgar, Me. Robbins, Winston Churchill, Ce. Robinson, Harold Stanley, Arts

Robinson, Isabelle Avesia, Arts Roche, John William, Ee. Romanow, Henry Donald, Arts Rosie, Elizabeth Agatha, Arts Ross, Muriel Evelyn, Arts Rubin, Max, Ch.Eng. Rumazza, Orestes Lawrence, Fy. Russell, John Weldon, Ch.Eng. Russell, Thomas, Fy.

	Union Street, Bangor
Portland	20 Peters Street
North New	Portland Stillwater
Andover	302 H. H. Hall
Livermore H	
2	15 Pleasant Street
Encebert	
Freeport	10 Beech Street
Westbrook	24 Pierce Street
Freeport	10 Beech Street
Presque Isle	7 Pleasant Street
St. Albans	Old Town
Bangor 37	Pier Street, Bangor
•	lass. 110 Oak Hall
• •	202 H. H. Hall
Hempstead,	
Portland	
	K Σ House
Brewer	Brewer
Brownville .	
	57 North Main Street

Old Town Old Town 3 School Street Portland Boston, Mass. 309 H. H. Hall Bangor 43 Main Street Auburn Balentine Annex Bangor 55 Elm Street, Bangor Rochester, N. Y. Φ K House Millinocket Stillwater Millinocket 212 H. H. Hall Sargentville **Balentine** Annex Fairfield 404 H. H. Hall Wells 2 Forest Avenue West Scarborough 211 H. H. Hall Newark, N. J. 103 Oak Hall Lisbon Falls 23 Pond Street Bangor 136 Maple Street, Bangor

Sargent, Abigail Louise, Arts Savage, Leon Emery, Ch.Eng. Sawyer, Frank Lewis, Me. Scamman, Chester Herbert, Ch.Eng. Scelfo, Alfred John, Ce. Schultz, Norman Laurance, Ch. Segal, Lillian, Arts

FRESHMEN

Seltzer, Joseph Percy, Ce. Senuta, Joseph Francis, Ch.Eng. Servetis, James Harry, Arts Shapero, Clarence, Arts Shaw, Linwood Zina, Ch.Eng. Shean, Geraldine Elizabeth, Arts Shean, Robert Stevens, Arts Sherman, Ivan Cecil, Arts Sims, James Milton, Arts Sinclair, Guy Vincent, Jr., Arts Small, Leona Helena, He. Smalley, Francis Elmer, Fy. Smith, Albert James, Ch.Eng. Smith, Mildred Ethel, Arts Snell, Burrill Dexter, Ce. Snow, Myrtleen Frances, He. Somers, Dorothy Marie, He. Soule, Mary Morton, Arts Sparrow, Ernest Elliot, Me.

Spear, Hilliard Robinson, Arts Spencer, Rebecca Tarbox, Arts Springer, Boyd Otis, Ce. Spurling, Leon Eugene, Me. Stanley, Asa Herbert, Jr., Arts Staples, Edward Malcolm, Ee. Staples, Robert Lyman, Fy. Starrett, Beulah Maude, Arts Stearns, Helen Ward, Arts Stern, Arthur David, Arts

Fairfield 201 H. H. Hall Fitchburg, Mass. 305 Oak Hall Bangor 191 Main Street, Bangor Bangor 30 Adams Street, Bangor Old Town Old Town Bangor 11 Autumn Street, Bangor Bangor 11 Autumn Street, Bangor Union 106 Oak Hall Andover, Mass. В Ө П Ноизе Westbrook 81 Mill Street Machiasport 33 Main Street Morrisville, Vt. 55 Park Street Hempstead, N. Y. 409 H. H. Hall Van Buren 9 Forest Avenue Fairfield 104 Oak Hall Old Town Old Town Bangor Mt. Vernon House Augusta 37 Forest Avenue Hampden Highlands

11 Main StreetWarren15 Park StreetBiddeford24 Pierce StreetLisbon Falls411 H. H. HallGouldsboro204 H. H. HallSpringfield406 Oak HallBath402 H. H. Hall

Stevens, Edward John, Jr., Ee.
Stevens, John Philip, Fy.
Stevens, Laurice Myron, Arts
Stevens, Marjorie Deane, Arts
Steward, Robert Bruce, Ee.
Stewart, Charles Lowell, Fy.
Stewart, Laurence Cooper, Ch.Eng.
Stone, Kenneth Berry, Fy.
Stone, Paul, Ch.Eng.
Stratton, Eleanor Pauline, Agr.

Ogunquit 311 H. H. Hall Warren 33 Forest Avenue Millinocket Mt. Vernon House Bangor 416 Hancock Street, Bangor Woodfords 209 Oak Hall Alfred Mill Street Plymouth 54 Park Street Bangor Balentine Hall Monson 103 H. H. Hall Minturn 25 Grove Street Sanford 47 Mill Street Augusta 134 College Road Bangor 239 Pine Street, Bangor Bridgeport, Conn. North Hall

Sullivan, Cornelius Joseph, Arts Sullivan, John Emmet, Arts Summerville, Harold James, Arts

Sundstrom, Walter Nelson, Ch.Eng. Swain, Loring Raymond, Me. Swain, Robert, Ee. Sweetser, Charles Newhall, Ch.Eng. Sweetser, Lawrence Richardson, Ee.

Talbot, Edith Akers, He. Thompson, Margaret Lord, He. Thompson, Oscar Thomas, Ch.Eng. Tibbetts, Roland James, Ee. Timberlake, Robert Eugene, Ce. Topham, Arnold Lee, Ee. Trafton, Emery James, Me. Traynor, Earl Joseph, Ee. Treworgy, Ruth Estelle, Arts Trickey, Katherine Woodworth, Arts Tweedie, Charles Henry, Arts

Valle, Donald Della, Ce. Vernon, Herbert Allen, Ee.

Wadsworth, George Edward, Ce. Walker, Clifton Nathaniel, Agr. Wallace, Edward Alexander, Ch.Eng. Warren, Bertha Alexandria, Arts Washburn, Louise Annette, He. Wass, Una Eleanor, Arts Watters, Gilberta Phoebe, He. Way, Emily Florence, Arts Webber, Robert Fillmore, Ee. Wendell, Raymond Thomas, Ce. Weston, Robert Theodore, Me. Weymouth, Philip Alan, Arts

Bangor 50 Pearl Street, Bangor
Rockland, Mass. 11 Mill Street
Manchester, N. H.
40 Middle Street
North Berwick $\Delta T \Delta$ House
Weld 103 H. H. Hall
Portland 384 College Road
Reading, Mass. S A E House
Presque Isle 212 H. H. Hall

56 Doort Street

Orono	40 Forest Avenue
Kennebunk	66 Park Street
Lincoln	24 Pierce Street
Vanceboro	104 H. H. Hall
South Portland	410 H. H. Hall
Brewer	Brewer
Rockland	310 Oak Hall
Waterville	69 Mill Street
Hallowell	188 Main Street
Bangor 17 Siz	xth Street, Bangor
Rockland	Σ N House

Portlan**d** Vanceboro 402 H. H. Hall Old Town

Bridgeport, Conn. K Σ House Wiscasset A I' P House

Whalen, John Augustus, Arts Whitten, James Francis, Arts Wiers, Frederick Eugene, Fy. Wiggin, Raymond Kenneth, Ee. Orono 14 Madawaska 188 Augusta B Addison B Bangor R.F.D Lincoln 188 Waterville 10 Oakland 66 Madison 25 West Medford, Mass. 23

Lincoln Farmington Washburn Albion 14 Pine Street 188 Main Street Balentine Hall Balentine Hall R.F.D. #8, Bangor 188 Main Street 101 H. H. Hall 66 Pine Street 25 Grove Street Mass. 23 Pond Street

23 Pond Street
311 H. H. Hall
24 Pierce Street
158 Main Street
Stillwater

STUDENTS CONDITIONED FOR ADMISSION

Willetts, Harold Kenneth, Ch.Eng. West Hartford, Conn.

Williams, Philip Manson, Ee. Williamson, Enoch Harry, Arts Williamson, Paul Clifford, Arts

Woodbury, Walter Henry, Ch.Eng. Woodis, Edgar Lester, Ce. Woodman, Bernice Ruth, Arts Wright, Merle Ray, He.

Yates, David Adelbert, Ee. Young, Ronald Everett, Ee.

Zottoli, Joseph Roland, Arts

 $\Phi \Gamma \Delta$ House Oakland 111 H. H. Hall Stratton Σ N House National Soldiers Home 210 Oak Hall North Belgrade 312 H. H. Hall Stratton Φ K Σ House Washburn 32 Mill Street North Hall Brooks Boothbay Harbor 204 H. H. Hall Northeast Harbor 412 Oak Hall

Dorchester, Mass. 202 Oak Hall

UPPERCLASS STUDENTS CONDITIONED FOR ADMISSION

Allen, Herman Curtis, Ch.	('31)	Freeport	BK	House
Berry, George Gavis, Eh.	('31)	Presque Isle	ФНК	House
Carter, Donald Everett, Fy.	('31)	Barre, Mass.	25 Grove	Street
Coffin, Victor Halford, Ms.	('31)	Bucksport	7 Summer	Street
Conner, Arthur Bradley, Hy.	('29)	Castine	ΦΓΔ	House
Espovich, Norman Norton, Hy.	('31)	Haverhill, Mass.	69 Mill	Street
Flynn, Carl Munro, Bl.	('30)	Harrington	227 Main	Street

287

('31) Goodoff, John Frank, Es. Gould, Phyllis, Bl. ('31) ('30) Gould, Sylvia, Pb. Grant, Gordon Converse, Ch.Eng. ('31) Herrick, Carl Everett, Es. ('31) ('30) Howard, Alfred Frank, Me. ('31) Jack, Arthur Templeton, Ch.Eng. ('30) Lapworth, Burleigh Wood, Me. ('30) Lewsen, Rudolph Forbes, Ce. ('31) McGowan, John Gay, Eh. ('31) Marble, Donovan Wallace, Ce. ('31) Mendall, Howard Lewis, Bl. ('30) Mossler, Frederick Linnell, Ms. ('31) Murray, Vernon, Ee. Osgood, Doris Blanche, Eh. ('31) Patten, Frank Edward, Jr., Ce. ('31)

Mexico Bangor Bangor Sandy Point Rockland Rumford Brunswick Hopedale, Mass. Bangor Cambridge, Mass. Harmony Augusta South Brewer Brownville Jct. Prentiss Cherryfield

Φ K House Balentine Hall Balentine Hall 210 H. H. Hall Φ K Σ House Φ K Σ House Σ X House $\Phi M \Delta$ House 21 First Street, Bangor Θ X House A T Ω House A Γ P House Φ M Δ House K Σ House Balentine Hall ΘX House

Livermore Falls 302 H. H. Hall Perry, Willard Joseph, Eh. ('31) Robinson, Theodore Francis, Ms. ('29) Island Falls $\Sigma \Phi \Sigma$ House ('31) Hopedale, Mass. Σ A E House Seville, Joseph Sydney, Me. ('31) Scarsdale, N.Y. 312 Oak Hall Stearns, Emerson Gilbert, Me. ('31) Ephrata, Pa. 75 Forest Avenue Stephan, John Howard, Es. ('30) Lisbon $\Phi \Gamma \Delta$ House Wagg, Robert Alphonso, Hy. ('30) Presque Isle B K House Ward, Charles Raymond, Es. ('31) North Oxford, Mass. K Σ House White, Raymond Earl, Agr. Bingham Φ K Σ House Woodard, Kenneth Franklin, Ee. ('31)

SPECIAL STUDENTS

Allen, Bertrand Adair, Arts	Brownville Jct. $B \Theta \Pi$ House
Blanchard, Willis Euan, Arts	Bangor 126 Grant Street, Bangor
Clark, Walter Lewis, Es.	West Somerville, Mass.
	3 Park Street
Dickinson, Alice Jesseman, Es.	Orono 55 Bennoch Street
Doe, Harold Oliver, Eh.	Bangor
	100 Highland Street, Bangor
Dymond, Anna Torrens, Arts	Bangor 86 Grove Street, Bangor
Felker, Everett Joshua, Ed.	Orono 2 Forest Avenue
Finley, George Byron, Agr.	National Soldiers Home
	34 Middle Street
Gallagher, Blakeley, Fy.	Newtonville, Mass. ΦΓΔ House
Glaser, Leo, Arts	Gardiner 111 Oak Hal
Crease Lours Kollor Arts	Stanington 66 Park Street

Hammond, Hazel Luella, Ms. Hersey, Carlotta, Ed. Hincks, Maynard Alton, Agr. Huestis, Charles Stanley, Ch.Eng. Hurd, Marguerite Littlefield, He. Hutchins, Curtis Marshall, Fy. Mackie, James Robert, Ce. Merrill, Roger William, Ch.

Moran, Lester Dwinel, Arts Morrison, John Alexander, Es.

Mueller, Ernest Edward, Me. Protas, Stanley Joseph, Arts Randall, Philip Hatherly, Fy. StillwaterStillwaterBangor122 OhioStreet, BangorPortland Δ T Δ HouseSt. Stephen, N. B. Σ X HouseOrono66 Park StreetNewton, Mass.College RoadBangor401 UnionStreet, Bangor

85 Cumberland Street, Bangor Millinocket 6 Myrtle Street Brewer

347 Hammond Street, BangorCoshocton, Ohio75 Forest AvenueBiddeford204 Oak HallRichmond10 Mill Street

NEW REGISTRATIONS

Rogers, Marion Elizabeth, Bl. Sawyer, Clayton Leonard, Ch. Scott, Ermo Houston, Ed. Senechal, Joseph Louis, Arts

Stevens, David Harvey, Ce. Stormann, Linwood, Me. Vickery, Robert McCue, Ce. Ward, Prescott Reed, Arts Weiner, William Wolf, Arts Woodbury, George Wallis, Arts Yerxa, Philip Radcliffe, Arts

Orono 162 College Road Orono 6 Crosby Street Bangor 19 First Street, Bangor Stafford Springs, Conn. R.F.D. #7, Bangor 23 Spencer Street Guilford Stillwater Stillwater Hallowell 3 Park Street South Portland Δ T Δ House

South Portland Δ T Δ HouseBoston, Mass.302 H. H. HallOrono74 North Main StreetBangor179 Elm Street, Bangor

TWO-YEAR COURSE IN AGRICULTURE

Second Year

Cyr, Arthur Pierre Plummer, Heath Alexander Weathern, Benjamin Harrison Woodworth, Wallace Charles Wyman, Edgar Hunter Grand Isle Skowhegan Farmington South Paris Waterville Stillwater 205 H. H. Hall A Γ P House 409 H. H. Hall 307 H. H. Hall

Dudley, Otis Dana Lane, Philip Trumbull

Todd, Sherman Leander York, Neal Farwell Bryant Pond3 Peters StreetNewton Center, Mass.411 H. H. HallFort Fairfield308 Oak HallWalnut HillB K House

SPRING SEMESTER 1929

New Registrations

GRADUATES

Whitney, Walter Reginald, B.S., Eh. Bangor 230 State Street, Bangor Bowdoin, 1923

SENIORS

Barker, Elliott Eveleigh, Bl.	Bridgewater	S X House
Bradbury, Hortense, He.	Old Toum	North Hall
Gleason, Richard Packard, Ee.	Mexico	Φ M Δ House
Hall, John Harold, Ed.	Mexico	θ X House
Jackson, Robert Howard, Ch.A.	Old Torm	Old Town

JUNIORS

Douglas, Lydia Myers, Lt.	Brunswick	Balentine Hall
Dow, Ruth, Sp.	Cornish	Balentine Hall
Grossman, Ruth Florence, Fr.	Brewer	Brewer
Hammond, Seymour Chamberlain, Fy.	York Village	\Sigma A E House
Lary, Everett Carlton, Ch.Eng.	Saco	48 Pine Street
Libby, Henry Earl, Fy.	Gorham	Φ H K House
McNamara, Richard Wentworth, Bl.	Winthrop	O X House
Moulton, Olin Cates, Bl.	Sebago Lake	S X House
Soderberg, Louis Roland, Me.	Andover, Mass.	Δ T Δ House

Sophomores

Gales, Eunice Parker, Hy. Hawkins, Laurence Avery, Hy. Lancaster, Mabel Clide, He. Light, Elden Everett, Ch.Eng. Loring, Richard Willett, Ce. MacFarland, Chester Carey, Ce. Marks, Sophia Estelle, Eh. Murray, Leone LeVal, Me. Nickels, Herbert Lewis, Eh. Taplin, Paul Lewis, Ce. Thompson, Donal Kingman, Ch. Wilson, Donald Burns, Fy.

Ashland	34 Forest Avenue
Brewer	303 Oak Hall
Old Town	Old Town
Waldoboro	406 H. H. Hall
Brookline, Mass.	A T Ω House
Union	Δ T Δ House

*2*90

Bangor54 Summer Street, BangorWaterville Φ K HouseWoodfords Δ T Δ HouseMontpelier, Vt.B K HouseBangor186 Cedar Street, BangorBath Φ Γ Δ House

FRESHMEN

Gillis, Ronald Edward, ArtsHolyoke, Mass.K HouseJohnson, Ralph Levern, ArtsHarmonyH K HouseMcLaughlin, William Grinnell, Ch.Eng. Exeter303 H. H. HallTrask, Herbert Irving, Fy.Mechanic Falls205 Oak Hall

Specials

Clough, Elizabeth Pauline, Eh. Bangor 209 State Street, Bangor

SUMMER SESSION

SUMMER SESSION

CANDIDATES FOR THE MASTER'S DEGREE

Adriance, Sarah Ada, B.A., Ed. New York State College, 1920 Bayley, Martha Dunbar, B.S., Hy. New York State College, 1923 Bayley, Mary Elizabeth, B.S., Bl. St. Lawrence, 1922 Bellaty, Helene Bernice, B.A., Ed. Colby, 1909 Bowen, Howard Lancaster, B.A., Ed. Maine, 1924 Brickett, Elsie Furbush, B.A., Eh. Bates, 1925 Browning, Neva Lenore, B.A., Ed. Maine, 1915 Bryan, Jessie French, B.A., Eh. Wellesley, 1910 Burke, Frank Valentine, B.Pd., Ed. Maine, 1924 Cahalane, Joan Mary, B.A., Hy. Barnard, 1927 Callaghan, Thomas Augustin, B.S., Ed. South Brever Colby, 1923 Campbell, Rena, B.S. He. Orono Maine, 1921 Chandler, Frederick Barker, B.S., Bl. Orono Maine, 1928 Chaplin, Joseph Benjamin, B.S., Ed. Newport Maine, 1921 Clark, Alice Helen, B.A., Eh. Colby, 1921 Clark, Lewis Bates, B.A., Es. Maine, 1925 Clark, Ralph Merrill, B.S., Ed. **Trinity**, 1927 Conley, Katherine Amanda, B.A., Eh. Beaver, 1925 Copeland, Mary Lillian, B.A., Lt. Maine, 1924

Slingerlands, N.Y.
Massena, N. Y.
Massena, N.Y.
Ellswort h
Bingham
Scranton, Pa.
Orono
Orono
Randolph
Staten Island, N. Y.

Caratunk Rockland Hartford, Conn. Ellsworth

Brewer

Cromwell, Pauline Keefer, B.A., Ed. Upper Marlboro, Md. Western Maryland, 1921 Cromwell, Robert Floyd, B.A., Ed. Western Maryland, 1922 Davis, Alta Estelle, B.A., Ms. Newport Colby, 1918 Dudley, Lois Amelia, B.A., Eh. Calais Wheaton, 1928 French, Marion Elizabeth, B.A., Ed. Fort Fairfield Maine, 1920 Gibbs, Hazel Millicent, B.A., Eh. Kents Hill Colby, 1917 Gordon, Eugene Bradley, B.A., Ed. Brewer Bowdoin, 1914 Hamm, Clifton Marshall, B.A., Ed. Bangor Maine, 1923 Hathorne, Helen Louise, B.A., Hy. Orono Maine, 1922 Hayes, Alden Burgess, B.S., Ed. South Paris Maine, 1914 Hempstead, Alfred Geer, B.A., Es. Greenville Maine, 1923 Hinchliffe, John Henry, B.S., Ed. Orange, Conn. Maine, 1903 Hobbs, Helen Belle, B.A., Hy. Springvale Bates, 1927 Hodgdon, Fernald, B.S., Ed. Millinocket Maine, 1925 Horton, Allen Fayette, B.A., Ch. Philadelphia, Pa. Haverford, 1928 Houston, Howard Raymond, B.A., Ed. Brewer Bates, 1913 Portland Hunt, Elizabeth Frances, B.A., Eh. Maine, 1928 Jewett, George Herbert, B.A., Ed. Bucksport Bates, 1915 Kelley, Norman James, B.S., Ed. Orono Maine, 1925 Kimball, Donald Stevens, B.M.E., Ch. Bridgewater, Mass. Northeastern, 1925 Lawrie, Christabel Finley, B.Pd., Ed. Orono Maine, 1926

Upper Marlboro, Md.

SUMMER SESSION

Honan, China Ma, Chieh, B.A., M.S., Ch.Eng. Ohio State, 1927, 1928 McCue, Eleanor Lord, B.A., Eh. Berwick Bates, 1925 McKenney, Leroy Nelson, B.A., Ed. Duxbury, Mass. Maine, 1920 Nickerson, Kermit Spearin, B.A., Ed. Swanville Dartmouth, 1926 Dover-Foxcroft Phillips, Evelyn Butler, B.A., Ed. Bates, 1926 Rideout, Doris Celia, B.A., Ed. Bangor Maine, 1927 Shaw, Augustus Farnham, B.A., M.A., Ps. Nashville, Tenn. Wisconsin, 1892; Yale, 1902 Shibles, Lester Hale, B.A., Es. Orono Colby, 1915 Smith, Geneva May, B.S. in Ed., Ms. East Corinth Boston University, 1924 Smith, Hugh Allen, B.A., Ed. Pittsfield Colby, 1920 Smith, Lucille Estelle, B.A., Ed. Brewer Maine, 1921 Spearin, Clarence Milton, B.S., Ed. Old Town Maine, 1924 Stetson, Arthur William, B.A., Ed. Waterville Colby, 1907 Wallingford, Conn. Stevens, Ralph Starrett, B.Ed., Ed. Brown, 1926 Steward, Raymond Benson, B.S., Ed. Kingfield Maine, 1917 Stoddard, Lucia Avis, B.A., Eh. Washburn Bates, 1926 Thompson, George Lemar, B.A., Ed. Bangor Maine, 1926 White, Samuel Henry, B.S., Ed. Amenia, N. Y. Massachusetts Agricultural, 1924 Willey, Marjorie D., B.A., Ms. Ellsworth Maine, 1923 Winslow, Arthur Francis, B.L.I., B.S. in Hartford, Conn. Ed., Hy. Emerson College of Oratory, 1914; Boston University, 1923

Woodard, Pearl Ruby, B.A., Hy. Maine, 1925

Greenaulle Jct.

OTHER SUMMER SESSION STUDENTS

Abbott, Lillian Aikins, Sara Leighton Bailey, Victorine Baker, Carrie Valentine Baker, Richard Rexsamer Barrett, Daniel Joseph Bartlett, Edwina Marion Bell, Evelyn Lloyd Billings, Maurice Preston Bourgoin, George Hector Boynton, Vernon Winship Bradbury, Hortense Bradbury, Lillian Deane Branch, John Balch Bryan, Adelaide May, B.S. Elmira, 1924 Buckley, Lucile Walsh Burr, Charles Gilbert Buzzell, Marion Stephanie, B.A., M.A. Maine, 1914, 1916 Cahalane, Elizabeth Ivers Caldwell, John Carroll Chambers, Kathleen Rosalind Chandler, Thurlow Abbott Chaplin, Leola Bowie, B.A. Maine, 1917 Chase, Bertha Mae Chase, Hope Helen, B.A. Colby, 1926 Chase, Marion Ina Claffey, Francis Joseph Clark, Frances Eleanor Clark, Fred Bernard Clark, Hope Wilkinson Clark, Hannah Conlogue, Everett Freeman

Columbia South Windham Bungor Portland Claymont, Del. Danforth Hampden Caribou Westminster, Mass. Frenchville Weeks Mills Old Town Fort Fairfield Portland Bath. N. Y.

Bangor East Millinocket Old Town

Staten Island, N.Y. Island Falls Ocean Park Bangor Cornish

Wollaston, Mass. Brownville

Old Town Holyoke, Mass. Bangor Saco Orono Orono Portland

SUMMER SESSION

Connor, Aurora Gonzales Connor, Gerald Hollis Cook, Leah Ramsdell, B.Pd. Maine, 1921 Cowling, Marie Jane Crosby, Ruth, B.S. Maine, 1918 Crowley, James Harold Crozier, Edgar Raymond Cullen, Henry Lawrence, B.B.A. Boston University, 1927 Curtis, Clintina Eliza Curtis, Margaret Adeline (Sister Cyril) Damon, Clarence Washburn Danforth, Roger Charles Day, Lena Schoppee Dickinson, Alice Jesseman Dillon, Harold Joseph Dimlich, Albert Henry, B.S. Bates, 1925 Doe, Harold Oliver Douglas, Lydia Myers Dow, Lenora Dorothy Dow, Ruth Downs, Walter Alanson Drisko, Marion, B.A. Colby, 1924 Drisko, Mary, B.A. Colby, 1924 Drisko, Sewall Marston Eaton, Ruby Mildred Ellis, Dorothy, B.Ed. Brown, 1928 Elsemore, Loring LeRoy Erickson, Asenath Carter Fahey, Olevia Newcomb Farrington, Ervin Sylvester Fee, Kate Hamilton, B.S. in Ed. **Temple**, 1924 Flack, Howard Watson, B.A. Syracuse, 1914 Flint, Elizabeth MacMaster

Castine Castine Lubec

Easton, Pa. Bangor

Wytopitlock Brownville New York, N. Y.

Cambridge, Mass. St. Agatha Fitchburg, Mass. Castine Brewer Orono Randolph, Mass. Andover, Mass.

Bangor Brunswick Fort Kent **Cornish** Bangor Columbia Falls

Columbia Falls

Harrington Exeter Woodfords

Bangor Winterport Carmel Bucksport Collingswood, N. J.

Jamison, Pa.

Bayville, N.Y.

Flynn, Carl Munro Frantz, Alice Mae Fullerton, Ella Mae Gagne, Charles Philippe Gale, Nellie Isabella Garland, Carl Gordon Gerry, Florence Chandler Gill, John Cochrane Gilliland, Lucile Cartmell Goldsmith, Grace Helen Goodwin, Marjorie Evelyn Gould, Gladys Marie, B.S. Maine, 1922 Gould, Phyllis Gould, Sylvia Graffam, Pearl Roberts, B.A. Maine, 1926 Grant, Grace Stetson, B.A. Colby, 1907 Grearson, Edith Melvina, B.A. Colby, 1926 Greider, Henry Lewis Grindle, Dorothy Elizabeth Grindle, Rufus Manley Gustin, Dorothy Ida Gustin, Edith Buck Guttenberg, Jocelyn Edith, B.A. Hunter, 1927 Ham, Harriet Kittredge Ham, Thelma Virginia Haney, Harry Stetson Hare, Shirley Weldon Harribine, Cecil James Hartford, Justin Downing Hasey, Ruth Arlene Haslam, Vernon Granville Heal, Durward Sawyer, B.S. Colby, 1928 Heath, George Byron, B.Ph. **Tufts**, 1899 Herrick, Mary Darrah Higgins, Grace Eleanor

Harrington Dobbs Ferry, N. Y. Hartford, Conn. Orono Bangor Brewer Norridgewock Fort Fairfield Ormo Gardiner West Lebanon Milo

Bangor Bangor Bangor

Waterville

Calais

Cromwell, Ind. Bangor Bangor Bangor Bangor Brooklyn, N.Y.

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Cambridge Rangeley New York, N. Y. Houlton Newport New York, N. Y. Bangor Franklin East Millinocket

Calais

Bangor Dennysville

SUMMER SESSION

Higgins, Lois Rosamond Hilchey, Leo John Hills, Florence Annie Holt, Edward Barry, Jr. Howell, Madalyn Jordan Howell, Richard Henry Huddilston, Homer Woodbridge Orono Hunnewell, Clayton Moore Orono Hunt, Laura Ruby Hunt, Rosamond, B.A. Radcliffe, 1925 Hurd, Marguerite Littlefield Orono Jack, Ronald Augustus Jones, Effie Gower Lee Jones, Errald Gordon Jones, Maurice Daniel, B.S. Orono Maine, 1912 Kane, Eileen Frances Bangor Keith, Philip Edward, B.S. Sebec Colby, 1926 Kelley, Edward Gilman Orono Kellogg, Lucy May Kent, Frank Holmes Keyes, Joseph Frederick Knapp, Donald Roy Knox, Florence Laura Kresky, Emma Brooklyn, N. Y. LaFetra, Margaret Noyes Washington, D C. Lavigne, Eveline (Sister Elizabeth) St. Agatha Lee, Marjorie Danforth Lewis, Dorothea Ames Orono Portland Lewsen, Rudolph Forbes Lindsay, Hazel Beatrice Brewer Littlefield, Melva Orono Lobley, Joseph Harlen Bangor Lunt, Jessie Wadlin Biddeford MacCaffrey, John Philip Patten MacDonald, Ruth Anne Bangor McDonald, Lillian (Sister Patrick), B.Pd.St. Agatha Fordham, 1926 McGary, Geneva Fiske Bangor

Mapleton Old Town Nashua, N. H. Corinna Madison Madison Caratunk Brookline, Mass.

Pejepscot Brownville

Augusta Wytopitlock Bucksport Hampden Highlands Bowdoinham

McKechnie, Karl Harold, B.S. Maine, 1924 McMahon, Helen Mason, Pauline Catherine Maxson, Helen Maxson, Josephine Mead, Hazel Stewart Merriam, Louie Maud Merrill, J. Vey Miles, Elliott Raymond Miles, Madeline Leone Mitchell, Mary Frances Moore, Thelma Lucy Morris, Eleanor Smith, B.A. Bates, 1926 Morris, Paul Austin, B.A. Maine, 1919 Morrison, Eva Lou Morse, Walter Priest, B.A., M.A. Maine, 1926, 1928 Motz, Doris Kelley Motz, Rolf Brown Myrick, Burleigh Linwood Naber, Irma Flora Neff, William Everett, Jr. Nicol, Jean Burnett Orcutt, Leon Monroe, B.A. Maine, 1920 Page, Harriet Evangeline, B.A. Maine, 1925 Parnes, Frances Patten, Frank Edward Paul, Josephine Frances Penney, June Elizabeth Perkins, Arthur Chester Perry, Alton Church, B.A. Maine, 1926 Perry, Katherine Louise Phillips, Charles Cross, B.A. Bowdoin, 1899 Phillips, Ralph Linwood

Fairfield

Lowell, Mass. Bangor Waterford, Conn. Waterford, Conn. Bangor Boston, Mass. Winterport Calais Newport Windsor Bangor Norway Norway Derby Houlton Mt. Desert Dennysville Patten Dayton, Ohio Waterbury, Conn. Rockville, Md. Gouldsboro

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Orono

Elizabeth, N. J. Cherryfield Camden Bangor Monroe Randolph

Bangor Dover-Foxcroft

Bangor

SUMMER SESSION

Pickering, Marian Elizabeth Pollet, Anna Poole, Ivan Homer Power, Ellen Mary Alice Powers, Hilda Louise Preble, Margaret Mary, B.S. Maine, 1927 Pressey, Carolyn May Puffer, Charles Loring, Jr. Randall, Anthony Leroy Randall, Philip Hatherly Randall, Sara Rebecca Reardon, Mary Veronica Rees, June Williams Rhoades, Marion Norton, B.A. Colby, 1927 Richards, Evelyn Augusta Ring, Elizabeth, B.A., M.A. Maine, 1923, 1926 Robey, Versal Fairfield Robinson, Glenn Meredith Robinson, Roy Alexander, B.A. Bowdoin, 1927 Ronan, Marian Ellen Root, Annie Sanford Rowe, Carrie Henrietta Rush, Richard Ryskind, Sarah Lee Sargent, Helen Joy Saunders, Ethel Stover Savage, Adah Parker Sawyer, Clayton Leonard Sawyer, Doris Evelyn Sawyer, Edward Ward Scott, Ermo Houston Scott, Donis Averill Scott, Harriett Henderson Shaw, Harriett Olmstead Shea, William Francis Sherwood, Eleanor Skinner, Eula May

Lincoln Elmhurst, N.Y. Vinalhaven New York, N.Y. Bangor Brewer

Oakland Columbia Falls Cherryfield Richmond Dayton, Ohio North Andover, Mass. Orono Belfast

Lincolnville Orono

Bangor Bangor Pine Point

Orono Miami, Fla. Bangor

New York, N.Y. Brooklyn, N.Y. Sargentville Bucksport West Franklin Orono Bangor Bangor Bangor Presque Isle Millbridge Old Town Cherryfield Warren

Small, Irving Wheelock Small, Frances Maud Smith, Elsie Eugenia Smith, John Harold Snow, Aubrey Hamilton Snow, Paul Elmer Snow, Pearl Marguerite, B.Pd. Maine, 1923 Sparrow, Hazel Easter Spencer, Grace Lillian Sprague, Ursula Elizabeth Stairs, Erma Mae Stearns, Emerson Gilbert Stetson, Agnes Corinna, B.A. Colby, 1899 St. Germain, Clarinda Leontine St. Germain, Teresa Agnes Stubbs, Leila Adelaide Studley, Millard Sullivan, Margaret Regina Taylor, Addie Lora Teel, Velma Stanley Thompson, Pearl Burke Thurlow, Myra Dunn Tilden, William John, Ph.B. Chicago, 1925 Towle, Margaret Jacqueline Townsend, John Edward Travis, Esther Harriett Tripp, Lena Muriel Tucker, Clarence Arthur Twombly, James Lamson Urann, Arthur Everett Van Tassel, Vivian Madeline Veayo, Galen Irving Walker, Allston Ulysses Wall, Ruth Amilie Ward, Alice Evelyn Washburn, Leila Margaret Webb, Mortimer George, Jr. Wedgewood, Ada Ethel

Bangor Stonington Norway Mattawamkeag Atkinson Washburn Corinna Gardiner Orono Bangor Washburn Scarsdale, N. Y. Waterville New London, Conn. New London, Conn. Bangor Weeks Mills Norwich, Conn. Roxbury Cranberry Isles

Koxbury Cranberry Isles Lee Windham New York, N.Y.

Lynn, Mass. Bangor Hale Eddy, N. Y. Bar Harbor Cherryfield Monroc East Sullivan Brewer Bangor Orono Brooklyn, N. Y. Hampden Taunton, Mass. McKecsport, Pa. Orono

UNIVERSITY EXTENSION DIVISION

Wellman, Meredyth Carolyn Wentworth, Marjorie Lee West, Viola Frances White, Donald Powers White, Wyndham Roberts, Jr. Wilkins, Roger Carson Wilkins, Roland Lewis, B.S. <u>Maine, 1923</u> Williams, Amber Leola Willinan, Charlotte Madeline York, Vesta Vera Auburn Bangor Brewer Bayside New York, N. Y. Houlton North Jay

Bangor Staten Island, N. Y. Mars Hill

UNIVERSITY EXTENSION DIVISION

Abrahams, William Adams, Eleanor I. Adams, Lydia A. Adams, Natalie V. Allen, Alice M. Alley, Elizabeth C. Andrews, Ethel M. Atwater, Francis P. Averill, Louise Aymar, Maud F. Bailey, E. Merle Bailey, William G. Baker, Carrie V. Barbarick, Muriel H. Barker, Perry T. Bartlett, Edwina M. Baston, Belle Y. Benson, Eleanor L. Berry, Vivian L. Bickford, Helen B. Billings, Blanche M. Billings, Maurice P. Blaisdell, Nellie P. Blaisdell, Sadie R. Bolster, Pauline M. Borisoff, Nicola Bouchard, Nora M.

Bangor Bangor Bangor Bangor Bangor Southport Stillwater Bangor Old Town Bangor Bangor Carmel Rockport Sabbathday Lake Bangor Hampden Old Town Bangor Bangor Bangor Bangor Westminster, Mass. Bangor Bangor Bangor Bangor Bangor

Bowler, Leslie J. Bowles, M. H. Bradbury, Nellie L. Bridgham, Clifford E. Brown, Mrs. Alice L. Brown, Francis I. Brown, Sewall C. Bryant, Bertha H. Bryant, Herbert C. Bryant, Annette M. Bryanton, Doris C. Buck, Isabel W. Burnham, L. Gertrude Burton, Helen M. Bussell, Edith M. Calligan, A. Blanche Casey, Francis L. Chaplin, Joseph B. Chase, Willard O. Clayton, Mary Clewley, Evelyn M. Clough, Elizabeth P. Coffin, Merle L. Cogan, Margaret J. Collins, Albert B. Collins, Alice M. Collins, Eulalie E. Connor, Arthur B. Connor, Lawrence C. Coulter, Charlotte M. Cousins, Mildred F. Cowan, Frances R. Cowan, Julia M. Crocker, Rowell Cross, Ellen F. Cunningham, Arlene L. Cunningham, George S. Curran, Esther M. Curtis, Lilla E. Curtis, Margaret A. Cushman, Henry P.

.

Bangor Bangor Brewer Bangor Old Toren Bangor Bangor Freedom Bangor Bangor Brewer Dover-Foxcroft Old Town Bangor Old Toren Bangor Bangor Newport Old Town Bangor Bangor Bangor Bangor Jonesboro Old Torm Bangor Bangor Castine Bangor Bangor Bangor Bangor Bangor Bangor Bangor Bangor Jefferson Bangor Brewer St. Agatha Bangor

UNIVERSITY EXTENSION DIVISION

Daigle, Malvena M. Danforth, Walter A. Dennett, Mrs. Mabel F. Dickinson, Inez M. Dolley, Ila M. Donovan, Frances K. Dow, Eva W. Downs, Walter A. Drinkwater, Mabel M. Drummond, Charlotte C. Drysdale, Olive T. DuBourdieu, Marion Duncan, Izora A. Dunning, Bernice B. Eaton, Frank N., Jr. Edgecomb, G. Harold Ek, Hilda C. Elden, Nellie M. Eldridge, Mrs. Grace Ellis, Clarence M. Ellis, Winifred Epstein, Nathan Evans, Esther F. Espovich, Norman M. Farnham, Lillian S. Farnum, Mrs. Anna R. Ferguson, Anna L. Field, Ruth W. Floyd, Frank H. Flye, Owen L. Flynn, Eugene F. Fogg, Gertrude E. Foley, Lucinda Gale, Nellie I. Gallagher, Margaret M. Gammon, Alice L. Garland, Clarence L. Getchell, Mrs. Blanche Gibbons, Mary T. Giddings, Frances M. Gilpatrick, Paul E.

Bangor Bangor Bangor Old Torm Bangor Bangor Belfast Bangor Bangor Old Town Bangor Bangor Bangor Bangor Wells Bangor Old Town Brewer Bangor North Anson Bangor Bangor Belfast Haverhill, Mass. Brewer New Gloucester Bangor South Paris South Brewer Brooklin Bangor Bangor Bangor Bangor Bangor Old Torm Bangor Limestone Bangor Bangor Veazie

Glass, Grace E. Gonyar, William H. Gould, Ruby M. Graffam, Alice E. Gray, Bessie P. Gray, Evelyn Greenan, Helen Gustin, Dorothy Harrington, Teresa M. Hassell, Bernice Healy, Lilia W. Hebert, Lionel Herlihy, Eleanor A. Hickson, Helen C. Hills, Hazel A. Horton, David M. Hubbard, Neal J. Hunnewell, Clayton M. Huston, Howard R. Hussey, Madeline E. Hutchinson, Mary S. Ingalls, Sadie S. Jamieson, Ella B. Jones, Merle S. Jordan, Marion L. Kelley, Agnes R. Kelly, T. W. Kennard, William O. Knight, Edith M. Knowlton, Sarah D. F. Laws, Clifton Leach, Inez D. Leonard, Guy A. Leonard, Stanley T. Lewis, Ella S. Lindsay, Francis C. Little, Elmer F. Littlefield, Ethel L. Lockwood, John E. Longfellow, Frances E. Lovely, Mrs. Faye F.

Bangor Bangor Bangor Belfast Old Town Old Town Old Town Bangor Bangor Old Town Skowhegan Fort Kent Bangor Bangor Belfast Bangor Lynn, Mass. Tenants Harbor Brewer Augusta Eastport Denmark Bangor Boothbay Old Torm Brewer Bangor Eliot Bangor Brewer Bangor East Eddington Bangor Bangor Steuben Seboeis Bangor Old Town Old Town Machias Presque Isle

UNIVERSITY EXTENSION DIVISION

Lynch, Mary E. McCarthy, Lilian C. McCoy, Bessie McDonough, Helen L. MacEacharn, Adelaide R. MacEacharn, Clara L. McFarland, Elmer E. MacKay, Mary J. MacKechnie, Anna F. C. MacLeod, Lillian M. McSkimmon, Anna B. Maddocks, Mrs. Lylla S. Mallett, Clyde A. Malone, Sarah M. Marden, Nellie C. Matthews, Annette S. Matthewson, Herbert Mead, Hazel S. Megquier, Lydia E. Merrill, Edward A. Miller, Ronald I. Modes, Samuel Mooney, Mary E. Mooney, Mary K. Moore, Mrs. Barbara Moore, Ralph G. Morrison, John A. Mountaine, Augusta Mountaine, Helen J. Mullan, Alice M. Mullaney, Agnes M. Murdock, Everett S. Murphy, Reginald L. Myers, Enid L. Nado, Mrs. Mildred Nelson, Helen D. Neville, Ann E. Nevins, Mrs. Helen M. Nickels, Emma Nickerson, Elizabeth Nickerson, Kermit S.

Bangor Bangor Bangor Bangor Machias Machias Bangor Bangor Bar Harbor Bangor Bangor *Pelfast* Bangor Bangor Belfast Bangor Bangor Bangor Bangor Old Town Brewer Portland Bangor Bangor Madison Bangor Bangor Bangor Bangor Ellsworth Bangor Bangor Bangor Bangor Brooks Bangor Bangor Bangor Bangor Bangor Belfast

Nickerson, Margaret B. Nickerson, Pauline D. Novak, Archie G. Olander, Paul Olds, Corwin H. O'Leary, Simon Patten, E. Eugina Patten, Stella V. Peirce, Mrs. Florence H. Pierce, Carleton F. Plaisted, Aubrey M. Poole, Herbert Pooler, Grace E. Poulin, Beatrice M. Powers, Ruth W. Pratt, Susan C. Preble, Beatrice Preble, Lucie W. Preble, Mrs. Regina H. Quinn, Marion F. Ranney, Ruth M. Reed, James W. Ricker, Elizabeth L. Ricker, Nellie R. Robbins, Arlene Robinson, Mary C. Robinson, Veysey H. Ross, Stanley W. Rowe, Carrie H. Rowell, Vernice L. Ryder, Sarah A. Saunders, Henry W., Jr. Sawyer, Leonard Sawyer, Sheldon I. Scott, Ermo H. Scott, Lillian H. Sherman, Ray W. Silverman, Leo M. Skofield, Faye S. Small, Irving W. Smith, Harriet B.

Belfast Bangor Bangor Bangor Bangor Bangor Bangor Bangor Bangor Bangor Gardiner Bangor Dexter Bangor Robinhood Old Town Bangor Bangor Old Toum Topsham Bangor New Haven, Conn. Turner Topsham Lincoln Bangor Old Town Machias Bangor Bangor Bangor Westbrook Bangor Millinocket Castine Medford, Mass. Bangor Portland Bangor Bangor Bangor

UNIVERSITY EXTENSION DIVISION

Soucy, Mary D. Stover, Mrs. Elsie T. Steward, Dorothy M. Steward, Raymond B. Stewart, Horace S. Straw, Mae O. Stuart, Ervin Studley, Millard F. Sullivan, Mary E. Thomas, Benjamin B. Tibbetts, Earl S. Tracy, Donald E. True, Cora B. Turner, O'Dillion C. Upton, J. Stewart Varney, George N. Vincent, Verne Vose, George A. Wadsworth, Roger Walsh, Mary A. Webster, Mary L. Welsh, Mary E. West, William F. Weymouth, Florence F. Weymouth, Hildred L. Whitley, Flora Wilde, Arthur D. Willard, Thel:na G. Willey, Marjorie D. Williams, Elmer B. Wood, Mrs. Doris K. Woodard, Ardis J. Worcester, Winnifred Wray, R. Arline Young, Mrs. Kathleen M. Young, Ruth E. Zakarian, Lavon

Bangor Bangor Abbot Kingfield Bangor Bangor Essex, Mass. Weeks Mills Bangor Bangor Horeland Bangor Bangor Brewer Bangor Belfast Bangor Oakland Solon Old Town Old Town Winter Harbor Old Town Bangor Brewer Old Torm Skowhegan Portland

General Summary

FACULTY

President	1
Deans and Directors	8
Professors	41
Associate Professors	18
Assistant Professors	29
	1
Lecturers	42
Instructors	6
Graduate Fellows	6
Assistants	25
Agricultural Experiment Station Staff	
Agricultural Extension Service Staff	48
Total	225
By Divisions	
President	1
College of Agriculture	32
College of Arts and Sciences	63
	36
College of Technology	26

Agricultural Experiment Station Agricultural Extension Service Officers common to all colleges Total

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48

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STUDENTS

1928-1929

	Total	Men	Women
Graduate Students	32	23	9
Seniors	276	211	65
	276	211	65
Juniors	346	256	90
Sophomores Freshmen	413	320	93

Specials	3 6	28	8
Upperclass Students Conditioned for			
Admission	34	31	3
Two-Year Course in Agriculture			
First Year 4			
Second Year 5	9	9	0
	1422	1089	333
Summer Session	316	131	185
Grand Total (amitting duplicates			
Grand Total (omitting duplicates	1696	1192	504
in Summer Session)			504
University Extension Division	268	93	175
CLASSIFICATION BY	Colleges		
Graduate Students	32	23	9
College of Agriculture	280	213	67
College of Arts and Sciences	597	341	256
College of Technology	513	512	1
	1422	1089	333

CANDIDATES FOR DEGREES

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Graduate Students		32
College of Agriculture		265
College of Arts and Sciences		574
College of Technology	-	506

1377

Additional candidates for the M.A. degree in the Summer Session

CLASSIFICATION BY RESIDENCE

Maine, by counties:		
Androscoggin	48	
Aroostook	97	
Cumberland	161	
Franklin	26	
Hancock	86	
Kennebec	82	
Knox	47	
Lincoln	17	
Oxford	70	
Penobscot	467	
Piscataquis	48	
Sagadahoc	14	
Somerset	48	
Waldo	38	
Washington	77	
York	92	
Maine	1418	
Massachusetts	161	
New York	36	
Connecticut	32	
New Hampshire	9	
Pennsylvania	9	
New Jersey	6	
Maryland	4	

Maryland Ohio Rhode Island Vermont Delaware District of Columbia Florida Indiana Iowa Kentucky Tennessee Wisconsin Canada China British West Indies

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